COMMUNITY DEVELOPMENT AGENCY

TRANSPORTATION DIVISION

http://www.edcgov.us/DOT/

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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, Community Development Agency, Transportation Division, Tahoe Engineering (TE) 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, TE 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 TE. 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: CSA 5 Erosion Control Project (JN 95157)	
Description: Construction of erosion control and water quality improvement facilities.	
Location: The Project area is located in eastern El Dorado County, within the Lake Tahoe Basin, in Tahoma near the west shore of Lake Tahoe. The Project is located in the southwestern section of the Lake Tahoe Basin in Sections 17 & 18, Township 14 North, Range 17 East, Mount Diablo Meridian. The Project is bounded by Lake Tahoe and First Avenue to the east, the El Dorado/Placer County line to the north, Chinkapin Road and Placer Street to the west and Cedar Street to the South.	
Owner/Applicant: County of El Dorado, Community Development Agency, Transportation Division, Tahoe Engineering	
Lead Agency: County of El Dorado, Community Development Agency, Transportation Division, Tahoe Engineering	
County Contact: Daniel Kikkert, Senior Civil Engineer	**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, Community Development Agency, Transportation Division, Tahoe Engineering office (Office), 924B Emerald Bay Road, South Lake Tahoe, CA. The Office's hours of operation are from 8:00 am – 5:00 pm, Monday through Friday. The Office is closed on

Saturday and Sunday. The document is also available for review at the County of El Dorado South Lake Tahoe Branch Library (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 proposes to implement the CSA 5 Erosion Control Project (Project) during the 2016 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 Project is defined in the TRPA EIP as Project #01.01.01.0067 (TRPA 2012; formerly #10062, TRPA 2001). This Project is being designed and constructed with financial assistance from the United States Forest Service - Lake Tahoe Basin Management Unit (USFS-LTBMU), TRPA mitigation funds, and Community Service Area 5 Assement Funds.

The Project site is an existing residential development near the west shore of Lake Tahoe bordered by Lake Tahoe and First Avenue to the east, the El Dorado/Placer County line to the north, Chinkapin Road and Placer Street to the west and Cedar Street to the south (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 (ROW). The 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 Lake Tahoe from the Project area, thereby improving water quality in Lake Tahoe.

PROJECT BACKGROUND

TE utilized the Lake Tahoe Basin Storm Water 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 in 2015:

- Draft Project Feasibility Report
- Final Project Feasibility Report
- Preferred Alternative Memorandum

In October of 2015, TE completed a Draft Project Feasibility Report that investigated existing conditions and identified problem areas within the Project boundary as well as proposed alternative solutions 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, TE completed a Final Project Feasibility Report in December 2015. Finally, based upon further feedback, TE completed a Preferred Alternative Memorandum in December 2015.

PROPOSED PROJECT

The proposed Project was selected by TE with input from the PDT and the public and is described in further detail below (outlined on Figure 2) 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 the Lahontan Regional Water Quality Control Board (RWCQB) regulations.

The Project area contains existing storm drain systems which collects and conveys storm water through a series of basins, corrugated metal pipe (CMP) risers, drainage inlets, and both solid and perforated CMPs to three existing outfalls which drain into Lake Tahoe. This Project will be focused on reducing the peak flows and volumes as well as increasing the water quality of the runoff prior to reaching the outfall.

The proposed Project will implement source control, hydrologic control, and treatment options to meet the Project goals and objectives. The source control will be to provide erosion control measures on targeted eroding roadside slopes and

shoulders as well as stabilizing roadside drainages. Hydrologic controls will be met through construction of roadside conveyance systems, drainage inlets, replacement of inefficient CMP risers, and construction of offline/inline infiltration systems which will work towards reductions in peak flows and volumes. During construction, pipe conditions not previously observed may necessitate replacement of existing pipes not previously identified in Figure 2. Treatment measures will consist of infiltrating channels and subsurface infiltration systems which will be designed to capture and infiltrate the first flush of storm water runoff. The existing basins will also be rehabilitated to enhance the infiltration and capturing capacities of the basins.

Locations requiring source control include bare eroding slopes and shoulders on Antelope Way, Placer Street, Alder Street, Tenth, Ninth, and Seventh Avenues, and at the intersections of Alder Street & Eighth Avenue and Elm Street & Sixth Avenue. Rock slope protection or revegetation measures are proposed for stabilization of the eroding slopes while armored channels, swales, AC dike, or AC pavement are proposed for the eroding shoulders. The locations to receive these treatments are within County ROW and two CTC parcels (APN 14-302-02 and APN 14-303-12). If the site will allow, the proposed AC dike on Alder Street, between Antelope Way and Tenth Avenue, will be changed to an armored channel to allow for infiltration in addition to conveyance. For the work on Antelope Way and Placer Street, the proposed armored channel may be changed to AC dike or another type of conveyance facility to ensure improvements remain within the County ROW and minimize soil disturbance. Further north on Placer Street, runoff from the south will be conveyed into an infiltrating CMP inlet for treatment before continuing through the subdivision via existing roadside ditches, channels, and storm drain system which ultimately discharge to the Gray Basin in Placer County. For the other locations on Antelope Way, runoff will receive treatment in infiltrating CMP inlets installed on existing storm drain pipes. Infiltrating CMP inlets will also be installed on existing pipes on Chinkapin Road, Timber Wolf Drive, and Poplar Street at Seventh Avenue. Infiltrating CMP inlets will be installed to replace existing CMP inlets at various locations along the storm drain system on Alder Street. In addition to infiltration, the CMP inlets will have capacity for trapping sediment; lessening the impact of sedimentation of the existing infiltrating storm drain pipes. New infiltrating CMP inlets will also be installed on the corners of Poplar Street at Seventh Avenue. A pipe will be installed to convey overflow from the inlets east, onto the undeveloped portion of Poplar Street for additional treatment within the County ROW. For all other locations, overflow will be conveyed via existing channels or pipes into existing basins prior to storm runoff reaching Lake Tahoe.

Ponding and sediment deposition is evident on both Eighth Avenue, near Pine Street, and Wilson Avenue, near Pine Street. To improve hydrologic conveyance in these locations the reestablishment of the roadside conveyance systems is proposed along with the installation of an infiltrating drainage inlet and/or a pipe to convey runoff into existing storm drain systems. As with the infiltrating CMPs, the infiltrating drainage inlets also have the capacity for trapping sediment. For the Eighth Avenue location, runoff not treated by these improvements will continue to receive treatment in the Gray Basin. For the Wilson Avenue location, runoff will receive treatment in the drainage inlet as well as a proposed infiltration gallery located within an existing drainage easement on the condominium access road prior to discharging into Lake Tahoe. If it is determined that the drainage easement will not accommodate an infiltration system due to utility constraints then Pine Street, within the County ROW between Wilson Avenue and Highway 89, will be considered for an alternate location.

To increase treatment of runoff along Elm Street, an offline infiltration system is proposed near the corner of Elm Street and Fifth Street. This facility will be within County ROW and, if the ROW width is limited, potentially a CTC parcel (APN 15-063-18) will be utilized. Stormwater in the existing storm drain system in Elm Street will be intercepted and treated in the offline infiltration system. Any overflow or by-pass runoff will continue in the storm drain system to the existing basin on Sixth Avenue.

Most of the runoff from the Project area is conveyed via pipe and channel to existing basins. These basins capture sediment and infiltrate runoff prior to flows reaching Lake Tahoe. To increase and/or restore infiltration for five infiltrating sediment basins within the Project area, revegetation is proposed. This work includes clearing sediment and debris from within the basins and scarifying the soil. Following seed placement, a blanket will be staked over the seeded areas. The CMP riser in the basin on Fourth Avenue will be replaced and reconnected to the outlet pipe. The outlet pipe, currently CMP, will be replaced with and HDPE pipe if pipe conditions warrant. For the basin on Sixth Avenue, an access road that allows for vegetative growth will be established on the south side of the basin and a gate installed in the existing fence for walk-in basin access. For basins that have been observed to capture a fair amount of sediment, rock will be installed in the basin bottom in place of the seed and blanket in order to provide a surface that is compatible to more frequent maintenance activities.

SUMMARY OF ENVIRONMENTAL ANALYSIS

The TE prepared an Initial Study to assess the proposed Project's potential effects on the environment and the significance of those effects. Based on the Initial Study, TE determined that the proposed Project will not have any significant environmental impacts with the implementation of mitigation measures. TE 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, public services and recreation.
- The proposed Project will have a less than significant impact in the areas of aesthetics, air quality, biological resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, transportation and traffic, and utilities and service systems. Discussion on each of these findings is provided below.

Aesthetics: A limited part of the Project area is visible from State Route 89, which is a designated Scenic Highway. The intent of the Project is to improve the quality of the area by stabilizing bare soil areas with native vegetation, by enhancing drainage features and by 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 proposed 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 Best Management Practices, 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 July 1, 2015. The biological assessment surveys observed the Tahoe yellow cress which is a federal/state-listed candidate species in the Project study area. This species is located near the outlet of the Pine Street drainage system where no improvements are proposed. Therefore it is highly unlikely that the project will impact the plant. There are also recorded occurrences of special status species immediately adjacent to the Project area. Suitable botanical habitat conditions do exist within 0.5 miles of the Project area and include Stebbins phacelia nad an identified fen area. Suitable habitat conditions do exist within 0.5 miles of the Project area for bald eagle, northern goshawk, osprey, California spotted owl, waterfowl, Sierra Nevada mountain beaver, American badger, Sierra Nevada snowshoe hare, fisher (West Coast distinct population segment), Sierra Nevada red fox, America marten, and mule deer. A noxious weed survey was also conducted within the Project survey area on July 1, 2015. The survey identified a single noxious weed species within the Project area: oxeye daisy (*Leucanthemum vulgare*). A Noxious Weed Mitigation/Eradication Protocol (Protocol) will be implemented by TE as part of the 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, TE 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 June 25, 2015. In addition, consultation with the Washoe Tribe of Nevada and California was initiated for this project. Fifteen previous cultural resources studies have been conducted in the vicinity of the Project area, including 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 550 cubic yards (20,000 square feet), which will cause temporary soil erosion in the Project area. 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 Best Management Practices prior to and during construction to prevent erosion within the Project area. The Transportation Division 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 proposed 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 proposed Project is to benefit water quality by improving the existing storm water conveyance systems and associated facilities in the Project area; thereby reducing the amount of pollutants entering 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 TE 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 Lahontan RWCQB 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 TE will advise potentially affected residents of the proposed construction activities including duration, schedule, and contacts for filing noise complaints. TE and/or contractor will respond to all noise complaints received within one working day and will work to resolve the issue within two working days.

Recreation: The proposed Project will have no impact on recreation within the Project area.

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 adhere to the TE prepared SWPPP and a Temporary Erosion Control Plan 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, TE's analysis focused on construction impacts estimated using TE'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. TE has reviewed past construction logs for projects equivalent in size and scope to the 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 round-trip 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 Project would emit approximately 43 metric tons of CO_2 equivalents.

This estimated amount is negligible in comparison to the statewide inventory of 460,000,000 metric tons discussed below in the Initial Study (0.00000010 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 March 25, 2016. A copy of the Initial Study/Proposed Mitigated Negative Declaration is available for public review at the County of El Dorado, Transportation Division, Tahoe Engineering Group (Office) at 924 B Emerald Bay Road, South Lake Tahoe, CA 96150 between the hours of 8:00 am and 5:00 pm Monday through Friday. The Office is closed Saturday and Sunday. 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.

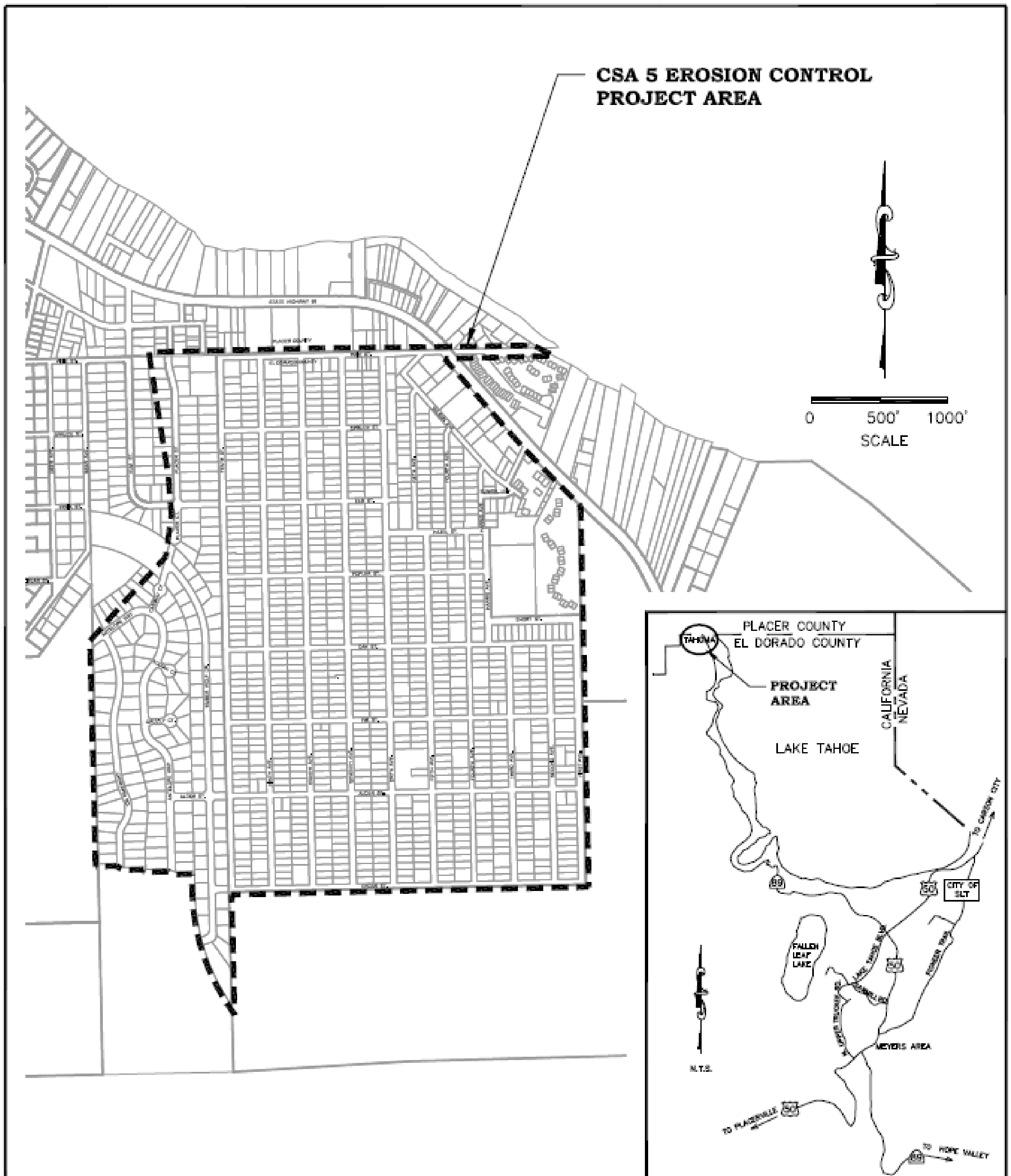
All parties providing written comments during this timeframe will be notified of the upcoming hearing before the Board of Supervisors. Additional information may be obtained by contacting the County of El Dorado, Community Development Agency, Transportation Division, Tahoe Engineering at (530) 573-7900 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.

