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

CONSTRUCTION & 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

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 (Transportation), Tahoe Engineering 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, Transportation 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 Transportation. 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: Meyers Stream Environment Zone/ Erosion Control Project (CIP No. 95179)	
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 the community of Meyers in South Lake Tahoe. The Project is located in the southern section of the Lake Tahoe Basin in Sections 20, 29 and 30, Township 12 North, Range 18 East, Mount Diablo Meridian. The Project is bordered by the Upper Truckee River on the west and Lake Tahoe Golf Course on the northwest, US Highway 50/ State Route 89 on the south, and by Pioneer Trail on a small portion to the east.	
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: Donaldo Palaroan, 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 95814.

PROJECT DESCRIPTION

The County proposes to implement the Meyers Stream Environment Zone/ Erosion Control Project (Project) during the 2016 and 2017 construction seasons 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 #01.01.01.0025 (TRPA 2012; formerly #191, TRPA 2001). This Project is being designed and constructed with financial assistance from the State of California, the United States Forest Service - Lake Tahoe Basin Management Unit (USFS-LTBMU) and TRPA mitigation funds.

The Project site is an existing residential development in the community of Meyers in South Lake Tahoe bordered by the Upper Truckee River on the west, Lake Tahoe Golf Course on the northwest, US Highway 50/ State Route 89 on the south, and by Pioneer Trail on a small portion on the east (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

Transportation 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 and 2016:

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

In November of 2015, Transportation 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, Transportation completed a Final Project Feasibility Report in February 2016. Finally, based upon further feedback, Transportation completed a Preferred Alternative Memorandum in late February 2016.

PROPOSED PROJECT

The proposed Project was selected by Transportation, 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 (Lahontan) regulations.

The Project area contains drainage pipe crossings, drainage easements which collects and conveys storm water through overland channels, corrugated steel pipe (CSP) inlets/risers, and drainage inlets, to existing outfalls and drains into the Upper Truckee River which eventually drains 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 and drainage channel side slopes. Hydrologic controls will be met through construction of roadside conveyance systems, replacement of ineffective culverts, drainage inlets, and construction of offline/inline infiltration systems which will work towards reductions in peak flows and volumes. Treatment measures will consist of infiltrating channels, a basin, and subsurface infiltration systems which will be designed to capture and infiltrate the first flush of storm water runoff.

In order to construct the proposed erosion control and water quality aspects of the proposed Project, easements must be obtained from the following public properties, listed by its Assessor Parcel Number (APN):

California Tahoe Conservancy (CTC) Parcels (License Agreement):

034-402-02	034-270-39	034-401-22	033-603-01	034-392-09
034-401-13	033-601-04	034-392-11	033-582-05	034-391-09
034-401-03	033-603-02	034-401-21	034-802-01	034-020-24
034-401-16	034-791-01	034-392-05	034-401-14	033-601-03
034-392-10	034-221-14	034-215-08	034-401-11	033-603-03
034-392-08	034-401-15	034-270-55	034-401-17	033-611-01
034-224-14	034-401-12	033-603-06	034-392-12	034-221-16

USFS Parcels (Special Use Permit)

034-401-05	034-392-01	034-221-47	034-372-16	033-582-04
034-401-18	034-391-04	034-221-08	034-382-26	033-581-02
034-401-20	034-391-08	081-020-03	034-203-18	033-581-03
034-401-23	034-224-03	034-020-30	034-201-02	034-221-11
034-392-07	034-221-30	034-384-01	034-201-03	034-221-13
034-392-06	034-221-45	034-010-23	034-793-07	033-604-03

Santa Fe Road/ San Diego Street Drainage Easement

This area has the most direct discharge of any runoff from the Project area directed for the Upper Truckee River. At this location, hydrologic models predict the highest flow of all the discharges in the Project area. Water quality monitoring quantified the concentrations of pollutants and ranked this problem area with very turbidity levels. The existing nine acre meadow bounded by Santa Fe Rd on the west and US Highway 50/ State Route 89 on the east, has been impacted by development. Runoff used to flow unimpeded to the meadow where frequent flooding provided treatment before flows reached the Upper Truckee River. Approved subdivision improvements consequently rerouted former flows in a trapezoidal channel aligned along a 30-foot wide drainage easement along the west side of the meadow. The ditch essentially took the natural treatment system off line and enabled wetting of the south end of the meadow only during high flood events. Drying of the meadow is evident in recent aerial photos. Flooding of the meadow was infrequent after flows were redirected.