Daniel Kikkert, Senior Civil Engineer
County of El Dorado—Lead Agency

Recorder's Certification

FIGURE 1



COUNTY OF EL DORADO
COMMUNITY DEVELOPMENT AGENCY
TRANSPORTATION DIVISION

CSA 5
EROSION CONTROL PROJECT

LOCATION MAP

FIGURE 1

DATE: 06/2015 | PROJECT NO.: 95157 | BY: ALD

CEQA
INITIAL STUDY/
PROPOSED MITIGATED NEGATIVE DECLARATION

CSA 5
EROSION CONTROL PROJECT
EIP PROJECT # 01.01.01.0067
JN 95157

STATE CLEARINGHOUSE # TBD

Prepared by:

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

DRAFT
February 2016

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APPENDICES

1.0 INTRODUCTION

The County of El Dorado (County), Community Development Agency, Transportation Division (Transportation), Tahoe Engineering (TE) prepared this Draft Initial Study to identify and assess the anticipated environmental impacts of the proposed CSA 5 Erosion Control Project (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.

TE has reviewed the 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 Final Project Feasibility Report; however, should significant impacts or new mitigation measures result from the CEQA review process, TE will recirculate the document for public review. The public review period for the Draft Initial Study/Proposed Mitigated Negative Declaration shall begin on February 25, 2016 and end on March 25, 2016. Comments received after 5:00 pm on March 25, 2016 will not be considered. Written responses should be sent to Daniel Kikkert, Senior Civil Engineer, at the following address:

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

2.0 PROJECT DESCRIPTION AND LOCATION

TE proposes to implement the proposed Project during the 2016 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 Project is defined in the TRPA EIP as Project #01.01.01.0067. This proposed Project is being designed and constructed with financial assistance from the United States Forest Service - Lake Tahoe Basin Management Unit (USFS-LTBMU), TRPA mitigation funds, and Community Service Area 5 Assessment Funds.

The Project site is an existing residential development in Tahoma near the west shore of Lake Tahoe and is bounded by Lake Tahoe and First Avenue to the east, the El Dorado/Placer County line to the north, Chinkapin

Road and Placer Street to the west and Cedar Street to the south (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 (ROW). The Project will not change the use of the site or surrounding area. The proposed Project will benefit the natural environment with the implementation of the proposed improvements. After Project completion, less sediment will enter Lake Tahoe from the Project area, thereby improving water quality in Lake Tahoe. The proposed 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 (BMPs). Figure 2 outlines the proposed Project, and can be found at the end of this Initial Study.

2.1 Project Need and Existing Conditions

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 Project be implemented to bring all County roads into compliance with BMPs 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 TE, California Tahoe Conservancy (CTC), TRPA and USFS-LTBMU staff. The problem areas the Project intends to address are listed below.

Source Erosion

- Eroding Slopes
- Eroding Roadside Shoulders

Water Quality

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

Drainage and Infrastructure

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

The Project area contains existing storm drain systems which collects and conveys storm water through a series of basins, corrugated metal pipe (CMP) risers, drainage inlets, and both solid and perforated CMPs to three existing outfalls which ultimately drain to Lake Tahoe. These three outfall locations include (from north to south): from the Gray Basin which drains to McKinney Creek; from an existing storm drain system east of Pine Street, through a drainage easement on the condominium access road which drains to Lake Tahoe; and through an existing storm drain / drainage channel system which conveys flows beneath State Route 89 and ultimately to Lake Tahoe. This Project will be focused on reducing the peak flows and volumes as well as increasing the water quality of the runoff prior to reaching these outfalls.

2.2 Project Approach

TE utilized the Lake Tahoe Basin Storm Water Quality Improvement Committee's (SWQIC) *Formulating and Evaluating Alternatives for Water Quality Improvement Projects* document for guidance in selecting a preferred Project alternative. The 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 Project Feasibility Report (County, 2015)
- Final Project Feasibility Report (County, 2015)
- Preferred Alternative Memorandum (County, 2015)

In October of 2015, TE completed a Draft Project Feasibility Report that investigated existing conditions and identified problem areas within the Project boundary as well as proposed alternative solutions with 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, TE completed a Final Project Feasibility Report in December 2015. Finally, based upon further feedback, TE completed a Preferred Alternative Memorandum in December 2015.

The above documents are available through the County. 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, TE 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 Final Project 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 such as 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 TE, on the preferred Project alternative.

TE 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 focuses mainly on capturing and treating storm water and fine sediment. The BMP alternatives were developed for each problem area and were analyzed for effectiveness at solving the water quality issue at each location 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 15 outlines the existing conditions and known problem areas within the Project area. Figure 2 identifies the proposed improvements for the preferred Project alternative, which is described in further detail below in Section 2.4.

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

Alternative 1

Figure 16 depicts the facilities and treatments proposed for Alternative 1. Conditions requiring source control include eroding roadside ditches, eroding slopes, and areas of sediment deposition.

An armored channel is proposed for the eroding roadside ditches along Antelope Way and Placer Street. Runoff will be conveyed south, along Antelope Way, to the nearest pipe crossing. At the Antelope Way/Placer Street intersection, an armored channel with AC dike will stabilize the eroding roadside ditch and direct flows over a slope to a rock dissipator on a CTC parcel. Along Placer Street, runoff will be conveyed in an armored channel to Timber Wolf Drive on the east side of the street and a CMP inlet on the west side. If site conditions warrant, AC dike or AC swale would be proposed as an alternative to the armored channels.

AC dike is proposed for the eroding roadside ditches along both sides of Alder Street. Runoff will be conveyed along the dike to the pipe crossing at the intersection of Alder Street and Timber Wolf Drive or to CMP inlets at the intersection of Alder Street and Tenth Avenue. If site conditions warrant, an armored channel would be proposed as an alternative to the AC dike. For the eroding shoulder and roadside ditch at the corner of Elm Street and Sixth Avenue, minor regrading to restore the flowpath is proposed with a vegetated channel to direct runoff from the roadside ditches to the CMP inlet.

AC dike or AC swale is proposed for stabilizing the eroding roadside ditch along Seventh Avenue at Poplar Street. CMP inlets on Poplar Street will intercept surface runoff currently impacting Seventh Avenue and will redirect this runoff, via pipe, to the undeveloped portion of Poplar Street for infiltration within the County ROW.

Rock slope protection is proposed for stabilizing the eroding slopes at Placer Street and Timber Wolf Drive, Antelope Way and Alder Street, Alder Street and Tenth Avenue, and Oak Street and Tenth Avenue; however, revegetation will be considered if site conditions will allow vegetation growth.

For the disturbed shoulder at the intersection of Alder Street and Eighth Avenue, reconfiguring the radius and repaving the AC curve return would stabilize the road shoulder and provide a paved surface for vehicle traffic.

Sediment deposition within the roadside ditches is evident at the north end of Eighth Avenue and on Wilson Avenue near Pine Street. Minor regrading and seeding is proposed at the north end of Eighth Avenue. A pipe will be installed to convey runoff from the restored roadside ditch into the storm drain system in Pine Street. At Wilson Avenue, a drainage inlet with treatment capabilities and a parking barrier, such as a 6" vertical curb, are proposed.

Sediment capture and treatment of storm water on Chinkapin Road, Antelope Way, Placer Street, and Timber Wolf Drive will be achieved by installing CMP inlets with infiltrating and sediment trapping capabilities at select locations. Sediment capture and treatment of storm water along the existing storm drain systems east of Timber Wolf Drive will be achieved by replacing existing CMP inlets at select locations with infiltrating inlets that have sediment trapping capabilities.

To increase and/or restore infiltration for five infiltrating sediment basins, revegetation is proposed. This work includes clearing sediment and debris from within the basins and scarifying the soil. Following seed placement, a blanket will be staked over the seeded areas. The CMP riser in the basin on Fourth Avenue will be replaced and reconnected to the outlet pipe. For the basin on Sixth Avenue, an access road that allows for vegetative growth will be established on the south side of the basin and a gate installed in the existing fence for walk-in basin access. For basins that appear to capture a fair amount of sediment, rock will be installed in the basin bottom in place of the seed and blanket in order to provide a surface that is compatible to more frequent maintenance activities.

To maximize treatment of stormwater before discharging into the lake, infiltration systems or galleries are proposed on Elm Street and the condominium access road, east of Highway 89. On Elm Street, the system will be in the road shoulder or within an adjacent CTC parcel. It will receive runoff from 9.3 acres of the Upper Area Watershed. The system will be located within an existing drainage easement on the condominium access road east of Pine Street and will receive runoff from all of the Upper Area Watershed (49.7 acres) and a portion of Highway 89. If it is determined that the easement on the condominium access road will not accommodate an infiltration system, Pine Street, within the County ROW between Wilson Avenue and Highway 89, will be considered for an alternate location.

Alternative 2

Figure 17 depicts the facilities and treatments proposed for Alternative 2. Conditions requiring source control include eroding roadside ditches, eroding slopes, and areas of sediment deposition. AC dike is proposed for the eroding roadside ditches along both sides of Alder Street. Runoff will be conveyed along the dike to the pipe crossing at the intersection of Alder Street and Timber Wolf Drive or to CMP inlets at the intersection of Alder Street and Tenth Avenue. If site conditions warrant, an armored channel would be proposed as an alternative to the AC dike. For the eroding roadside ditch at the corner of Elm Street and Sixth Avenue, minor regrading to restore the flowpath is proposed. A vegetated channel will be constructed to direct runoff from the roadside ditches to the CMP inlet.

Rock slope protection is proposed for stabilizing eroding slopes at Alder Street and Tenth Avenue and Oak Street and Tenth Avenue; however, revegetation will be considered if site conditions will allow for vegetation growth.

For the disturbed shoulder at the intersection of Alder Street and Eighth Avenue, reconfiguring the radius and repaving the AC curve return would stabilize the road shoulder and provide a paved surface for vehicle traffic.

Sediment deposition within the roadside ditches is evident at the north end of Eighth Avenue and on Wilson Avenue near Pine Street. Minor regrading and seeding is proposed at the north end of Eighth Avenue. A pipe will be installed to convey runoff from the restored roadside ditch into the storm drain system in Pine Street. At Wilson Avenue, a drainage inlet with treatment capabilities and a parking barrier, such as a 6" vertical curb, are proposed.

Sediment capture and treatment of storm water will be increased by replacing the existing CMP inlets with infiltrating inlets that have sediment trapping capabilities and by upgrading the perforated CMP systems with smooth wall perforated High Density Polyethylene (HPDE) pipe along Alder, Fir, and Elm Streets.

To increase and/or restore infiltration for five infiltrating sediment basins, revegetation is proposed. This work includes clearing sediment and debris from within the basins and scarifying the soil. Following seed placement, a blanket will be staked over the seeded areas. The CMP riser in the basin on Fourth Avenue will be replaced and reconnected to the outlet pipe. For the basin on Sixth Avenue, an access road that allows for vegetative growth will be established on the south side of the basin and a gate installed in the existing fence for walk-in basin access. For basins that appear to capture a fair amount of sediment, rock will be installed in the basin bottom in place of the seed and blanket in order to provide a surface that is compatible to more frequent maintenance activities. To maximize infiltration within the channel system through Watershed B, clearing of sediment and debris and scarifying to loosen the soil would be performed. Any rock lining the channels would be restored, sod salvaged and transplanted, disturbed areas revegetated and, if applicable, blanket placed for stabilization of seeded areas.

To maximize treatment of stormwater before discharging into the lake, an infiltration system or gallery is proposed on the condominium access road, east of Highway 89. The system will be located within an existing drainage easement on the condominium access road, east of Pine Street, and will receive runoff from all of the Upper Area Watershed (49.7 acres) and a portion of Highway 89. If it is determined that the easement on the condominium access road will not accommodate an infiltration system, Pine Street, within the County ROW between Wilson Avenue and Highway 89, will be considered for an alternate location.

Alternative 3

Figure 18 depicts the facilities and treatments proposed for Alternative 3. Conditions requiring source control include eroding roadside ditches, eroding slopes, and areas of sediment deposition. AC dike is proposed for the eroding roadside ditches along both sides of Alder Street. Runoff will be conveyed along the dike to the pipe crossing at the intersection of Alder Street and Timber Wolf Drive or to CMP inlets at the intersection of Alder Street and Tenth Avenue. If site conditions warrant, an armored channel would be proposed as an alternative to the AC dike. For the eroding roadside ditch at the corner of Elm Street and Sixth Avenue, minor regrading to restore the flowpath is proposed. A vegetated channel will be constructed to direct runoff from the roadside ditches to the CMP inlet.

Rock slope protection is proposed for stabilizing eroding slopes at Alder Street and Tenth Avenue and Oak Street and Tenth Avenue; however, revegetation will be considered if site conditions will allow for vegetation growth.

Sediment deposition within the roadside ditches is evident at the north end of Eighth Avenue, and on Wilson Avenue near Pine Street. Minor regrading and seeding is proposed at the north end of Eighth Avenue. A pipe will be installed to convey runoff from the restored roadside ditch into the storm drain system in Pine Street. At Wilson Avenue, a drainage inlet with treatment capabilities and a parking barrier, such as a 6" vertical curb, are proposed.

To maximize treatment of stormwater before discharging into the lake, infiltration systems or galleries are proposed on Elm Street and the condominium access road, east of Highway 89. On Elm Street, the system will be in the road shoulder or within an adjacent CTC parcel. It will receive runoff from 9.3 acres of the Upper Area Watershed. The system will be located within an existing drainage easement on the condominium

access road, east of Pine Street, and will receive runoff from all of the Upper Area Watershed (49.7 acres) and a portion of Highway 89. If it is determined that the easement on the condominium access road will not accommodate an infiltration system, Pine Street, within the County ROW between Wilson Avenue and Highway 89, will be considered for an alternate location.

2.4 Detailed Site Conditions and Proposed Project

The proposed Project was selected by TE, the PDT and the public and is described in further detail below 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 Regional Water Quality Control Board (RWQCB) regulations.

In order to meet the goals and objectives of the Project, the Feasibility Report outlined three alternatives for consideration by the public and the PDT. Based on the comments received, the professional judgment of Transportation personnel, and the analyses outlined in the Feasibility Report, Alternative 1 was chosen as the preferred alternative and is presented in Figure 2.

Locations requiring source control include bare eroding slopes and shoulders on Antelope Way, Placer Street, Alder Street, Tenth, Ninth, and Seventh Avenues, and at the intersections of Alder Street & Eighth Avenue and Elm Street & Sixth Avenue. Rock slope protection or revegetation measures are proposed for stabilization of the eroding slopes while armored channels, swales, AC dike, or AC pavement are proposed for the eroding shoulders. The locations to receive these treatments are within County ROW and two CTC parcels (APN 14-302-02 and APN 14-303-12). If the site will allow, the proposed AC dike on Alder Street, between Antelope Way and Tenth Avenue, will be changed to an armored channel to allow for infiltration in addition to conveyance. For the work on Antelope Way and Placer Street, the proposed armored channel may be changed to AC dike or another type of conveyance facility to ensure improvements remain within the County ROW and minimize soil disturbance. Further north on Placer Street, runoff from the south will be conveyed into an infiltrating CMP inlet for treatment before continuing through the subdivision via existing roadside ditches, channels, and storm drain system which ultimately discharge to the Gray Basin in Placer County. For the other locations on Antelope Way, runoff will receive treatment in infiltrating CMP inlets installed on existing storm drain pipes. Infiltrating CMP inlets will also be installed on existing pipes on Chinkapin Road, Timber Wolf Drive, and Poplar Street at Seventh Avenue. Infiltrating CMP inlets will be installed to replace existing CMP inlets at various locations along the storm drain system on Alder Street. In addition to infiltration, the CMP inlets will have capacity for trapping sediment; lessening the impact of sedimentation of the existing infiltrating storm drain pipes. New infiltrating CMP inlets will also be installed on the corners of Poplar Street at Seventh Avenue. A pipe will be installed to convey overflow from the inlets east, onto the undeveloped portion of Poplar Street for additional treatment within the County ROW. For all other locations, overflow will be conveyed via existing channels or pipes into existing basins prior to storm runoff reaching Lake Tahoe.

Ponding and sediment deposition is evident on both Eighth Avenue, near Pine Street, and Wilson Avenue, near Pine Street. To improve hydrologic conveyance in these locations the reestablishment of the roadside conveyance system is proposed along with the installation of an infiltrating drainage inlet and/or a pipe to convey runoff into existing storm drain systems. As with the infiltrating CMPs, the infiltrating drainage inlets also have the capacity for trapping sediment. For the Eighth Avenue location, runoff not treated by these improvements will continue to receive treatment in the Gray Basin. For the Wilson Avenue location, runoff will receive treatment in the drainage inlet as well as a proposed infiltration gallery located within an existing drainage easement on the condominium access road prior to discharging into Lake Tahoe. If it is determined that the drainage easement will not accommodate an infiltration system due to utility constraints then Pine Street, within the County ROW between Wilson Avenue and Highway 89, will be considered for an alternate location.

To increase treatment of runoff along Elm Street, an offline infiltration system is proposed near the corner of Elm Street and Fifth Street. This facility will be within County ROW and, if the ROW width is limited, potentially a CTC parcel (APN 15-063-18) will be utilized. Stormwater in the existing storm drain system in Elm Street will be intercepted and treated in the offline infiltration system. Any overflow or by-pass runoff will continue in the storm drain system to the existing basin on Sixth Avenue.

Most of the runoff from the Project area is conveyed via pipe and channel to existing basins. These basins capture sediment and infiltrate runoff prior to flows reaching Lake Tahoe. To increase and/or restore infiltration for five infiltrating sediment basins within the Project area, revegetation is proposed. This work includes clearing sediment and debris from within the basins and scarifying the soil. Following seed placement, a blanket will be staked over the seeded areas. The CMP riser in the basin on Fourth Avenue will be replaced reconnected to the outlet pipe. The outlet pipe, currently CMP, will be replaced with an HDPE pipe if pipe conditions warrant. For the basin on Sixth Avenue, an access road that allows for vegetative growth will be established on the south side of the basin and a gate installed in the existing fence for walk-in basin access. For basins that have been observed to capture a fair amount of sediment, rock will be installed in the basin bottom in place of the seed and blanket in order to provide a surface that is compatible to more frequent maintenance activities.

2.5 Project Benefits

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

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 and 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 Lake Tahoe.
3. 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 and channels/ditches with County approved stabilization (Source Control) BMPs.
2. Utilize various County approved sediment trapping BMPs (Sediment Traps, Infiltration, Sedimentation/Infiltration Basins, etc.) to capture sediment and de-icing abrasives from impervious surfaces and eroding areas.
3. Define and maximize the sweeping frequency within the ROW as funding and resources are available. Current County sweeping frequency is approximately once per year.
4. Utilize publicly owned parcels to capture more sediment prior to discharging into Lake Tahoe.

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 Lake Tahoe.
3. Utilize various storm water drainage systems to increase the time of concentration and reduce the peak discharge to the main discharge points.

Goal # 3 Objectives

1. Utilize the 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 the ROW with the Tahoe Resource Conservation District (TRCD)/National Resources Conservation Service (NRCS).

3.0 ENVIRONMENTAL SETTING AND SITE CHARACTERISTICS

The Project area is located in Tahoma near the west shore of Lake Tahoe, in portions of Sections 17 and 18, Township 14 North, Range 17 East, Mount Diablo Meridian. The total Project area is approximately 300 acres and encompasses County lots and ROW, Caltrans ROW, CTC, USFS, and privately owned residential lots and includes the Tahoe Cedars Tract, Tahoe Cedars Addition, Tahoe Cedars Addition No. 2, Wilson Subdivision No. 1, Sonoma Pines, Water's Edge Unit No. 1, and Westlake Village Unit Nos. 4, 5, and 9 subdivisions. Improvements within the Project area include paved County roads within 40 to 56 foot wide ROW, unpaved roads, rock slope protection, curb and gutter, AC dike, AC swales, solid wall and perforated pipe storm drain systems, infiltrating sediment basins, channels, and overhead and underground utilities. Portions of the paved County roads may not be centered within the ROW. Highway 89 improvements include a 24-foot wide paved road with 3' to 8' paved shoulders within an 80-foot wide ROW, curb and gutter, overhead and underground utilities, and drainage improvements conveying runoff under the Highway at a number of locations.

Within the Project area approximately 11% of the parcels are publicly owned by the CTC, USFS, or El Dorado County. The majority of the privately owned parcels have been developed with single-family residences.

Topography: The approximate elevation range of the Project site is from 6,230 to 6,506 feet above mean sea level (NGVD 1929). The terrain ranges in slope from 0-10% slope with some areas exceeding 38%.

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 95 (Intervening Area). The intervening area can be defined as that area between Basin 94 (General Creek at mouth) and Basin 96 (McKinney Creek at mouth). Basin 95 has a drainage area of 0.6 square miles and drains into Lake Tahoe through established storm drain and surface channel systems.

Runoff from the Project area is directed toward drainage facilities within the County ROW and is generally conveyed along existing road shoulders or rock-lined channels, into storm drain systems. These storm drain systems consist of inlet and junction structures that provide minimal to no treatment and solid wall or perforated CMP. TE has divided the Project area into 5 primary watersheds using topographic maps based on LiDAR developed in 2013 and field surveys. Two of the watersheds drain into channels at the subdivision boundary, east toward Highway 89. Runoff is then directed via pipe under the highway to channels that convey flow to Lake Tahoe. One of the watersheds drains into a storm drain system which outlets directly to Lake Tahoe and two watersheds are conveyed in a storm drain system into the Gray Basin, located within Placer County.

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 June of 2015, TE's consultant, Nichols Consulting Engineers (NCE) performed a review of published documents and conducted a field inspection to determine the presence of wetlands within the Project boundary. During the review and field inspection no wetland types were mapped, but jurisdictional "other" waters of the United States were identified within the survey area.

Soils in the Project area are generally moderately well drained and gravelly with groundwater (in one well within the Project area) observed typically50 feet below ground surface.

Geology/Soils: A preliminary review of regional geology within the Project area has shown that this geomorphic unit has a moderate to steep slope, rock outcrops, and two main geologic map units outlined below.

- *Tahoe Glacial Till (Ql):* This soil type is found within the central and eastern portion of the Project area and makes up approximately 85% of the Project site. This soil is comprised of Lake deposits of thin bedded sandy silts and clays.
- *Tahoe Glacial Till (Qta):* This soil type is found within the western edge of the Project area and makes up approximately 15% of the Project site. The Tahoe glacial deposits are a result of Pleistocene glaciation. They are dated at 56,000 to 118,000 years old. This till is directly deposited underneath the glacier and is an unconsolidated bouldery material with a distinct yellow-brown weathered matrix. The deposits are preserved as larger moraines with more rounded and broader crests. May include outwash deposits.

Land Use: TRPA has primary jurisdiction over land use and regulatory decisions for the Lake Tahoe Basin. According to TRPA Plan Area Statements (PAS), the Project area falls into two plan areas:

- 154 – Tahoma Residential
- 155 – Tahoma Commercial

The majority of the Project area lies in Plan Area 154, representing most of the developed, central portions of the Project area. The primary use of Plan Area 154 is residential at a density of one single family dwelling per parcel. The Plan Area is approximately 70-percent built out. The management plan has the focus of maintaining the residential status and existing character of the neighborhood. The subsequent information briefly summarizes information regarding plan area 154 found on the TRPA plan area statements:

- TRPA Plan Area # 154
- TRPA Plan Area Statement Tahoma Residential
- Land Use Classification Residential
- Special Designation Preferred Affordable Housing Area, Scenic Restoration Area

A small section of the northeastern limits of the Project area are located in the Tahoma Commercial area (PAS 155). This is a tourist area with a management strategy of redirection and a special designation of preliminary community plan area and scenic restoration area. Proposed improvements on Pine Street and Wilson Avenue would be within this area.

Cultural Resources: A cultural resource study, which included a literature search and an archaeological survey/inventory of the Project survey area, was completed on June 25, 2015. In addition, consultation with the Washoe Tribe of Nevada and California was initiated for this project. Fifteen previous cultural resources studies have been conducted in the vicinity of the Project area, including 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: Field surveys and assessments were conducted within the Project survey area for special status botanical species on July 1, 2015. The biological assessment surveys observed Tahoe yellow cress, federal/state-listed candidate, or proposed botanical species in the Project study area. Though identified in the Project area, the location is near an outfall of an existing storm drain system where no work or disturbance is proposed as part of this project. In addition, there are recorded occurrences of special status species immediately adjacent to the Project areas. Suitable habitat conditions do exist within 0.5 miles of the Project area and include Stebbins phacelia and a fen area. A noxious weed survey was also conducted within the Project survey area on July 1, 2015. The survey identified a single noxious weed species within the Project area: oxeye daisy (*Leucanthemum vulgare*). A Noxious Weed Mitigation/Eradication Protocol (Protocol) will be implemented by TE as part of the 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, TE 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 Jeffery pine. The Project area also contains isolated pickets of sierran mixed conifer, montane chaparral, white fire and urban/developed. 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 status botanical and wildlife species on July 1, 2015. The biological assessment surveys observed no federal or state-listed candidate, or proposed botanical or wildlife species in the Project study area. However, there are recorded occurrences of special status species immediately adjacent to the Project areas. Suitable habitat conditions do exist within 0.5 miles of the Project area for bald eagle, northern goshawk, osprey, California spotted owl, waterfowl, Sierra Nevada mountain beaver, American badger, Sierra Nevada snowshoe hare, fisher (West Coast distinct population segment), Sierra Nevada red fox, America marten, and mule deer. 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 460 million metric tons of carbon dioxide equivalents (CO2eq) in 2012. 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 37 percent of California's GHG emissions in 2012, followed by electricity generation (both in-state and out-of-state) at 21 percent, and industrial sources at 22 percent. The remaining sources of GHG emissions are residential and commercial activities at 12 percent, and agriculture at 8 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 technologic ally 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 Office of Planning and Research (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. 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. TE 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.

TE 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

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

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

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 on-site and off-site. 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 TE'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. TE has reviewed past construction project logs for projects equivalent in size and scope to the Project to determine the typical number and type of vehicles that are actively working to construct the Project each day. Based on this analysis, TE has formulated the following assumptions:

- Fifteen workers per day, driving five vehicles to work an average of 40 miles round-trip 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 43 metric tons of CO_2 equivalents.

This estimated amount is negligible in comparison to the statewide inventory of 460,000,000 metric tons discussed above (0.00000010 percent). The estimated amount is also significantly less than the SLOAPCD's significance threshold of 1,150 metric tons of CO_2 equivalents. Because of this and the fact that direct on-site and off-site 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 one public meeting, which was held on November 12, 2015. At the meeting, TE provided the public with information on the existing conditions, existing problem areas and the three proposed draft conceptual alternatives. TE also asked the public to express their questions and concerns related to the Project and its potential environmental impacts. Public notices for the meeting were mailed to all property owners within a 300 foot radius of the Project boundary. TE received feedback from the public on the Project alternatives that were presented, which helped to add additional problems and solutions, and to select the Preferred Project Alternative.

TE met and corresponded 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 RWQCB. The PDT meeting on the Project was held in October 2015. At this meeting the PDT discussed the existing conditions in the Project area as well as the draft alternatives for the Project as outlined in the Draft Project Feasibility Report. The PDT were given the opportunity to supply written and verbal comments on the Draft Project Feasibility Report. In December 2015 TE produced the Final Project Feasibility Report based on comments received from the PDT and public. These documents were provided to the PDT in December 2015 along with the Preferred Alternative Memorandum (PAM) which outlines the preferred Project.

In December 2015 the TE established a webpage on the County website providing information on the TE Program. Included in this page is a list of active Projects with corresponding links. This webpage is used as a location to update the public on updates to this and other projects.

5.0 RIGHT-OF-WAY REQUIREMENT

TE made every effort to locate proposed improvements within the County ROW, however in order to satisfy the goals and objectives of the Project, some public easements are required. These include the following Assessor Parcel Numbers (APNs):

California Tahoe Conservancy APNs:

- 014-302-02
- 014-303-12
- 015-063-18

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 there are jurisdictional waters but no wetlands in the Project area. The jurisdictional waters are classified as "other" waters of the United States. The proposed work in these areas includes replacement of an existing corrugated metal pipe riser and outlet pipe (if pipe conditions warrant) as well as the rehabilitation of an existing stormwater basin. It is anticipated that the work would be covered under a Nationwide Permit 03 – Maintenance (NW03). A NW03 application will be prepared and submitted to the Army Corp of Engineers based on the final Project design and proposed work within defined jurisdictional waters.

Clean Water Act Section 401

If the Project involves 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 RWQCB. A 401 Water Quality Certification application will be prepared and submitted to the Lahontan 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. Note that less than 1 acre of SEZ disturbance is planned as part of this Project.

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

A TRPA General Permit will be obtained prior to construction. A Land Capability Verification will be submitted to the TRPA for verification of the previously defined Land Capability District 1b lands (SEZ).

7.0 MITIGATION AND MONITORING

Mitigation measures are described in the attached Mitigation Monitoring and Reporting Program (Appendix B). TE 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 TE 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 TE 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 twenty 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. TE will inspect all Project improvements during the spring and fall of each year during the twenty-year maintenance period. TE 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

County of El Dorado, Transportation Division (County). 2015. CSA 5 Erosion Control Project Draft Project Feasibility Report.

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Tahoe Regional Planning Agency (TRPA). 2002. Plan Area Statements (PAS).

TRPA. 2012. Code of Ordinances.

TRPA. 1987. 208 Water Quality Management Plan.