Approximately 575 acres of watershed drain to the nine acre meadow with the majority of the contribution entering from the State's storm drain system at Apache Ave and Santa Fe Rd. Flows are diverted from the meadow through a channel which drains to a single outlet pipe under Santa Fe Rd where it continues to flow as Meyers Creek. The existing channel is dense with healthy stands of willow at the upper portion of the channel near the diversion. Young pines and other dense vegetation downstream had established along the banks. There are signs of past thinning practices of the dense stands of lodgepole pines lining the channel. A previous water quality improvement project in 1988 redirected a percentage of the stream back to the lower half of the meadow. Accumulated debris, man-made user trail bridges and walkways impede flows to the meadow.

Proposed improvements along the drainage easement include removing trees, vegetation and debris for improved channel efficiency and functionality; and, diversion/ check dams to re-wet the meadow, slow flow velocities, pond, spread, promote infiltration, and reduce sediment transport downstream. USFS (13 total) and CTC (19 total) parcels adjoin the channel, beginning at the intersection of US Highway 50/ State Route 89 to San Diego St. Taking advantage of these public parcels is critical to reconnecting Meyers Creek to its floodplain and restoring the wetland processes including vegetation, soil chemistry, aquatic systems, biological organisms, wildlife and possibly fisheries.

Existing pipes on Santa Fe Rd will be removed and replaced to improve efficiency and sediment capturing capabilities. CTC parcel, APN 034-402-02, will be used to construct a portion of the southerly Santa Fe Rd pipe crossing. Flows from this pipe will be directed towards the main channel for additional treatment and conveyance. The northerly pipe on Santa Fe Rd will also be removed and replaced as this pipe shows signs of failure.

The pipe crossing at San Diego St is an existing 36-inch CSP and in need of replacement. A new pipe will improve conveyance and help to protect the inlet and outlet conditions of the pipe. Downstream of this proposed pipe, channel improvements are proposed to include channel armoring and rock check dams.

A new pipe crossing at the corner of San Diego St and Choctaw St with CSP inlets is proposed to capture runoff and sediment before conveying flows towards Meyers Creek.

Apache Avenue/ Sioux Street Drainage Easement, San Diego Street

An existing drainage easement between East San Bernardino Ave and Sioux St is underutilized. Stormwater runoff along Apache Ave lacks the proper conveyance facilities to direct the flows to the drainage easement. The reestablishment of the roadside conveyance systems is proposed to discharge to the CSP inlets on both sides of Apache Ave along with a pipe crossing to capture runoff and sediment before conveying to the drainage easement. The proposed improvements along Apache Ave are intended to stabilize eroding roadside shoulders and capture sediment into easily maintainable drainage structures and facilities.

In order to take advantage of this easement from Apache Ave to San Diego St, the drainage channel needs to be reestablished by removing trees and/or debris for improved efficiency and functionality. The drainage easement continues to the north beyond San Diego St via a proposed pipe crossing replacement (see the description under East San Bernardino Avenue/ Arrowhead Avenue/ Ute St Drainage Easements below for more details).

A pipe crossing east of Apache Ave on Sioux St is an existing 12-inch diameter CSP and in need of replacement. A new pipe crossing with the appropriate end treatment and an infiltrating CSP inlet downstream of the pipe is proposed within the County ROW.

Another pipe crossing west of Arrowhead Ave on Sioux St is an existing 15-inch diameter CSP which is a part of a storm drain system which captures roadside ditch flows and conveys to the drainage easement downstream. The existing pipe downstream of the CSP inlet is on private property and not within an existing easement. However, the adjacent vacant parcel is a CTC parcel (APN 034-215-08). An infiltrating CSP inlet is proposed to capture roadside ditch flows on Sioux St then conveying the flows under a new pipe crossing discharging onto APN 034-215-08. The proposed improvements will take advantage of the CTC parcel for additional treatment via berms, rock spillways, and channels prior to reaching the drainage easement.

Proposed CSP inlets will capture roadside ditch flows and function as junction structures at each corner of the San Diego St/ East San Bernardino Ave intersection. The pipes will connect the CSP inlets for conveyance and eventually discharge into the drainage easement on the north side of San Diego St.

Arrowhead Avenue/ Mohawk Street/ Crow Street/ Modoc Way Termini

An eroding, bare drainage channel carries flows from a south to north direction. Existing pipe crossings exist at the end of Mohawk St, Crow St, and Modoc Wy. These pipes are hydraulically insufficient as the outlet conditions of each channel are higher in elevation, therefore sediment and debris tends to collect in the pipes and reducing its flow capacities. The existing pipes are proposed for removal and replacement to improve conveyance with stabilized inlet and outlet features to minimize erosion and channel degradation. Portions of the drainage channel will require tree and/or debris removal for improved efficiency and functionality.