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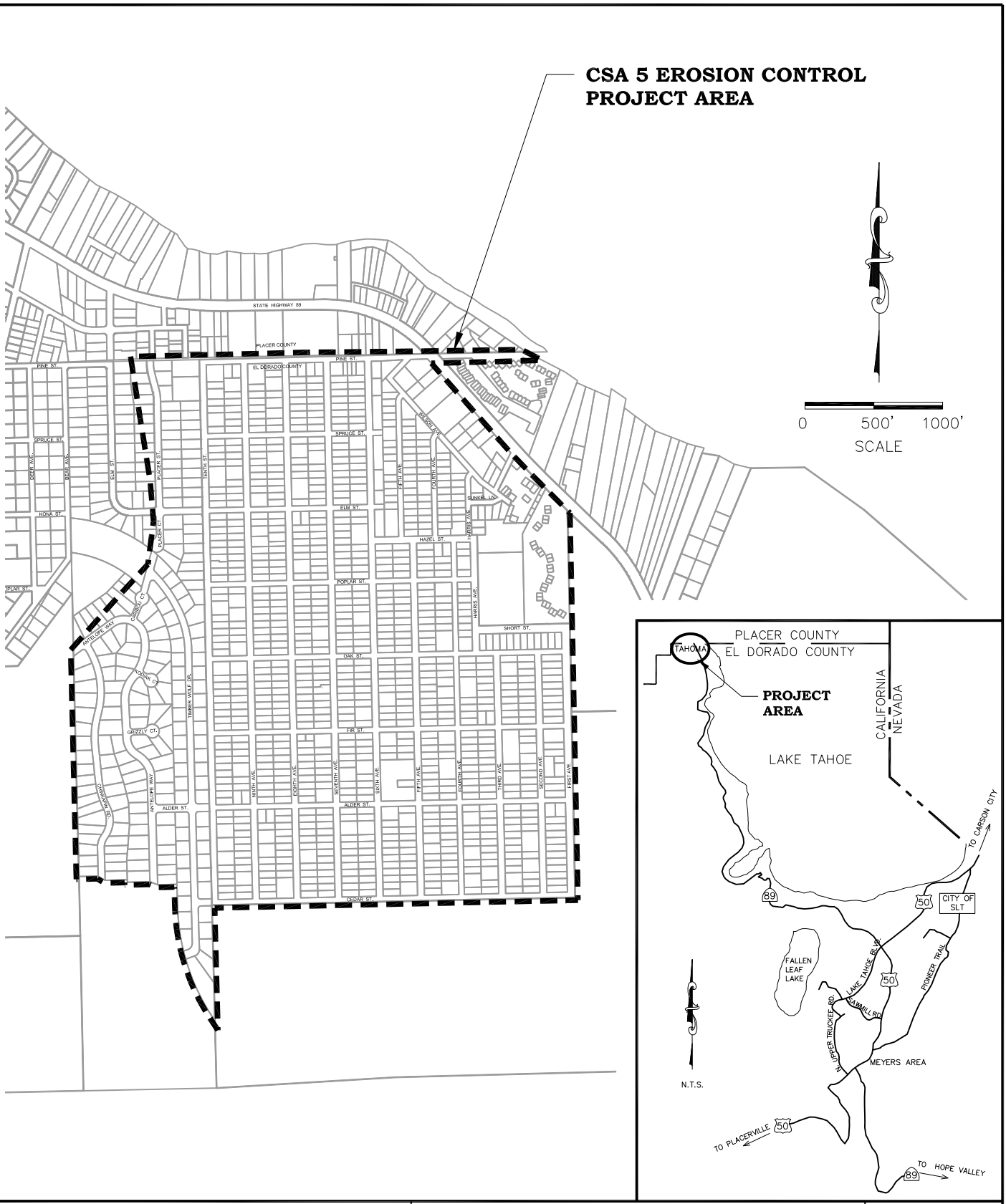
FIGURES



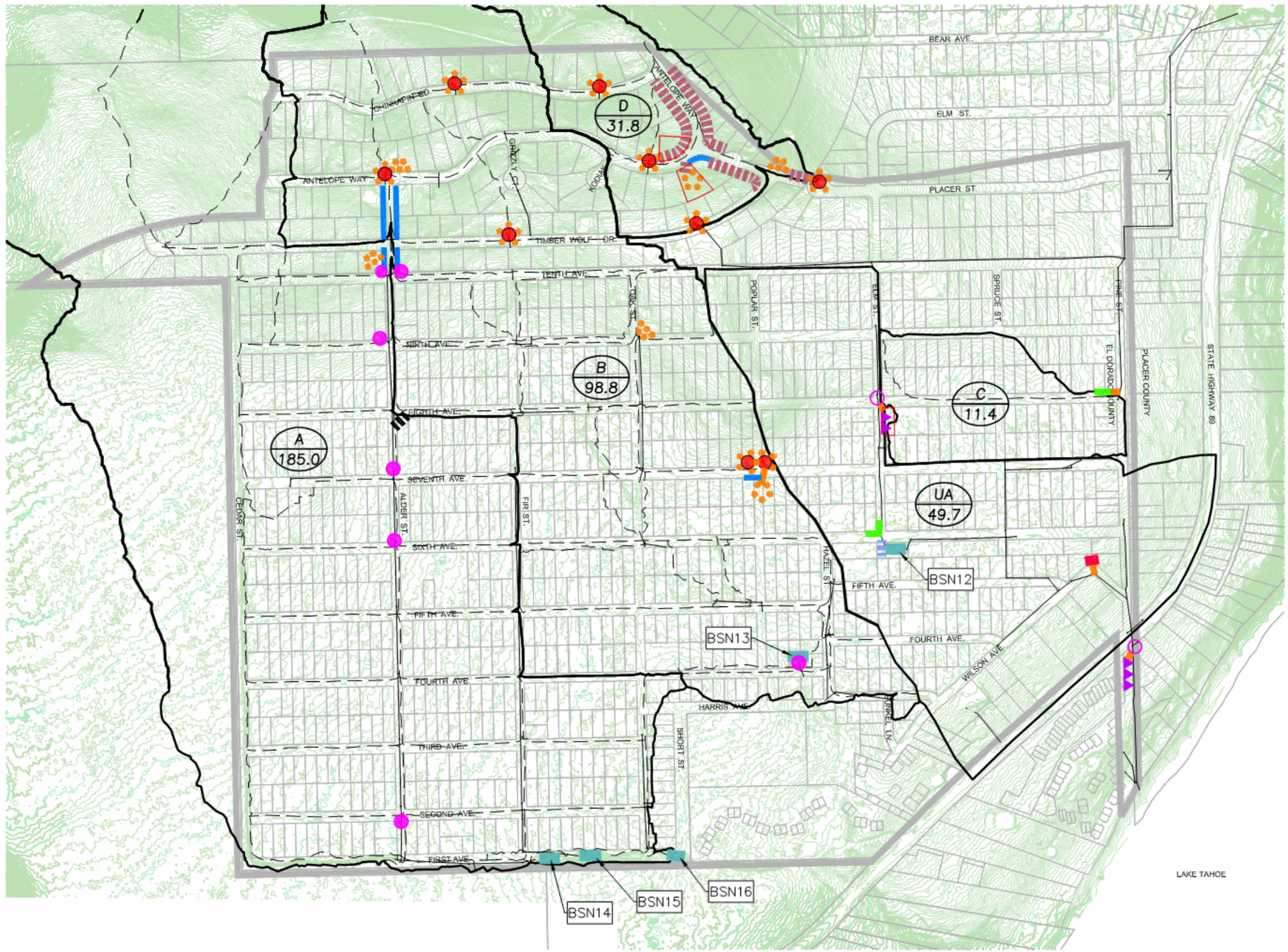
COUNTY OF EL DORADO
COMMUNITY DEVELOPMENT AGENCY
TRANSPORTATION DIVISION

CSA 5
EROSION CONTROL PROJECT

LOCATION MAP

FIGURE 1

DATE:	PROJECT NO.:	BY:
06/2015	95157	ALD



LEGEND

- D 31.8 — WATERSHED ID WITH AREA IN ACRES
- WATERSHED BOUNDARY
- SUB-WATERSHED BOUNDARY
- EXISTING PIPE
- BSN16 — EXISTING BASIN ID
- CONTOUR
- PROJECT BOUNDARY
- COUNTY ROW, CALTRANS ROW, OR PROPERTY LINES
- PROPOSED CMP I
- PROPOSED R&R CMP I OR CMP R
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED DRAINAGE INLET
- PROPOSED PIPE
- PROPOSED AC DIKE OR SWALE
- PROPOSED STABILIZE/RESTORE DITCH
- PROPOSED REVEGETATION AND BLANKET
- PROPOSED ARMORED CHANNEL
- PROPOSED AC PAVEMENT
- PROPOSED ACCESS
- PROPOSED ROCK SLOPE PROTECTION
- PROPOSED ROCK DISSIPATOR OR BOWL
- PROPOSED INFILTRATION SYSTEM
- CMP I OR CMP R — CORRUGATED METAL PIPE INLET OR RISER
- PUBLIC PARCEL TO RECEIVE IMPROVEMENTS

0 250' 500'
SCALE

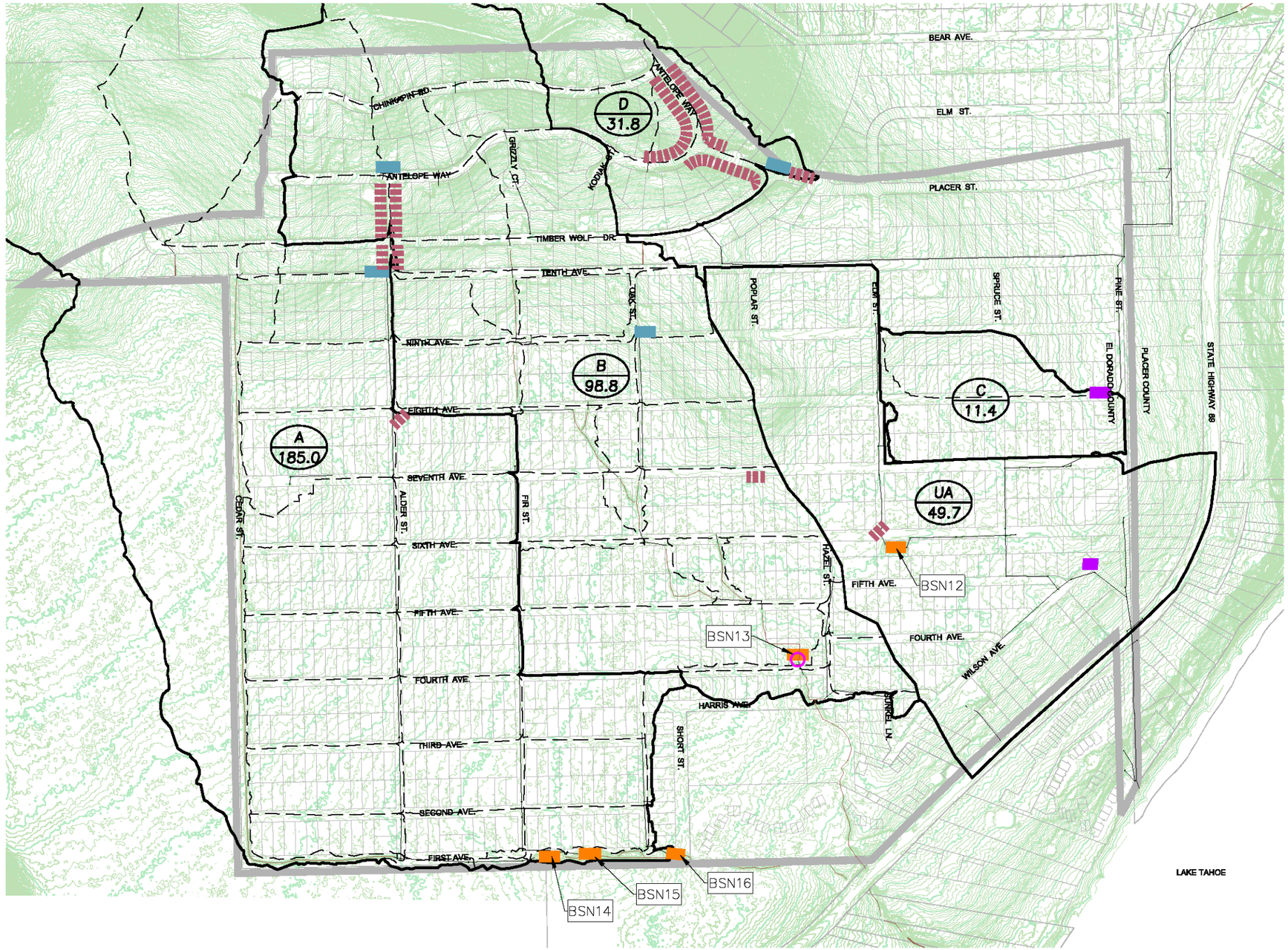
COUNTY OF EL DORADO
COMMUNITY DEVELOPMENT AGENCY
TRANSPORTATION DIVISION

CSA 5
EROSION CONTROL PROJECT

ALTERNATIVE 1

DATE: 12/2015 | PROJECT NO.: 95157 | BY: ALD

FIGURE 2



LEGEND

- D / 31.8 — WATERSHED ID WITH AREA IN ACRES
- WATERSHED BOUNDARY
- SUB-WATERSHED BOUNDARY
- EXISTING PIPE
- EXISTING BASIN
- BSN16 — EXISTING BASIN ID
- EXISTING CHANNEL
- CONTOUR
- PROJECT BOUNDARY
- COUNTY ROW, CALTRANS ROW, OR PROPERTY LINES
- ERODING SHOULDER OR DITCH
- ERODING SLOPE
- SEDIMENT ACCUMULATION
- EXISTING CMP RISER

0 250' 500'
SCALE

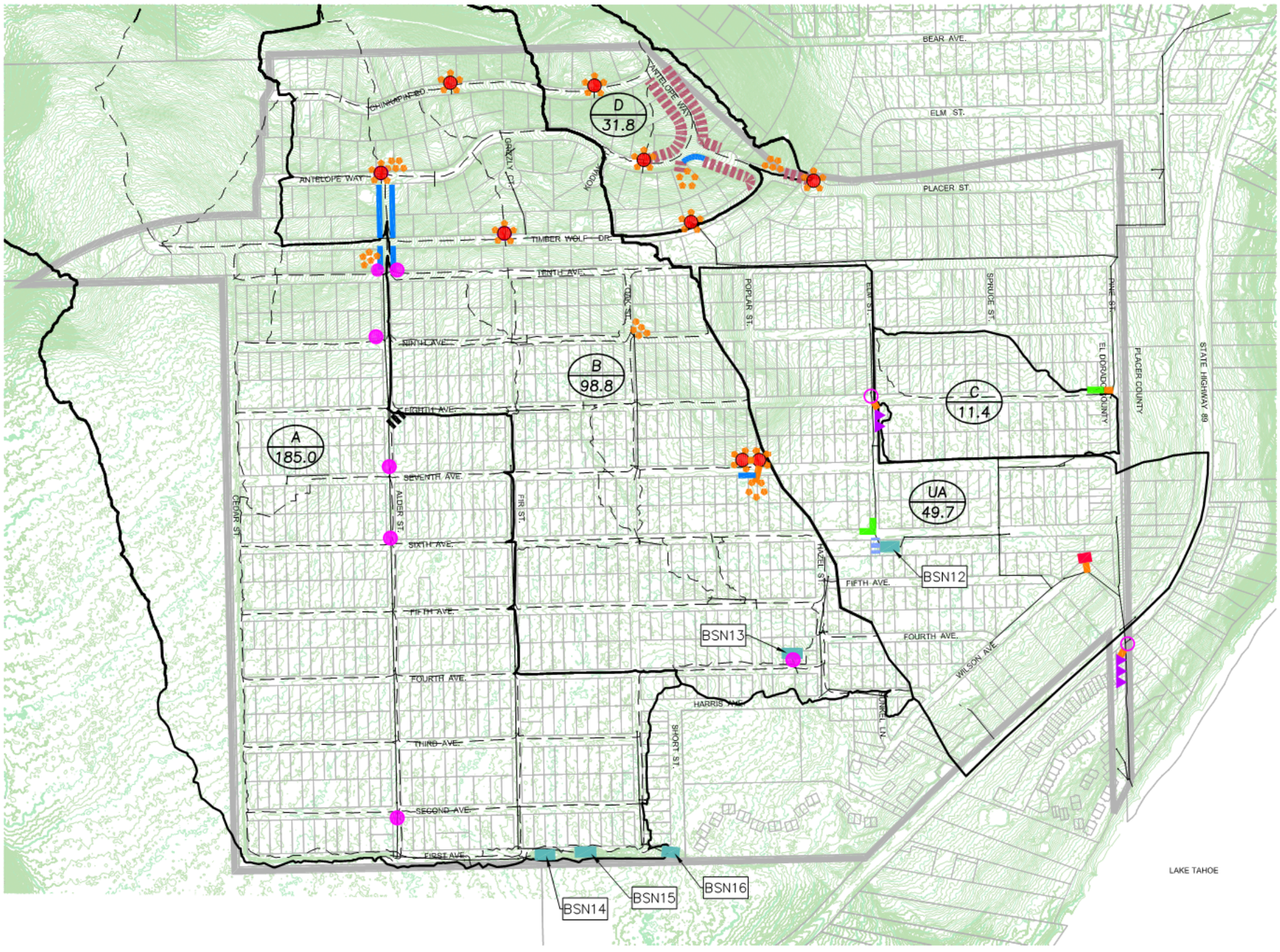
COUNTY OF EL DORADO
COMMUNITY DEVELOPMENT AGENCY
TRANSPORTATION DIVISION

CSA 5
EROSION CONTROL PROJECT

PROBLEM AREA MAP

FIGURE 15

DATE: 12/2015 | PROJECT NO.: 95157 | BY: ALD



LEGEND

- D 31.8 — WATERSHED ID WITH AREA IN ACRES
- WATERSHED BOUNDARY
- SUB-WATERSHED BOUNDARY
- EXISTING PIPE
- BSN16 — EXISTING BASIN ID
- CONTOUR
- PROJECT BOUNDARY
- COUNTY ROW, CALTRANS ROW, OR PROPERTY LINES
- PROPOSED CMP I
- PROPOSED R&R CMP I OR CMP R
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED DRAINAGE INLET
- PROPOSED PIPE
- PROPOSED AC DIKE OR SWALE
- PROPOSED STABILIZE/RESTORE DITCH
- PROPOSED REVEGETATION AND BLANKET
- PROPOSED ARMORED CHANNEL
- PROPOSED AC PAVEMENT
- PROPOSED ACCESS
- PROPOSED ROCK SLOPE PROTECTION
- PROPOSED ROCK DISSIPATOR OR BOWL
- PROPOSED INFILTRATION SYSTEM
- CMP I OR CMP R — CORRUGATED METAL PIPE INLET OR RISER

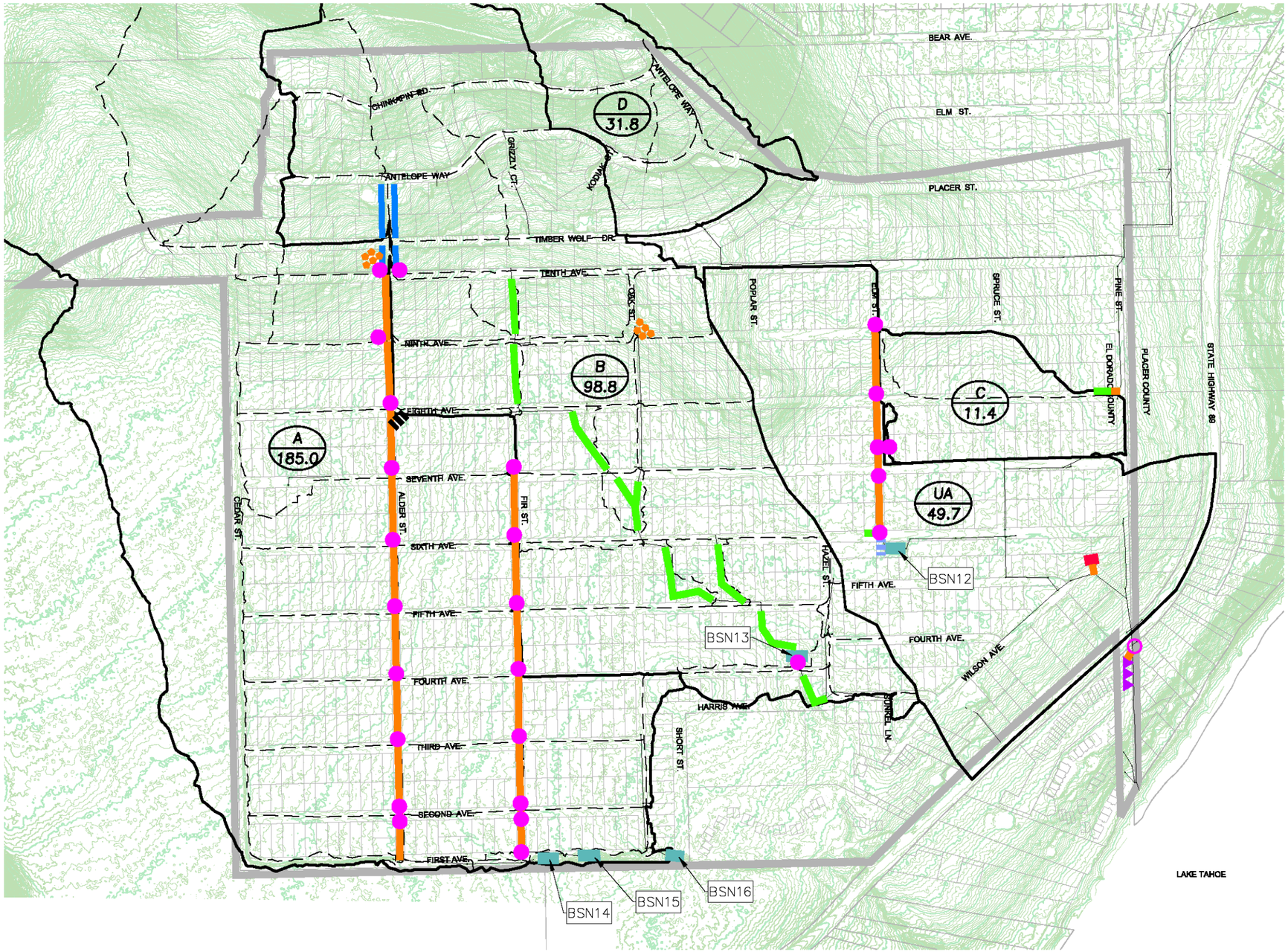
0 250' 500'
SCALE

COUNTY OF EL DORADO
COMMUNITY DEVELOPMENT AGENCY
TRANSPORTATION DIVISION

CSA 5
EROSION CONTROL PROJECT
ALTERNATIVE 1

DATE: 12/2015 | PROJECT NO.: 95157 | BY: ALD

FIGURE
16



LEGEND

- D / 31.8 — WATERSHED ID WITH AREA IN ACRES
- WATERSHED BOUNDARY
- SUB-WATERSHED BOUNDARY
- EXISTING PIPE
- BSN16 — EXISTING BASIN ID
- CONTOUR
- PROJECT BOUNDARY
- COUNTY ROW, CALTRANS ROW, OR PROPERTY LINES
- PROPOSED R&R CMP I OR CMP R
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED DRAINAGE INLET
- PROPOSED PIPE
- PROPOSED AC DIKE
- PROPOSED STABILIZE/RESTORE DITCH
- PROPOSED REVEGETATION AND BLANKET
- PROPOSED AC PAVEMENT
- PROPOSED ACCESS
- PROPOSED ROCK SLOPE PROTECTION
- PROPOSED INFILTRATION SYSTEM
- CMP I OR CMP R — CORRUGATED METAL PIPE INLET OR RISER

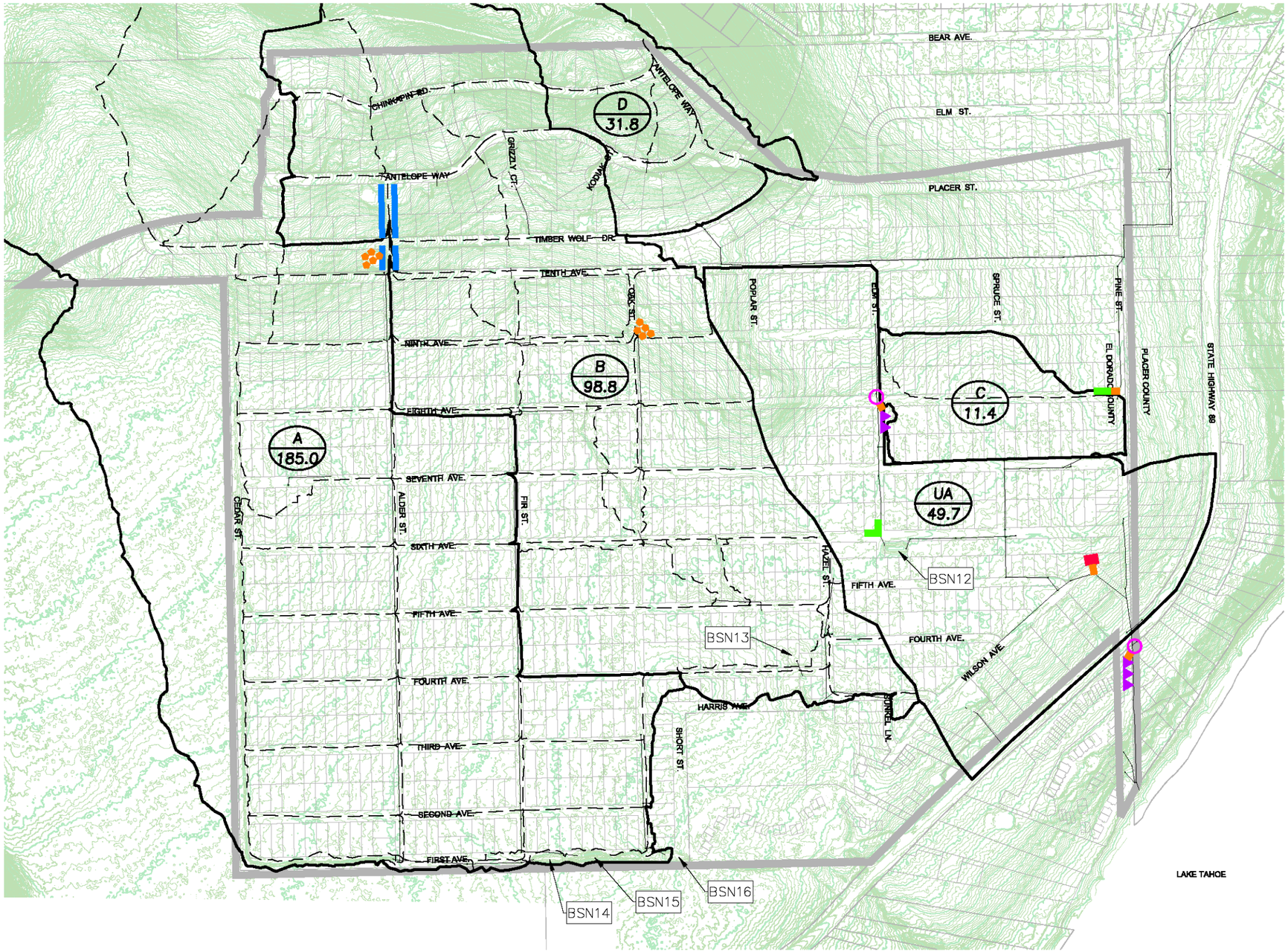
0 250' 500'
SCALE

COUNTY OF EL DORADO
COMMUNITY DEVELOPMENT AGENCY
TRANSPORTATION DIVISION

CSA 5
EROSION CONTROL PROJECT
ALTERNATIVE 2

DATE: 12/2015 | PROJECT NO.: 95157 | BY: ALD

FIGURE
17



LEGEND

- D 31.8 — WATERSHED ID WITH AREA IN ACRES
- WATERSHED BOUNDARY
- SUB-WATERSHED BOUNDARY
- EXISTING PIPE
- BSN16 — EXISTING BASIN ID
- CONTOUR
- PROJECT BOUNDARY
- COUNTY ROW, CALTRANS ROW, OR PROPERTY LINES
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED DRAINAGE INLET
- PROPOSED PIPE
- PROPOSED AC DIKE
- PROPOSED STABILIZE/RESTORE DITCH
- PROPOSED ROCK SLOPE PROTECTION
- PROPOSED INFILTRATION SYSTEM

0 250' 500'
SCALE

COUNTY OF EL DORADO
COMMUNITY DEVELOPMENT AGENCY
TRANSPORTATION DIVISION

CSA 5
EROSION CONTROL PROJECT

ALTERNATIVE 3

DATE:	PROJECT NO.:	BY:
12/2015	95157	ALD

FIGURE 18

APPENDIX A:
CEQA CHECKLIST

COMMUNITY DEVELOPMENT AGENCY

TRANSPORTATION DIVISION

http://www.edcgov.us/DOT/

PLACERVILLE OFFICES:
MAIN OFFICE:
2850 Fairlane Court, Placerville, CA 95667
(530) 621-5900 / (530) 626-0387 Fax

MAINTENANCE:
2441 Headington Road, Placerville, CA 95667
(530) 642-4909 / (530) 642-0508 Fax

LAKE TAHOE OFFICES:
ENGINEERING:
924 B Emerald Bay Road, South Lake Tahoe, CA 96150
(530) 573-7900 / (530) 541-7049 Fax

MAINTENANCE:
1121 Shakori Drive, South Lake Tahoe, CA 96150
(530) 573-3180 / (530) 577-8402 Fax

CEQA Checklist

Title: CSA 5 Erosion Control Project (JN 95157)	
Description: Construction of erosion control and water quality improvement facilities	
Location: The Project area is located in eastern El Dorado County, within the Lake Tahoe Basin, in Tahoma near the west shore of Lake Tahoe. The Project is bounded by Lake Tahoe and First Avenue to the east, the El Dorado/Placer County line to the north, Chinkapin Road and Placer Street to the west and Cedar Street to the south.	
Owner/Applicant: County of El Dorado, Community Development Agency, Transportation Division , Tahoe Engineering	
Lead Agency: County of El Dorado, Community Development Agency, Transportation Division, Tahoe Engineering	
County Contact: Daniel Kikkert, Senior Civil Engineer	**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:

1. 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).
2. 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.
3. 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.
4. 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 "Earlier Analysis," as described in 5) below, may be cross-referenced).
5. 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.

6. 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.
7. Supporting Information Sources: A source list should be attached. Individuals who were contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
    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-A Discussion: A limited part of the Project area is visible from State Route 89, which is a designated Scenic Highway. The intent of the Project is to improve the quality of the area by stabilizing bare soil areas with native vegetation, by enhancing drainage features and by 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 proposed Project has a less than significant impact.