At each roadway terminus, a steel gate exists to prevent vehicles accessing the USFS and CTC parcels. These gates are open during winter operations to allow for snow removal equipment to turn around. However, this area is unpaved and increases the potential for dust and sediment runoff, therefore, for each roadway an improved turnaround for snow removal operations is proposed including potential water quality features for snow storage.

A Special Use Permit on a USFS parcel (APN 034-020-30) and a License Agreement on a CTC parcel (APN 034-020-24) will be required to install the proposed improvements.

An existing drainage easement between Crow St and Modoc Wy is underutilized. This drainage easement lacks the proper pipe and inlet network to properly convey runoff from Hopi Ave. In order to take advantage of this drainage easement, the drainage channel first, needs to be reestablished by removing trees and/or debris removal for improved efficiency and functionality. CSP inlets on the east and west side of Hopi Ave along with a pipe crossing are proposed to capture runoff and sediment before conveying to the drainage easement.

Arapahoe Street Drainage Easement

The existing arch pipe under Arapahoe St conveys flows originating from the State ROW to a drainage easement between a private parcel (APN 034-221-07) and a USFS parcel (APN 034-221-08). A proposed CSP inlet with treatment capacities is proposed along with removing and replacing the existing arch pipe, then redirecting flows onto APN 034-221-08 for additional treatment and runoff volume reduction. The existing channel will be relocated onto the USFS parcel and

restored. Proposed berms/rock checks with spillways are proposed along the new alignment of the channel to reduce the velocities and promote infiltration before flows converge on to the main channel to the rear of the parcel.

Arapahoe St also has opportunities to reduce the impervious coverage resulting in reduced pavement runoff. A cul-de-sac bulb was constructed as part of one unit of the subdivision then another unit was added to extend Arapahoe St to the north. The excess pavement is no longer necessary. Pavement will be removed with existing driveways being extended and still maintain a standard roadway width for vehicular traffic. The area will be restored and revegetated.

Pioneer Trail/ US Highway 50/ State Route 89

A previous water quality improvement project constructed erosion control features on USFS parcel (APN 081-020-03) and two CTC parcels (APN 034-270-39 and APN 034-270-55) to treat runoff prior to entering the US Highway 50/ State Route 89 right-of-way. The Project proposes to build upon and enhance existing water quality improvements.

An outlet channel just south of the Pioneer Trail/ Southern Pines intersection will require bank stabilization and channel armoring for source control purposes. Two separate channels exist on in this area: one that follows the alignment of the toe of slope from the subdivision to the north, the other approximately runs through the middle of the parcels. The latter, contains rock check dams to slow flow velocities, pond, spread, promote infiltration, and reduce sediment transport downstream. Sediment and debris removal is necessary to improve efficiency and functionality in this main channel. Rock diversion dams are proposed on the northerly channel to divert flows to the main channel and take advantage of the existing rock check dams.

On APN 034-270-39 and APN 034-270-55, a proposed infiltrating basin will further capture flows and sediment for additional treatment opportunities.

Country Club Drive/ US Highway 50

Flows originating from the State ROW will be directed to infiltrating sediment basins and armored channels on CTC parcels (APN 033-611-01, APN 033-603-01, APN 033-603-02, APN 033-603-03, and APN 033-603-06) for treatment opportunities.

Both sides of Country Club Dr roadside ditches will be armored to prevent further channel degradation. On the north side of Country Club Dr, the roadside ditch flows will be directed on to CTC parcel APN 033-601-04 for treatment; an infiltrating sediment basin will be located near the corner of Arapahoe St and Country Club Dr. The south side roadside ditch flows will be directed towards a CSP inlet.

On the east side of Arapahoe St, the roadside ditch will be armored to prevent further channel degradation and flows will be towards a proposed CSP inlet for treatment before it crosses under a new pipe, eventually discharging on to the infiltrating sediment basin on APN 033-601-04.

A new pipe crossing from the sediment basin on APN 033-601-04 will discharge on to another CTC parcel (APN 033-602-03) for additional treatment and volume reduction. An armored channel will connect the sediment basin to the existing drainage channel before it leaves the Project area.

Bakersfield Street

The proposed improvements at two locations along Bakersfield St are to improve conveyance while also adding treatment opportunities.

Flows from the area described below from the East San Bernardino Avenue/ Arrowhead Avenue/ Ute St Drainage Easements will be directed to the proposed system north of San Diego St. This system will include infiltrating CSP inlets with a pipe crossing directing flows to the west onto an infiltrating sediment basin proposed on CTC parcel APN 034-791-01.

Existing sediment traps with no treatment capacities will be removed and replaced with new infiltrating CSP inlets. Old pipes will also be removed and replaced as these pipes have reached its useful lifespan. The outlet channel on CTC APN 034-802-01 will be reestablished and armored to prevent channel degradation.

Ute Street/ Country Club Drive

Flows from the main channel along Ute St will be split and redirected to a new storm drain system which will discharge on to two public parcels, one CTC parcel (APN 033-582-05) and the other a USFS parcel (APN 033-582-04). An infiltrating sediment basin will help in reducing the volumes of stormwater runoff to the main Project outfall pipe on Country Club Drive. Also flows from Country Club Drive, west of these public parcels, will also be directed to the sediment basin for further treatment and volume reduction. The discharge of the sediment basin will flow into an armored channel into pipe connect to a CSP inlet, then another pipe to cross Country Club Dr. This new pipe crossing will discharge to two USFS parcels (APN 033-581-03 and APN 033-581-02) in a proposed infiltrating sediment basin. The sediment basin will provide

the extra treatment and retention of stormwater before it discharges into the drainage easement. The drainage easement will require tree and/or debris removal for improved efficiency and functionality.

Any flows from the main 57-inch by 38-inch arch CSP crossing will be diverted to the sediment basin on APN 033-581-02.

Potential roadside ditch improvements along Country Club Drive may be necessary to accommodate the new improvements.

East San Bernardino Avenue/ Arrowhead Avenue/ Ute Street Drainage Easements

The drainage easements near East San Bernardino Avenue, Arrowhead Avenue, and Ute St will require tree and/or debris removal, then reestablishing its trapezoidal channel shape and stabilizing the banks. The shape of the channel is critical to its functionality and efficiency while also controlling source control issues from existing drainage channels.

As flows continue along the drainage easement in the northerly direction between East San Bernardino Ave and Arrowhead Ave, the proposed improvements will utilize USFS parcels for treatment (APN 034-203-18) and redirect stormwater to the west. Improvements on APN 034-203-18 include an infiltrating storm drain system, however if cost becomes a factor, an infiltrating sediment basin is proposed. The drainage easement towards Ute St will then receive less runoff volume, therefore less impact to the drainage systems along Country Club Dr.

The outfall flows from APN 034-203-18 will be directed to an infiltrating storm drain system along East San Bernardino Ave with a pipe crossing the same roadway to direct flows onto two USFS parcels (APN 034-201-02 and APN 034-201-03). A proposed infiltrating sediment basin is proposed to take advantage of the treatment possibilities. Another USFS parcel downstream of the sediment basin will also be used, APN 034-793-07, for further treatment and conveyance towards Bakersfield St via an infiltrating storm drain system.

East San Bernardino Avenue/ Geronimo Way

Compacted road shoulders and lack of drainage is evident along East San Bernardino Ave near the Lake Tahoe Environmental Science Magnet School. At the intersection of Apache Ave, this roadway serves as the overflow of vehicles for student pickup and drop off area for the school. Vehicles typically park along the shoulders, thus compacting the shoulders and increasing stormwater runoff and reduce the potential for any infiltration.

A proposed armored channel will be installed within County ROW to address the lack of drainage, ponding issues, and unstable roadside shoulders.

A storm drain system is proposed at Geronimo Wy to directing flows towards the proposed improvements along East San Bernardino Ave. Flows from this area will be directed to more opportunities for treatment and infiltration as East San Bernardino Ave intersects with San Diego St.

Apache Avenue/ Washoe Street/ Arrowhead Avenue

To improve hydrologic conveyance along Apache Ave from the intersection of State Route 89/ US Highway 50 to Tomahawk Ln, the reestablishment of the roadside conveyance systems is proposed along with the installation of infiltrating CSP inlets and/or a pipe to convey runoff within the County ROW. The proposed improvements are intended to stabilize eroding roadside shoulders and capture sediment into easily maintainable drainage structures and facilities.

Both Washoe St and Arrowhead Ave (between Piute St and Cherokee St) will receive proposed improvements to include a proposed storm drain system containing CSP inlets and drainage pipes with infiltrating capacities

Tomahawk Lane

Tomahawk Ln lacks conveyance facilities, therefore a system of microbasins and shallow infiltration systems are proposed. Pipe crossings and CSP inlets at the intersections at Washoe St, Piute St, Cherokee St, and Mojave St will address the ponding and sediment deposition issues and reestablish the roadside conveyances along Tomahawk Ln.