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

Item I-C Discussion: The 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 of El Dorado (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 proposed 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 only remove a small number of trees which will not degrade the surrounding forest land due to the significant number of trees within the Project area. 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 proposed 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 proposed 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 proposed 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 proposed 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 (BA)* was performed for the proposed Project. A Biological Evaluation (BE), which evaluates Forest Service Regional 5 Sensitive Species, is required if improvements are proposed on United States Forest Service (USFS) land. Since no USFS land is being used a BE was not required for this project. The biological assessment surveys observed no federal or state-listed candidate, or proposed wildlife species in the Project study area. However, there are recorded occurrences of special status species immediately adjacent to the Project area. Suitable habitat conditions do exist within 0.5 miles of the Project area for bald eagle, northern goshawk, osprey, California spotted owl, waterfowl, Sierra Nevada mountain beaver, American badger, Sierra Nevada snowshoe hare, fisher (West Coast distinct population segment), Sierra Nevada red fox, America marten, and mule deer. 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 (BA)* was also performed for the proposed Project. A Biological Evaluation (BE), which evaluates Forest Service Regional 5 Sensitive Species, is required if improvements are proposed on USFS land. Since no USFS land is being used a BE was not required for this project. The biological assessment surveys observed a federal/state-listed candidate botanical species within the Project study area (Tahoe yellow cress). This plant is documented by the CNDDB as occurring along the Lake Tahoe Shoreline near the outlet of the Pine Street drainage system. Because this plant is obligate to a specific zone along sandy beaches/shorelines, and no improvements are proposed in this area, it is highly unlikely the Project will impact the plant. In addition to Tahoe yellow cress, there are recorded occurrences of two special status species

immediately adjacent to the Project area within a 0.5 mile buffer. Suitable habitat conditions do exist within 0.5 miles of the Project area for Stebbins phacelia and a fen area.

A *Noxious Weed Risk Assessment (NWRA)* was performed for the proposed Project. The surveys indicated that a noxious weed species was known to exist within the Project area. This species includes oxeye daisy (*Leucanthemum vulgare*). The locations of the noxious weeds 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 proposed Project will have a less than significant impact.

Item IV-A Mitigation Measures:

Mitigation Measure B-1: Prior to construction, TE will confirm if any new special status species have been identified by the USFS – Lake Tahoe Basin Management Unit (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: TE 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: TE used the US Forest Service and TRPA developed Bailey Land Capability Classification System to map soil types, including sensitive Class1B (stream environment zone (SEZ)) lands, within the project area. A Land Capability Verification Application, with delineated sensitive Class 1B SEZ lands within the Project area, will be submitted to TRPA for certification. 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 Project Development Team (PDT), some improvements will potentially encroach into SEZs. These areas fall into two categories: 1) previously disturbed road shoulders and 2) existing infiltration basins that are in need of rehabilitation. Additionally, fieldwork has been completed to delineate Waters of the United States (WOUS), including wetlands. As a result of the fieldwork, no wetlands were identified within the proposed areas of improvements in the Project area.

With the implementation of 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 proposed Project will have a less than significant impact.

Item IV-B Mitigation Measures:

Mitigation Measure B-4: 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 RWQCB shall be notified immediately to determine the appropriate course of action. The Storm Water Pollution Prevention Plan (SWPPP) for the proposed Project will include a Dewatering Contingency Plan (Item VI-B Mitigation Measures) that the contractor shall follow.

Mitigation Measure B-5: The proposed Project was designed around the findings of the wetland delineation report to avoid or minimize impacts to wetlands and/or other WOUS. No wetlands were found, but jurisdictional WOUS were found within the Project area. Pending the final design and limits of work within identified jurisdictional

areas, TE will obtain 404 and 401 Water Quality Certification from the U.S. Army Corps of Engineers (ACOE) and Lahontan RWQCB, respectively. In addition, TE will obtain a TRPA EIP Project Permit and will implement the required mitigation measures.

Item IV-C Discussion: A Land Capability Verification, with delineated sensitive Class 1B (stream environment zone (SEZ)) lands within the Project area will be 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 potentially encroach into SEZs.

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 proposed 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. In addition, consultation with the Washoe Tribe of Nevada and California was initiated for this project. Fifteen previous cultural resources studies have been conducted in the vicinity of the Project area, 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 storm water 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 proposed Project will have a less than significant impact.

Item VI-B Mitigation Measures:

Mitigation Measure G-1: The contractor will adhere to a SWPPP submitted to the TE, Lahontan RWQCB, and TRPA prior to construction. The SWPPP shall be in accordance with TRPA and Lahontan RWQCB 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 construction access gravel. Prior to construction, all storage, access, and staging areas shall be secured by the contractor and approved by TE, Lahontan RWQCB, 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 TE, Lahontan RWQCB, 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 TE, Lahontan RWQCB, 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 RWCQB, and TE 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.

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: TE shall conduct daily inspections of BMPs to ensure they are properly placed and maintained for maximum water quality benefit. As part of this process, TE 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 TE'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. TE 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, TE has formulated the following assumptions:

- Fifteen workers per day, driving five vehicles to work an average of 40 miles round-trip 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 43 metric tons of CO_2 equivalents.

This estimated amount is negligible in comparison to the statewide inventory of 460,000,000 metric tons discussed above (0.00000010 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 proposed 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 wild land fires, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands?	☐	☐	☐	☒

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 proposed 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 proposed 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 storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☒	☐	☐

f)	Otherwise substantially degrade water quality?	☐	☒	☐	☐
g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h)	Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	☐	☐	☐	☒
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j)	Inundation 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 storm water 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 storm water 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 storm water 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 storm water drainage systems or provide substantial additional sources of polluted runoff; therefore, the proposed 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 proposed 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 majority of the Project lies within PAS 154, which has a land use classification of "Residential", with a maximum density of one single family dwelling per parcel. A smaller portion of the Project lies within PAS 155, which is classified as "Tahoma Commercial", which also has 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 TE 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 proposed 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. TE will advise potentially affected residents of the proposed construction activities including duration, schedule of activities, and contacts for filing noise complaints. TE 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 proposed 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 proposed 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 proposed 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 TE 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, TE 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 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 storm water 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 storm water deficiencies, erosion, and water quality problems. The proposed Project will require or result in the construction of new storm water 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 proposed 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

Daniel Kikkert, Senior Civil Engineer, El Dorado County

Contributors

Nichols Consulting Engineers, Inc.

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 19 February, 2016

Daniel Kikkert, County of El Dorado

APPENDIX B:
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION MONITORING AND REPORTING PROGRAM

PROJECT NAME: CSA 5 EROSION CONTROL PROJECT

MITIGATED NEGATIVE DECLARATION #: ***TBD***

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 CSA 5 Erosion Control Project (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 Code.

PROGRAM IMPLEMENTATION

The MMRP Checklist (Table B-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 B-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. 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.

TABLE B-1. MITIGATION MONITORING AND REPORTING PROGRAM FOR THE CSA 5 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.	TE or its Contractor	TE	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.	TE or its Contractor	TE	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.	TE or its Contractor	TE	Prior to and During Construction	
Mitigation Measure AQ-4: On-site vehicle speed shall be limited to 15 miles per hour on unpaved surfaces.	TE or its Contractor	TE	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.	TE or its Contractor	TE	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.	TE or its Contractor	TE	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.	TE or its Contractor	TE	Prior to and During Construction	
BIOLOGICAL RESOURCES- Item IV-A				
Mitigation Measure B-1: Prior to construction, TE will confirm if any new special status species have been identified by the United States Forest Service – Lake Tahoe Basin Management Unit (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.	TE or its Consultant	TE	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.	TE or its Consultant	TE	Prior to Construction	
Mitigation Measure B-3: TE 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.	TE or its Consultant	TE	Prior to Construction	

MITIGATION MEASURE	IMPLEMENTING RESPONSIBILITY[1,3]	MONITORING RESPONSIBILITY[2,3]	TIMING AND FREQUENCY	VERIFICATION OF COMPLIANCE (INITIALS/DATE)
BIOLOGICAL RESOURCES - ITEM IV-B				
Mitigation Measure B-4: 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 (RWQCB) shall be notified immediately to determine the appropriate course of action. The Storm Water Pollution Prevention Plan (SWPPP) for the proposed Project will include a Dewatering Contingency Plan (Item VI-B Mitigation Measures) that the contractor shall follow.	TE or its Consultant	TE	Prior to and During Construction	
Mitigation Measure B-5: The proposed Project was designed around the findings of the wetland delineation report to avoid or minimize impacts to wetlands and/or other Waters of the United States (WOUS). No wetlands were found, but jurisdictional WOUS were found within the Project area. Pending the final design and limits of work within identified jurisdictional areas, TE will obtain 404 and 401 Water Quality Certification from the ACOE and Lahontan RWQCB, respectively. In addition, TE will obtain a TRPA EIP Project Permit and will implement the required mitigation measures.	TE or its Consultant	TE	Prior to and During 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 will adhere to a Storm Water Pollution Prevention Plan (SWPPP) submitted to TE, Lahontan RWQCB, and TRPA prior to construction. The SWPPP shall be in accordance with the TRPA and Lahontan RWCQB 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 TE, Lahontan RWCQB 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 TE, Lahontan RWQCB 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.	TE and its Contractor	TE	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 TE, Lahontan RWQCB 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 RWQCB and TE 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.	TE and its Contractor	TE	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.	TE and its Contractor	TE	Prior to and During Construction	
Mitigation Measure G-3: TE 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, TE 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.	TE and its Contractor	TE	Prior to and During Construction	
GREENHOUSE GAS EMISSIONS - Item VII-A				
Mitigation Measure: Implement Mitigation Measures identified under Item III-B Mitigation Measures.	TE or its Contractor	TE	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.	TE or its Contractor	TE	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.	TE or its Contractor	TE	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.	TE or its Contractor	TE	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. TE will advise potentially affected residents of the proposed construction activities including duration, schedule of activities, and contacts for filing noise complaints. TE staff and/or contractor shall respond to all noise complaints received within one working day and resolve the issue within two working days.	TE or its Contractor	TE	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 TE 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, TE 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.	TE	TE	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.	TE or its Contractor	TE	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: TE : El Dorado County, Community Development Agency, Transportation Division, Tahoe Engineering

APPENDIX C:
PLANT, NOXIOUS WEED, AND WILDLIFE TABLES

Table C-1.1. CSA 5 Erosion Control Project - Special Status Plant Species List and Habitat Analysis

Table 1. Special Status Species List and Habitat.							
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		FSS	SI	1B.2	Open, rocky areas along forest edges of conifer and/or aspen stands; usually found on north aspects; 7,500 ft. & above.	August	**Unlikely.** Outside of elevation range and site lacks suitable habitat.
Arabis tiehmii Tiehm's rockcress		FSS		1B.3	Open rocky soils in the Mt. Rose Wilderness; 10,000 ft. & above.	July to August	**Unlikely.** Outside of elevation range and site lacks suitable habitat.
Astragalus austiniae Austin's milkvetch		WL		1B.3	Rocky ridges and slopes of high peaks above 8,000 ft. in the Tahoe area (Castle Peak to Carson Pass).	July to September	**Unlikely.** Outside of elevation range and site lacks suitable habitat.
Boechera rectissima *(= Arabis rectissima var. simulans)* bristlyleaf rock cress		WL			Dry, sandy, granitic or andesitic soil on mostly gentile slopes of all aspects, in full or filtered sunlight of thinly-littered openings in mature, open Jeffrey pine and white fir; 6,000-7,400 ft.	June to July	**Potential.** May occur. Not encountered.
Boechera tularensis Tulare rockcress		FSS		1B.3	Shaded, mostly east-facing subalpine rocky areas, including rocky slopes, rock-lined streams and seeps, rocky outcrops, saddles, and canyons; 6,000-11,000 ft.	June to July	**Unlikely.** Not known to occur and only known in text records.
Bolandra californica Sierra bolandra				4.3	Perennial herb that grows in mesic rocky habitat. It prefers lower and upper montane coniferous forest. Elevation range is from 3,200 to 8,000 feet.	June to July	**Potential.** May occur. Not encountered.
Botrychium ascendens upswept moonwort		FSS		2B.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		FSS		2B.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		FSS		1B.1	Wet or moist soils in upper montane coniferous forests, such as along the edges of	Fronds mature	**Potential.** May occur. Not

Table C-1.1. CSA 5 Erosion Control Project - Special Status Plant Species List and Habitat Analysis

Table 1. Special Status Species List and Habitat.							
Species	**Regulatory Status**				**Habitat Requirements**	**Identification Period**	**Potential for Occurrence in the Project Area and Results of Survey**
	Federal	**LTBMU**	**TRPA**	**CNPS /CA**			
slender moonwort					lakes and streams. Elevation range from sea level to 10,640 feet.	June to September	encountered.
Botrychium lunaria common moonwort		FSS		2B.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		FSS		2B.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		FSS		2B.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.
Brasenia schreberi watershield				2B.3	Perennial rhizomatous herb that prefers marshes and swamps or freshwater. Elevation range 100 to 7,200 feet.	June to September	**Potential.** May occur. Not encountered.
Bruchia bolanderi Bolander's bruchia		FSS		4.2	Mainly in montane meadows and stream banks, but also on bare, slightly eroding soil where competition is minimal.	Moss	**Potential.** May occur. Not encountered.
Carex davyi Davy's sedge		WL		1B.3	Perennial herb that prefers subalpine and upper montane coniferous forests between 5,000 to 10,500 feet.	May to August	**Potential.** May occur. Not encountered.
Carex lasiocarpa wooly-fruited sedge				2B.3	Perennial rhizomatous herb that can be found in bogs, fens, marshes, swamps in freshwater and along lake margins between 5,900 and 6,800 feet.	June to July	**Potential.** May occur. Not encountered.
Carex limosa mud sedge				2B.2	Perennial rhizomatous herb that prefers bogs, fens, meadows, seeps, marshes, swamps, and both lower and upper montane coniferous forests. Elevation range is between 3,900 and 8,900 feet.	June to August	**Unlikely.** Lack of suitable habitat.
Chaenactis douglasii var. alpina alpine dusty maidens		WL		2B.3	Alpine boulder and rock field (granitic) above 9,000 ft.	July to September	**Unlikely.** Outside of elevation range and site lacks suitable habitat.