East San Bernardino Avenue/ Indigo Way/ Bakersfield Street

Along East San Bernardino Ave from Apache Ave to just west of Bakersfield St, a proposed storm drain system containing CSP inlets and drainage pipes with infiltrating capacities will be installed within County ROW. The storm drain system will discharge into a proposed infiltrating sediment basin on USFS parcel, APN 034-010-23, to serve as an offline treatment improvement before connecting back into the existing channel.

A proposed pipe crossing with CSP inlets will help address the lack of drainage while also providing runoff treatment opportunities on Indigo Way. The USFS parcel, APN 034-32-16, will be used for additional treatment via a new armored channel.

Hopi Avenue

The lack of drainage infrastructure results in ponding and sediment deposition at each intersection along Hopi Ave. The roadways intersecting Hopi Ave include Magua St, Arrowhead Ave (both intersections), Mohawk St, and Crow St. To improve hydrologic conveyance at these locations, the reestablishment of roadside conveyance systems is proposed along with installation of infiltrating CSP inlets, drainage pipes, and armored channels/swales. The proposed improvements will not only aid in conveyance, but will also have capacity for trapping sediment. Flows will be directed to an existing drainage easement between Crow St and Modoc Wy.

SUMMARY OF ENVIRONMENTAL ANALYSIS

Transportation 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, Transportation determined that the proposed Project will not have any significant environmental impacts with the implementation of mitigation measures. Transportation will adopt the mitigation measures located in the Mitigation Monitoring and Reporting Program. This conclusion is supported by the following findings:

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

Aesthetics: The Project area is visible from State Route 89/ US Highway 50, 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 BMPs, and construction controls shall be implemented to prevent the Project activities from violating air quality standards and therefore the Project has a less than significant impact.

Biological Resources: Field surveys and assessments were conducted within the Project survey area for special status botanical and wildlife species on September 27, 2011, and then again on June 26 and 29, 2015. The biological assessment surveys observed no federal or state-listed candidate, or proposed botanical or wildlife species in the Project study area. However, six recorded occurrence and/or USFS modeled habitat for special status species are located within the 0.5 miles of the Project area: four species have USFS modeled habitat within the Project boundary but were not observed (*Botrychium sp., Lewisia kelloggi ssp. hutchisonii, and kelloggii, and Peltigera hydrothyria*), one species that was also not observed but does have USFS modeled habitat within the 0.5 miles of the Project area (*Arabis rectissima var. simulans*), and one historical species occurrences within the 0.5 miles of the Project area (*Carex limosa*). Suitable wildlife habitat conditions do exist within 0.5 miles of the Project area for willow flycatcher, northern goshawk, waterfowl, Sierra Nevada mountain beaver (formerly mountain beaver), and mule deer. A noxious weed survey was also conducted within the Project survey area on September 27, 2011, October 26, 2011, and then again on June 26 and 29, 2015. The survey identified two noxious weed species within the Project area: oxeye daisy (*Chrysanthemum leucanthemum*) and cheatgrass (*Bromus tectorum*). A Noxious Weed Mitigation/Eradication Protocol (Protocol) will be implemented by Transportation 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, Transportation 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 October 7, 2011, and again on June 23 and 24, 2015. Previous inventories were performed adjacent to the study area. Review of those inventories revealed the following:

- One historic period archaeological resource was identified within the Project Area of Potential Effect (APE).

- A portion of Segment 9 of site 05190001042, part of Old Highway 89, was identified within the expanded project area (survey parcel APN 034-270-30). Segment 9 was recorded in 2002 and was found to be accurately described but not mapped correctly. Like the 2002 recording, evaluation of this segment is deferred until the linear resource as a whole, is evaluated. A California Department of Parks and Recreation continuation sheet with an updated map has been prepared.
- A segment of the Lake Valley Telephone Line, site 05190000481, is mapped through the Project area; however, evidence of such a resource was not identified. As such, it was not evaluated. A California Department of Parks and Recreation continuation sheet with an updated map has been prepared and on file.
- Individual examples of Comstock or later era high-cut stumps were observed but not recorded.
- Recent (less than 50 years in age) roadside debris was observed but not recorded.

Significant heritage resources are not present within the APE. Thus, the Project will not impact properties listed on or eligible to the National Register of Historic Places, nor will it impact historic resources that meet the criteria outline in Section 5024.1 of the California Public Resource Code or Section 29 of the TRPA Code of Ordinances. No historic properties will be affected in compliance with Advisory Council on Historic Preservation regulations (36 CFR part 800).