Table C-1.1. CSA 5 Erosion Control Project - Special Status Plant Species List and Habitat Analysis

Table 1. Special Status Species List and Habitat.							
Species	**Regulatory Status**				**Habitat Requirements**	**Identification Period**	**Potential for Occurrence in the Project Area and Results of Survey**
	Federal	**LTBMU**	**TRPA**	**CNPS /CA**			
Claytonia megarhiza fell fields claytonia		WL		2B.3	Alpine boulder and rock field (granitic) above 8,500 ft.	July to September	**Unlikely.** Outside of elevation range and site lacks suitable habitat.
Cryptantha crymophila subalpine cryptantha		WL		1B.3	Subalpine coniferous forest (volcanic, rocky) above 8,500 ft.	July to August	**Unlikely.** Outside of elevation range and site lacks suitable habitat.
Dendrocollybia racemosa branched collybia		FSS			Grows on decayed, blackened mushrooms or coniferous duff, usually within old growth stands.	Fall and Winter	**Unlikely.** Site lacks suitable habitat. Not known to occur and only known in text records.
Draba asterophora* var. *asterophora Tahoe draba		FSS	SI	1B.2	Rock crevices and open granite talus slopes on north-east slopes; 8,000-10,200 ft.	July to September	**Unlikely.** Outside of elevation range.
Draba asterophora* var. *macrocarpa cup Lake draba		FSS	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 and site lacks suitable habitat.
Draba cruciata Mineral King draba		FSS		1B.1	Subalpine gravelly or rocky slopes, ridges, crevices, cliff ledges, sink holes, boulder and small drainage edges; 7,800-13,000 ft.	July to September	**Unlikely.** Site lacks suitable habitat. Not known to occur and only known in text records.
Epilobium howellii subalpine fireweed		FSS		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 and site lacks suitable habitat.
Epilobium oregonum Oregon fireweed				1B.2	Perennial herb that prefers mesic habitat including bogs and fens, but also lower and upper montane coniferous forests. Elevation is between 1,650 and 7,300 feet.	June to September	**Potential.** May occur. Not encountered.
Epilobium palustre marsh willowherb		WL		2B.3	Perennial rhizomatous herb that prefers mesic habitat including bogs, fens, meadows, and seeps.	July to August	**Unlikely.** Site lacks undisturbed suitable habitat.
Erigeron miser starved daisy		FSS		1B.3	Granitic rock outcrops; 6,000 ft. and above.	June to October	**Unlikely.** Site lacks suitable habitat.

Table C-1.1. CSA 5 Erosion Control Project - Special Status Plant Species List and Habitat Analysis

Table 1. Special Status Species List and Habitat.							
Species	**Regulatory Status**				**Habitat Requirements**	**Identification Period**	**Potential for Occurrence in the Project Area and Results of Survey**
	Federal	**LTBMU**	**TRPA**	**CNPS /CA**			
Eriogonum luteolum var. saltuarium goldencarpet buckwheat		FSS		1B.2	Sandy granitic flats and slopes, sagebrush communities, montane conifer woodlands; 5,600-7,400 ft.	July to September	**Unlikely.** Site lacks suitable habitat.
Eriogonum umbellatum* var. *torreyanum Torrey's buckwheat		FSS		1B.2	Dry gravelly or stony sites; often on harsh exposures (e.g. ridge tops, steep slopes).	July to September	**Unlikely.** Site lacks suitable habitat.
Glyceria grandis American manna grass				2.3	Perennial rhizomatous herb that prefers bogs, fens, meadows, seeps, marshes, and swamps along stream banks, or lake margins. Elevation range is from 50 to 6,500 feet.	June to August	**Potential.** May occur. Not encountered.
Helodium blandowii Blandow's bog-moss		FSS		2B.3	Bogs and fens that are not too rich in iron. Elevation range 6,562 to 8,859 feet.	Moss	**Unlikely.** Site lacks suitable habitat.
Hulsea brevifolia short-leaved hulsea		FSS		1B.2	Red fir forest, but also in mixed conifer forests; found on gravelly soils; 4,900-8,900 ft.	May to August	**Potential.** May occur. Not encountered.
Ivesia sericoleuca Plumas ivesia		FSS		1B.2	Vernally wet portions of meadows and alkali flats, vernal pools within sagebrush scrub or lower montane coniferous forest; often on volcanic soils; 4,300-7,200 ft.	May to October	**Unlikely.** Site lacks suitable habitat.
Lewisia kelloggii* ssp. *hutchisonii Hutchison's lewisia		FSS		3.2	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 suitable habitat.
Lewisia kelloggii* ssp. *kelloggii Kellogg's lewisia		FSS		3.2	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 suitable habitat.
Lewisia longipetala long-petaled lewisia		FSS	SI	1B.3	North-facing slopes and ridge tops where snow banks persist throughout the summer; often found near snow bank margins in wet	June to August	**Unlikely.** Outside of elevation range.

Table C-1.1. CSA 5 Erosion Control Project - Special Status Plant Species List and Habitat Analysis

Table 1. Special Status Species List and Habitat.							
Species	**Regulatory Status**				**Habitat Requirements**	**Identification Period**	**Potential for Occurrence in the Project Area and Results of Survey**
	Federal	**LTBMU**	**TRPA**	**CNPS /CA**			
					soils; 8,000-12,500 ft.		
Meesia longiseta Meesia moss		WL		2B.3	Bogs and fens, meadows and seeps in montane coniferous forests. Elevation range 4,290 to 8,250 feet.	Moss	**Unlikely.** Site lacks suitable habitat.
Meesia triquetra three-ranked hump-moss				4.2	Bogs and fens, meadows and seeps in montane coniferous forests. Elevation range 4,290 to 8,250 feet.	Moss	**Unlikely.** Site lacks suitable habitat.
Meesia uliginosa broad-nerved hump-moss		FSS		2B.2	Bogs and fens, meadows and seeps in montane coniferous forests. Elevation range 4,290 to 8,250 feet.	Moss	**Unlikely.** Site lacks suitable habitat.
Myurella julacea small mousetail moss		WL		2B.3	Seep like granitic rock walls; on soil over rocks or in crevices in alpine boulder and rock fields; subalpine coniferous forest on damp soil over rocks; 8,800-9,900 ft.	Moss	**Unlikely.** Site lacks undisturbed suitable habitat.
Orthotrichum holzingeri Holzinger's orthotrichum moss		WL		1B.3	Seasonally wet rocks in small streams of dry montane forests; 3,000-6,500ft.	Moss	**Potential.** May occur. Not encountered.
Orthotrichum praemorsum orthotrichum moss		FSS			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				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		WL		1B.3	Volcanic rock walls; continually misted, shaded granitic rock faces at high elevations near Sonora Pass.	Moss	**Unlikely.** Site lacks suitable habitat.
Peltigera hydrothyria veined water lichen		FSS			Cold unpolluted streams in mixed conifer forests.	Lichen	**Potential.** May occur. Not encountered.
Phacelia stebbinsii Stebbins' phacelia				1B.2	Cismontane woodland, lower montane coniferous forest, meadows and seeps.	May-July	**Potential.** May occur and historical occurrences exist in Project buffer

Table C-1.1. CSA 5 Erosion Control Project - Special Status Plant Species List and Habitat Analysis

Table 1. Special Status Species List and Habitat.							
Species	**Regulatory Status**				**Habitat Requirements**	**Identification Period**	**Potential for Occurrence in the Project Area and Results of Survey**
	Federal	**LTBMU**	**TRPA**	**CNPS /CA**			
							zone. Not encountered.
Pinus albicaulis whitebark pine	FC	FSS			Subalpine and at timberline on rocky, well-drained granitic or volcanic soils.		**Unlikely.** Site lacks suitable habitat.
Pohlia tundrae tundra thread moss		WL		2B.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; known in text records only.
Polystichum lonchitis northern holly fern				3	This perennial rhizomatous herb prefers granitic or carbonate soils in subalpine or upper montane coniferous forests. Elevation range is from 5,900 to 8,500 feet.	June to September	**Potential.** May occur. Not encountered.
Rorippa subumbellata Tahoe yellow cress	FC	FSS	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	**Potential.** May occur and historical occurrences exist in Project buffer zone. Not encountered.
Schoenoplectus subterminalis water bulrush				2B.3	Perennial rhizomatous herb that prefers bogs, fens, marshes and swamps, especially along montane lake margins. Elevation range from 2,400 to 7,300 feet.	June to August	**Unlikely.** Site lacks suitable habitat.
Scutellaria galericulata marsh skullcap				2B.2	Perennial rhizomatous herb that prefers lower montane coniferous forests, meadows, seeps, marshes, and swamps. Elevation range from 0 to 6,800 feet.	June to September	**Unlikely.** Site lacks suitable habitat.
Stuckenia filiformis slender-leaved pondweed				2B.2	Perennial rhizomatous herb that prefers marshes, swamps, and a variety of shallow freshwater habitats. Elevation range from 980 to 7,000 feet.	May to July	**Unlikely.** Site lacks suitable habitat.
***Sphagnum* species** sphagnum moss		WL			Usually in fens and bogs, sometimes in very wet, non-acidic habitats that remains saturated.	Moss	**Unlikely.** Site lacks suitable habitat.
Tomentypnum nitens tomentypnum moss		WL			Forming lawns and hummocks in calcareous, mesotrophic fens in association with other calciphiles, usually found with hypnaceous moss, such as Paludella squarrosa and Aulacomnium spp.	Moss	**Unlikely.** Site lacks suitable habitat.

Table C-1.1. CSA 5 Erosion Control Project - Special Status Plant Species List and Habitat Analysis

Table 1. Special Status Species List and Habitat.							
Species	**Regulatory Status**				**Habitat Requirements**	**Identification Period**	**Potential for Occurrence in the Project Area and Results of Survey**
	Federal	**LTBMU**	**TRPA**	**CNPS /CA**			
Utricularia ochroleuca cream-flowered bladderwort				2B.2	Perennial stoloniferous herb that can be found in meadows, seeps, marshes, swamps, and lake margins. Elevation range from 4,700 to 4,730 feet.	June to July	**Potential.** May occur. Not encountered.

FE = Federally Endangered
FT = Federally Threatened
FD = Federally Delisted
FPD = Federal Proposed for Delisting
PT = Federal Proposed Threatened
FC = Federal Candidate for listing
FSS = Forest Service Sensitive (Regional Forester's Sensitive Species List, Region 5)
WL = LTBMU Species Watch List -survey for but exclude from Biological Evaluation
SI = TRPA Special Interest Species
SE = State Endangered
ST = State Threatened
SR = State Rare
SC = State Candidate

California Native Plant Society (CNPS) List Categories:
1 = Rare in California and Elsewhere
2 = Rare in California, but not elsewhere
3 = Plants about which we need more information
4 = Plants of limited distribution

A = Presumed extirpated or extinct
B = Rare, threatened, or endangered

CNPS Threat Code Extensions:
0.1 = Seriously endangered in California (Over 80% of occurrences threatened)
0.2 = Fairly endangered in California (20-80% occurrences threatened)
0.3 = Not very endangered in California (<20% of occurrences threatened)

Table C-1.2. CSA 5 Erosion Control Project - Noxious and Invasive Species in Project Area

Table 1. Noxious and Invasive Species in the Project Area.							
Common Name	**Scientific Name**	**LTBWCG**	**CDFA**	**NDA**	**Cal-IPC**	**Species Present? Y or N**	**If Present, Gross Area of the Infestation**
Tree of heaven	*Ailanthus altissima*	Group 1b	C		Moderate	N	
Cheatgrass	*Bromus tectorum*				High	N	
Hoary cress	*Cardaria draba*	Group 1b	B	C	Moderate	N	
Globe-prodded hoary cress	*Cardaria pubescens*	Group 1b	B		Limited	N	
Plumeless thistle	*Carduus acanthoides*		A		Limited	N	
Musk thistle	*Carduus nutans*	Group 1a	A	B	Moderate	N	
Purple starthistle	*Centaurea calcitrapa*	Group 1a	B	A	Moderate	N	
Diffuse knapweed	*Centaurea diffusa*	Group 1b	A	B	Moderate	N	
Spotted knapweed	*Centaurea maculosa*	Group 2	A	A	High	N	
Russian knapweed	*Centaurea repens*	Group 1b	B	B	Moderate	N	
Yellow starthistle	*Centaurea solstitialis*	Group 1b	C	A	High	N	
Squarrose knapweed	*Centaurea squarrosa*		A	A	Moderate	N	
Rush skeletonweed	*Chondrilla juncea*	Group 1b	A	A	Moderate	N	
Oxeye daisy	*Chrysanthemum leucanthemum*	Group 2			Moderate	Y	113 sf
Canada thistle	*Cirsium arvense*	Group 1b	B	C	Moderate	N	
Bull thistle	*Cirsium vulgare*	Group 2	C		Moderate	N	
Poison hemlock	*Conium maculatum*			C	Moderate	N	
Field bindweed	*Convolvulus arvensis*		C			N	
Bearded creeper	*Crupina vulgaris*		A	A	Limited	N	
Scotchbroom	*Cytisus scoparius*	Group 2	C		High	N	
Teasel	*Dipsacus fullonum*	Group 1b			Moderate	N	
Stinkwort	*Dittrichia graveolens*	Group 1a			Moderate	N	
Quackgrass	*Elytrigia repense*		B			N	
French broom	*Genista monspessulana*		C		High	N	
St. John's wort / Klamath weed	*Hypericum perforatum*	Group 2	C	A	Moderate	N	
Dyer's woad	*Isatis tinctoria*	Group 1a	B	A	Moderate	N	
Tall whitetop / Perennial pepperweed	*Lepidium latifolium*	Group 2	B	C	High	N	
Dalmatian toadflax	*Linaria genistifolia* spp. *dalmatica*	Group 2	A	A	Moderate	N	

Table C-1.2. CSA 5 Erosion Control Project - Noxious and Invasive Species in Project Area

Table 1. Noxious and Invasive Species in the Project Area.							
Common Name	**Scientific Name**	**LTBWCG**	**CDFA**	**NDA**	**Cal-IPC**	**Species Present? Y or N**	**If Present, Gross Area of the Infestation**
Yellow toadflax	*Linaria vulgaris*	Group 2		A	Moderate	N	
Purple loosestrife	*Lythrum salicaria*	Group 1b	B	A	High	N	
Eurasian watermilfoil	*Myriophyllum spicatum*	Group 2		A	High	N	
Scotch thistle	*Onopordum acanthium*	Group 1a	A	B	High	N	
Reed canarygrass	*Phalaris arundinacea*	Group 1a				N	
Sulfur cinquefoil	*Potentilla recta*	Group 1b	A	A		N	
Russian thistle	*Salsola tragus*		C		Limited	N	
Perennial sowthistle	*Sonchus arvensis*		A	A		N	
Medusa-head	*Taeniatherum caput-medusae*	Group 1a	C	B	High	N	
Tamarisk	*Tamarix chinensis*	Group 1a	B	C	High	N	
Puncture vine	*Tribulus terrestris*		C	C		N	

LTBWGC Ranking:
Group 1 Species:
a) Not currently present in the Lake Tahoe Basin and are documented in areas adjacent to the basin where potential for introduction is high OR
b) Present only as small, eradicable populations.
The letter following each species in Group 1 denotes the infestation type as detailed above. Aggressive treatment will be pursued when these species are found.
Group 2 = Encourage the management/control of populations of these species to prevent further spread in the Lake Tahoe basin. Isolated populations will be targeted for eradication.

NDA: Nevada Department of Agriculture Noxious Weed List (http://agri.nv.gov/nwac/PLANT_NoxWeedList.htm) Category A—Weeds not found or limited in distribution throughout the state; actively excluded from the state and actively eradicated wherever found; actively eradicated from nursery stock dealer premises; control required by the state in all infestations. Category B—Weeds established in scattered populations in some counties of the state; actively excluded where possible, actively eradicated from nursery stock dealer premises; control required by the state in areas where populations are not well established or previously unknown to occur. Category C—Weeds currently established and generally widespread in many counties of the state; actively eradicated from nursery stock dealer premises; abatement at the discretion of the state quarantine officer.
CDFA: California Department of Food and Agriculture Noxious Weed List (http://www.cdfa.ca.gov/phpps/ipc/). A--Eradication or containment is required at the state or county level. B—Eradication or containment is at the discretion of the County Agricultural Commissioner. C--Require eradication or containment only when found in a nursery or at the discretion of the County Agricultural Commissioner.
Cal-IPC: California Invasive Plant Council Online Invasive Plant Inventory (2006) (http://www.cal-ipc.org/ip/inventory/weedlist.php). High—Species having severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Moderate—Species having substantial and apparent—but generally not severe— ecological impacts on physical processes, plant and animal communities, and vegetation structure. Limited—Species that are invasive but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score.

Table 1. Special Status Wildlife Species Considered for the CSA #5 Erosion Control Project

Common Name *Scientific Name*	Federal Status[+]	State Status[+]		Local Status[+]	Occur within 0.5 miles of Project Area	Suitable Habitat within 0.5 miles of Project Area	Potential for Occurrence	Habitat Association (only discussed for species with a suitable habitat)
		CESA	CDFW					
Amphibians								
Sierra Nevada yellow-legged frog[1] *Rana sierrae*	FE	ST	SSC	S	No	No	Not expected to occur. There is Sierra Nevada yellow-legged frog suitable habitat based on the USFWS Biological Opinion within the Project area in the last 40 meter section near Lake Tahoe. It is in the professional opinion of the USFS-LTBMU that this section of Lake Tahoe is not suitable habitat and due to the current infrastructure and high use of Lake Tahoe it is not considered actual suitable habitat. If Project improvements do occur in suitable habitat, a field visit will be required to photograph the existing infrastructure of the area (USDA 2015).	
Northern leopard frog[2] *Lithobates pipiens*			SSC	S	No	No	Not expected to occur. This species is presumed extirpated from the Tahoe Basin (Schlesinger and Romsos 2000). The portion of Lake Tahoe shoreline within the Project area passes through highly developed residential communities that offer little opportunity for breeding. Additionally, improvements are not proposed here.	
Yosemite toad[3] *Anaxyrus canorus*	FT		SSC		No	No	Not expected to occur. Outside of the known range.	

[1] Formerly mountain yellow-legged frog, *Rana muscosa*
[2] Formerly *Rana pipiens*
[3] Formerly *Bufo canorus*

Table C-2.1. Special Status Wildlife Species Considered for the CSA 5 Erosion Control Project

Table 1. Special Status Wildlife Species Considered for the CSA #5 Erosion Control Project								
Common Name *Scientific Name*	Federal Status[+]	State Status[+]		Local Status[+]	Occur within 0.5 miles of Project Area	Suitable Habitat within 0.5 miles of Project Area	Potential for Occurrence	Habitat Association (only discussed for species with a suitable habitat)
		CESA	CDFW					
Birds								
American peregrine falcon *Falco peregrines anatum*	DL (8/99)	SCD	FP	TRPA	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	TRPAS	Yes	Yes	Moderate. No Potential to Impact TRPA Threshold Standard. There is a TRPA Bald Eagle Disturbance Zone outside of the Project area but within 0.5 mile the buffer. No improvements are proposed outside of the Project boundary and the TRPA Disturbance Zone does not overlap with the Project boundary. This species could pass through the Project area, but suitable breeding habitat is not present in the Project survey area.	Bald eagles have an expansive range with breeding areas in Northern California, wintering mostly in the Klamath Basin, and a few favored inland areas of Southern California. Locally, they are yearlong residents and migrants in the Tahoe Basin. Bald eagles use shorelines along large bodies of water and river courses for both nesting and wintering. Snags, broken-topped trees, or rocks near water are required for foraging and nesting. Most nests are located in large trees with open branches within 1 mile of a water body. In Lake Tahoe, known nesting sites include Emerald Bay and Marlette Lake. Wintering sites are located in Taylor, Tallac, Pope, and Upper Truckee Marshes (Romsos 2000)

Table C-2.1. Special Status Wildlife Species Considered for the CSA 5 Erosion Control Project

Table 1. Special Status Wildlife Species Considered for the CSA #5 Erosion Control Project								
Common Name *Scientific Name*	Federal Status[+]	State Status[+]		Local Status[+]	Occur within 0.5 miles of Project Area	Suitable Habitat within 0.5 miles of Project Area	Potential for Occurrence	Habitat Association (only discussed for species with a suitable habitat)
		CESA	CDFW					
California spotted owl *Strix occidentalis occidentalis*			SSC	S	No	Yes	Not expected to occur. Suitable habitat does not exist in the Project area and only marginal habitat exists within 0.5 miles.	California spotted owl are found in Northwest California, the foothills and mid-elevation ranges of the Sierran Nevada, and localized pockets of Southern California. Locally, they are yearlong residents. They can occur in several forest types, but generally choose to breed in forested regions with high canopy cover. Because these owls are cavity dwellers, their reproductive habitat requires snags and decadent trees. Mature forests exhibit optimal habitat because they have complex forest structure, variation in tree size and age, large amounts of course woody debris, and scattered clearings that provide foraging opportunities.
Golden eagle *Aquila chrysaetos*			FP	TRPA	No	No	Not expected to occur. No Potential to Impact TRPA Threshold Standard. The Project area is impacted by human use and suitable habitat is lacking.	
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.	

Table C-2.1. Special Status Wildlife Species Considered for the CSA 5 Erosion Control Project

Table 1. Special Status Wildlife Species Considered for the CSA #5 Erosion Control Project								
Common Name *Scientific Name*	Federal Status[+]	State Status[+]		Local Status[+]	Occur within 0.5 miles of Project Area	Suitable Habitat within 0.5 miles of Project Area	Potential for Occurrence	Habitat Association (only discussed for species with a suitable habitat)
		CESA	CDFW					
Northern goshawk *Accipiter gentilis*			SSC	S TRPA	Yes	Yes	**Moderate. No Potential to Impact TRPA Threshold Standard.** There is a TRPA Northern Goshawk Disturbance Zone outside of the Project area but within the 0.5 mile buffer. No improvements are proposed outside of the Project boundary and the TRPA Disturbance Zone does not overlap with the Project boundary. This species could pass through the Project area, but suitable breeding habitat is not present in the Project survey area.	Northern goshawk are distributed throughout California in middle to higher elevation forested areas, particularly in the North Coast Ranges through Sierra Nevada, Klamath, Cascade, and Warner Mountains (Zeiner et al. 1990). Locally, they can be yearlong residents and seasonal migrants. Goshawks usually nest on north-facing slopes near water and require mature conifer or aspen forests with large diameter trees, dense canopy cover, and an open under story interspersed with meadows or shrub patches. Open areas provide foraging opportunities, while logs, snags, and broken-top trees are used as "plucking posts" to de-feather prey. Nests are usually located within the largest tree in the stand, next to the bole of the tree, in the lower third of the canopy.
Osprey *Pandion haliaetus*			WL	TRPA	Yes	Yes	**Moderate. No Potential to Impact TRPA Threshold Standard.** Osprey could pass through the Project area as there is one documented and several undocumented observations, but suitable breeding and foraging habitat is not present in the Project survey area.	Yearlong residents. Osprey diets are almost entirely fish; therefore, its range has a close association with open, calm, and clear waters for feeding. Platform nets are built atop large snags, living trees, and human structures. Tall, open trees called "pilot trees" are required nearby for landing approaches and flight practice for fledglings.

Table C-2.1. Special Status Wildlife Species Considered for the CSA 5 Erosion Control Project

Table 1. Special Status Wildlife Species Considered for the CSA #5 Erosion Control Project								
Common Name *Scientific Name*	Federal Status[+]	State Status[+]		Local Status[+]	Occur within 0.5 miles of Project Area	Suitable Habitat within 0.5 miles of Project Area	Potential for Occurrence	Habitat Association (only discussed for species with a suitable habitat)
		CESA	CDFW					
Waterfowl (collectively)				TRPA	Yes	Yes	**Moderate. No Potential to Impact TRPA Threshold Standard.** Designated Wildlife Habitat for Waterfowl is not located within the Project area. Waterfowl may use nearby Lake Tahoe to forage, but existing disturbances and lack of suitable habitat make it unlikely they would nest in the Project area.	Mallards and other waterfowl are found throughout California in wetlands and waters such as lakes, creeks, drainages, marshes, and wet meadows. Locally, some species such as mallards are common, yearlong residents. While breeding, they need shallow-water areas with nest sites nearby. Usually nests in fairly dry sites in tall, dense herbaceous vegetation or low shrubbery within 100 m of water, rarely up to 8 km (Bellrose 1976).
Willow flycatcher *Empidonax traillii*		SE		S	No	No	**Not expected to occur.** The willow flycatcher has very distinct habitat requirements that dictate meadow size, vegetation type, height, and access to water; no suitable habitat has been identified within the Project area or buffer.	
Mammals								
American marten *Martes caurina*				S	No	Yes	**Low.** Habitat requirements for cover, breeding, and foraging are lacking within the Project survey area but are within 0.5 miles. This species may pass through but is not expected to establish a denning site in the survey area.	American marten occur in North Coast regions, Klamath, Cascades and Sierra Nevada ranges (Timossi 1995). In Lake Tahoe, the marten population is moderate in size, and suspected to be decreasing (Manley and Schlesinger 2000). Important forest types include mature red fir, lodgepole pine, mixed conifer, and sub-alpine conifer (Zeiner et al. 1990). They are not readily found in clear areas, devoid of canopy cover. Instead, they prefer medium to dense canopy closures with many down logs, snags, and scattered clearings with access to riparian areas. Such structural diversity supplies cover for den sites, thermoregulation, protection from predators, and foraging habitat.

Table C-2.1. Special Status Wildlife Species Considered for the CSA 5 Erosion Control Project

Table 1. Special Status Wildlife Species Considered for the CSA #5 Erosion Control Project								
Common Name *Scientific Name*	Federal Status[+]	State Status[+]		Local Status[+]	Occur within 0.5 miles of Project Area	Suitable Habitat within 0.5 miles of Project Area	Potential for Occurrence	Habitat Association (only discussed for species with a suitable habitat)
		CESA	CDFW					
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.	
Sierra Nevada mountain beaver[4] *Aplodontia rufa californica*			SSC		No	Yes	Not expected to occur. Habitat requirements for cover, breeding, and foraging are lacking within the Project survey area but are within 0.5 miles. It is not expected this species would pass through the Project area as appropriate stream requirements are not found there.	Found throughout the Cascade, Klamath, and Sierra Nevada Ranges. Distribution often is scattered; populations local and uncommon in the Sierra Nevada and other interior areas. Occur in dense riparian-deciduous and open, brushy stages of most forest types. Typical habitat in the Sierra Nevada is montane riparian with a dense understory near water. Deep, friable soils are required for burrowing, along with a cool, moist microclimate (Zeiner et al. 1990).
American badger *Taxidea taxus*			SSC		No	Yes	Not expected to occur. Habitat requirements for cover, breeding, and foraging are lacking within the Project survey area but are within 0.5 miles. It is not expected this species would pass through the Project area as appropriate habitat requirements are not found there.	Uncommon, permanent resident found throughout most of the state, except in the northern North Coast area (Grinnell et al. 1937). Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Suitable habitat for badgers is characterized by herbaceous, shrub, and open stages of most habitats with dry, friable soils (Zeiner et al. 1990).

[4] Formerly mountain beaver, *Aplodontia rufa*

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		CESA	CDFW					
Mule deer *Odocoileus hemionus*				TRPA	Yes	Yes	Moderate. No Potential to Impact TRPA Threshold Standard. Suitable habitat is located outside the Project area. Habitat in the Project area is not suitable for fawning due to existing disturbance levels.	Mule deer have a widespread distribution throughout most of California (CDFW 2014). Locally, they are common to abundant migrants. Shrubs provide food, cover, and thermoregulation, making them essential habitat criteria. Openings interspersed through dense thickets and abundant edges are preferred. Deer require 3 quarts of water/day/100 lb (Zeiner et al. 1990), so access to water and mineral licks are also critical features to suitable habitat.
Sierra Nevada snowshoe hare *Lepus americanus tahoensis*			SSC		No	Yes	Moderate. This species could use the Project area for foraging, but the small, exposed nature of the survey area does not meet breeding habitat requirements.	The Sierra Nevada snowshoe hare is a medium-sized cinnamon-brown rabbit characterized by short ears, large hind feet, and a short tail. Snowshoe hares are secretive and typically observed when flushed. This species is most active during the night or early morning. Snowshoe hares in general have populations that tend to fluctuate dramatically; however, the *tahoensis* subspecies that occupies fragmented habitat, may not show dramatic population fluctuations (Zeiner et al. 1990, CDFW 2014).
Fisher (West Coast Distinct Population Segment) *Pekania pennanti*	Proposed Threatened	SCT	SSC		Yes	Yes	Not expected to occur. Although a historical occurrence does exist (from 1983) within 0.5 miles of the Project, appropriate habitat for denning and foraging is not present within the survey area.	Rare residents. Woody debris, vegetated understory, and continuous, dense canopy cover is essential for foraging and cover. Fishers also favor riparian areas as rest sites. Dens are made in cavities of large conifers; both snags and live trees are used. Rarely enter areas of low canopy cover, or patches of large clearings.

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		CESA	CDFW					
Sierra Nevada red fox *Vulpes vulpes necator*		ST			No	Yes	Not expected to occur. Habitat requirements for cover, breeding, and foraging are lacking within the Project survey area but are within 0.5 miles. Presumed extirpated from the Tahoe Basin (Schlesinger and Romsos 2000).	Sierra Nevada red fox are found in the Cascades and from Lassen to Tulare County (CDFW 2014). Their local population size has high imperilment, but numbers are suspected to be increasing (Manley and Schlesinger 2000). Although most habitats found in the Lake Tahoe Basin are suitable for Sierra Nevada red fox, they are very rare in this region. Habitats they are found in include wet meadows, sub-alpine conifers, lodgepole pine, red fir, aspen, montane chaparral, riparian, mixed conifer, and Jeffrey pine. Open areas for hunting and covered areas for den sites are required, making habitat edges ideal.
Pallid bat *Antrozous pallidus*			SSC	S	No	No	Not expected to occur. 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. Roosting sites (rocky outcrops, cliffs, and crevices with access to open habitats for foraging) are sensitive to disturbance.	

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		CESA	CDFW					
Townsend's big ear bat *Corynorhinus townsendii*		SCT	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			TRPA	No	No	Not expected to occur. There are no streams or Lake areas in or adjacent to the Project area to have potential Lahontan cutthroat trout habitat.	
Lahontan Lake tui chub *Gila bicolor pectinifer*			SSC	S	No	No	Not expected to occur. Suitable habitat does not exist within or adjacent to the Project area.	

[+]Special Status Codes

FE = Federally Endangered 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 = CESA State Candidate for Delisting
SCT = State Candidate Threatened
SE = CESA State Endangered
ST = CESA State Threatened
SSC = DFG Species of Special Concern
FP = DFG Federally Protected
WL = DFG Watch List
S = USFS Region 5 Sensitive Species
TRPA = TRPA Special Interest Species

Sources: CDFW 2015, CNDDB 2015, TRPA 2011, TRPA 2015, TRPA 2010, USDA 2015, and USFWS 2015