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 900 cubic yards (300,000 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 BMPs prior to and during construction to prevent erosion within the Project area. Transportation 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 system 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 Transportation 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 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 Transportation will advise potentially affected residents of the proposed construction activities including duration, schedule, and contacts for filing noise complaints. Transportation and/or contractor will respond to all noise complaints received within one working day and will work to resolve the issue immediately.

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

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

Utilities and Service Systems: During Project construction, portions of the site may have exposed soil areas that, during a rain or high wind event or utility line breach, could cause minor erosion. Once construction is complete and the erosion control and water quality improvement measures are in place, surface runoff and erosion will be reduced and water quality

will be improved. The contractor will prepare and adhere to a SWPPP and a Temporary Erosion Control 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, Transportation's analysis focused on construction impacts estimated using Transportation'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. Transportation 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 80 working days

Based on these assumptions, the Project would emit approximately 115 metric tons of CO_2 equivalents.

This estimated amount is negligible in comparison to the statewide emissions target of 480,000,000 metric tons discussed above (0.0000003 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 of construction work, the Project will have a less than significant impact on GHG emissions.

PUBLIC NOTICE

The comment period for this document closes on April 30, 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 office (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.

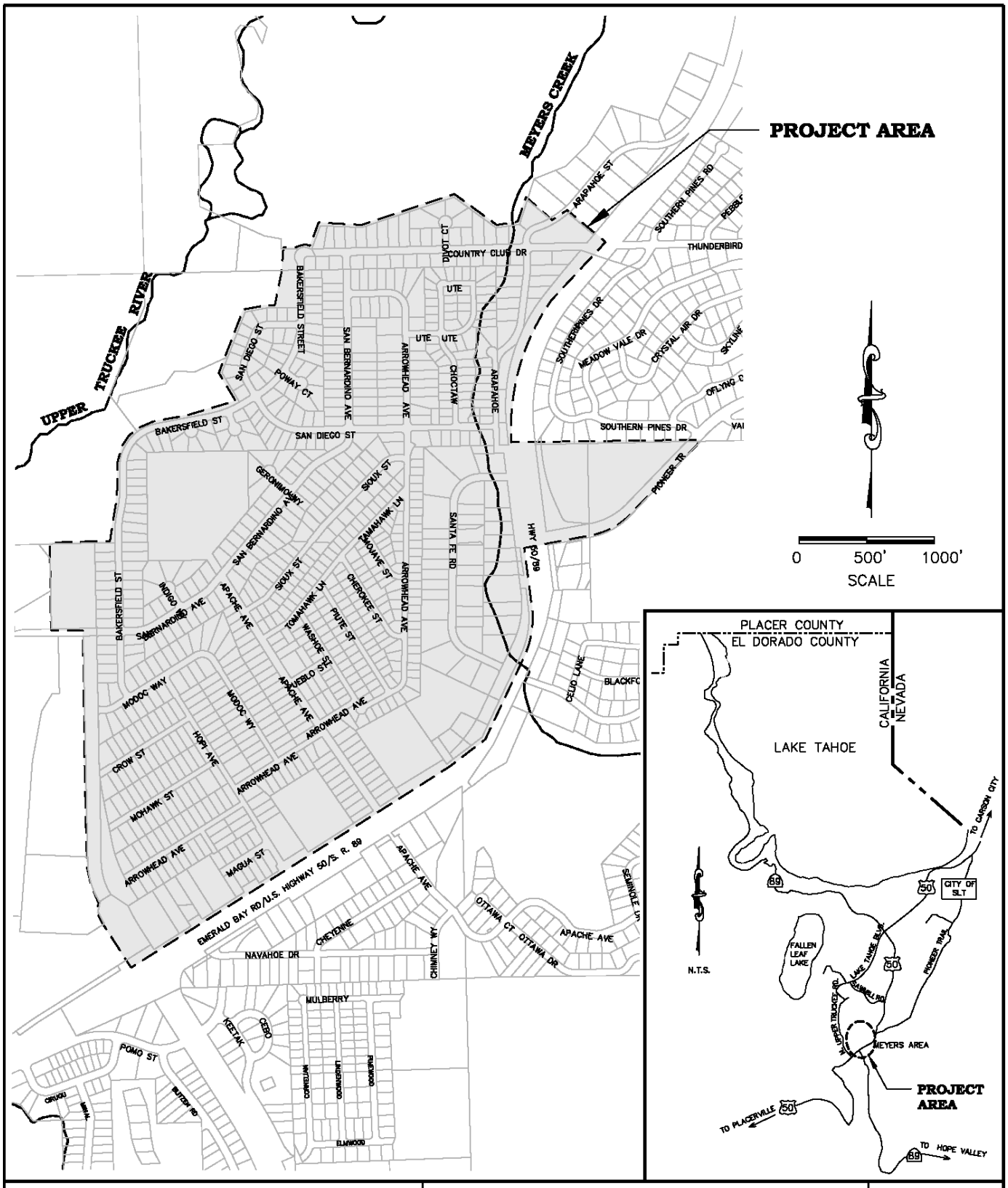
If you wish to appeal the appropriateness or adequacy of this document, address your written comments to our finding that the Project will not have a significant adverse effect on the environment: (1) identify the environmental effect(s), why they would occur, and why they would be significant, and (2) 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.

_____

Donaldo Palaroan, Senior Civil Engineer
County of El Dorado – Lead Agency

Recorder's Certification

FIGURE 1



COUNTY OF EL DORADO COMMUNITY DEVELOPMENT AGENCY TRANSPORTATION DIVISION	MEYERS STREAM ENVIRONMENT ZONE/ EROSION CONTROL PROJECT Project Location Map		FIGURE 1
	DATE: 12/15	CIP NO.: 95179	BY: DSP

CEQA
INITIAL STUDY/
PROPOSED MITIGATED NEGATIVE DECLARATION

MEYERS STREAM ENVIRONMENT ZONE/
EROSION CONTROL PROJECT
EIP PROJECT # 01.01.01.0025
CIP No. 95179

STATE CLEARINGHOUSE # TBD

Prepared by:

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

June 2016

TABLE OF CONTENTS

1.0 INTRODUCTION 1
2.0 PROJECT DESCRIPTION AND LOCATION 1
2.1 Project Need and Existing Conditions 2
2.2 Project Approach 2
2.3 Concept Alternatives 3
2.4 Detailed Site Conditions and Proposed Project 6
2.5 Project Benefits 6
3.0 ENVIRONMENTAL SETTING AND SITE CHARACTERISTICS 7
4.0 PUBLIC INPUT AND PDT COORDINATION 12
5.0 RIGHT-OF-WAY REQUIREMENTS 12
6.0 COVERAGE AND PERMIT ISSUES 13
7.0 MITIGATION AND MONITORING 13
8.0 REFERENCES 14

FIGURES

Figure 1 – Project Location Map

Figure 2 – Alternative 1

Figure 3 – Alternative 2

Figure 16 –Problem Area Map

APPENDICES

Appendix A: CEQA Checklist

Appendix B: Mitigation Monitoring and Reporting Program

Appendix C: Plant, Noxious Weed and Wildlife Tables

1.0 INTRODUCTION

The County of El Dorado (County), Community Development Agency, Transportation Division (Transportation), prepared this Draft Initial Study to identify and assess the anticipated environmental impacts of the proposed Meyers Stream Environment Zone/ 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.

Transportation 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, Transportation will recirculate the document for public review. The public review period for the Draft Initial Study/Proposed Mitigated Negative Declaration shall begin on March 30, 2016 and end on April 30, 2016. Comments received after 5:00 pm on April 30, 2016 will not be considered. Written responses should be sent to Donaldo Palaroan, 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
donaldo.palaroan@edcgov.us

2.0 PROJECT DESCRIPTION AND LOCATION

Transportation proposes to implement the proposed Project during the 2016 and 2017 construction seasons 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 #01.01.01.25. This proposed Project is being designed and constructed with financial assistance from the United States Forest Service - Lake Tahoe Basin Management Unit (USFS-LTBMU), California Tahoe Conservancy (CTC), and TRPA mitigation funds.

The Project site is an existing residential development in the community of Meyers in South Lake Tahoe bordered by the Upper Truckee River on the west, Lake Tahoe Golf Course on the northwest, US Highway 50/ State Route 89 on the south, and by Pioneer Trail on a small portion on the east (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.

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). Figures 2 and 3 outline the proposed Project alternatives, 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 Transportation, 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
- Compacted Parking Areas

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 drainage pipe crossings, drainage easements which collects and conveys storm water through overland channels, corrugated steel pipe (CSP) inlets/risers, and drainage inlets, to existing outfalls and drains into the Upper Truckee River which eventually drains 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.

2.2 Project Approach

Transportation 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, 2016)
- Preferred Alternative Memorandum (County, 2016)

In November of 2015, Transportation 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, Transportation completed a Final Project Feasibility Report in February 2016. Finally, based upon further feedback, Transportation completed a Preferred Alternative Memorandum in late February 2016.

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, Transportation 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 Transportation, on the preferred Project alternative.

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

The three Project alternatives that were considered are presented below, along with erosion control measures that were considered but not presented. Figure 16 outlines the existing conditions and known problem areas within the Project area. Figures 2 and 3 identify the proposed improvements for the preferred Project alternative, which is described in further detail below in Section 2.4.

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

Alternative 1

Figure 2 depicts the facilities and treatments proposed for Alternative 1. Conditions requiring source control include eroding channel side slopes, eroding slopes, and areas of sediment deposition.

Alternative 1 proposes to focus its improvements on Meyers Creek from Santa Fe Rd to approximately 500 feet north of San Diego St. Improvements are also planned near the intersection of Pioneer Trail and US Highway 50/State Route 89 to reduce the amount of storm water runoff prior to reaching Meyers Creek.

This area has the most direct discharge of any runoff from the Project area directed for the Upper Truckee River. At this location, hydrologic models predict the highest flow of all the discharges in the Project area. Water quality monitoring quantified the concentrations of pollutants and ranked this problem area with very turbidity levels. The existing nine acre meadow bounded by Santa Fe Rd on the west and US Highway 50/ State Route 89 on the east, has been impacted by development. Runoff used to flow unimpeded to the meadow where frequent flooding provided treatment before flows reached the Upper Truckee River. Approved subdivision improvements consequently rerouted former flows in a trapezoidal channel aligned along a 30-foot wide drainage easement along the west side of the meadow. The ditch essentially took the natural treatment system off line and enabled wetting of the south end of the meadow only during high flood events. Drying of the meadow is evident in recent aerial photos. Flooding of the meadow was infrequent after flows were redirected.

Approximately 575 acres of watershed drain to the nine acre meadow with the majority of the contribution entering from the State's storm drain system at Apache Ave and Santa Fe Rd. Flows are diverted from the meadow through a channel which drains to a single outlet pipe under Santa Fe Rd where it continues to flow as Meyers Creek. The existing channel is dense with healthy stands of willow at the upper portion of the channel near the diversion. Young pines and other dense vegetation downstream had established along the banks. There are signs of past thinning practices of the dense stands of lodgepole pines lining the channel. A previous water quality improvement project in 1988 redirected a percentage of the stream back to the lower half of the meadow. Accumulated debris, man-made user trail bridges and walkways impede flows to the meadow.

Proposed improvements along the drainage easement include removing trees, vegetation and debris for improved channel efficiency and functionality; and, diversion/ check dams to re-wet the meadow, slow flow velocities, pond, spread, promote infiltration, and reduce sediment transport downstream. USFS (13 total) and CTC (19 total) parcels adjoin the channel, beginning at the intersection of US Highway 50/ State Route 89 to San Diego St. Taking advantage of these public parcels is critical to reconnecting Meyers Creek to its floodplain and restoring

the wetland processes including vegetation, soil chemistry, aquatic systems, biological organisms, wildlife and possibly fisheries.

The existing arch pipe under Arapahoe St conveys flows originating from the US Highway 50/ State Route 89 to a drainage easement between a private parcel (APN 034-221-07) and a USFS parcel (APN 034-221-08). A proposed CSP inlet with treatment capacities is proposed along with removing and replacing the existing arch pipe, then redirecting flows onto APN 034-221-08 for additional treatment and runoff volume reduction. The existing channel will be relocated onto the USFS parcel and restored. Proposed berms/rock checks with spillways are proposed along the new alignment of the channel to reduce the velocities and promote infiltration before flows converge on to the main channel to the rear of the parcel.

Arapahoe St also has opportunities to reduce the impervious coverage resulting in reduced pavement runoff. A cul-de-sac bulb was constructed as part of one unit of the subdivision then another unit was added to extend Arapahoe St to the north. The excess pavement is no longer necessary. Pavement will be removed with existing driveways being extended and still maintain a standard roadway width for vehicular traffic. The area will be restored and revegetated.

Alternative 2

Figure 3 depicts the facilities and treatments proposed for Alternative 2.

The existing pipes at the western end of the roadways of Mohawk St, Crow St, and Modoc Wy will be installed to replace the existing pipes. Each pipe will contain end treatments to help stabilize the inlet and outlet features to minimize erosion and channel degradation. Additionally, an improved surface for vehicle turnaround will be installed for each roadway terminus.

The drainage easement between Crow St and Modoc Wy will be reestablished by removing trees and/or debris for improved efficiency and functionality. Corrugated steel pipe (CSP) inlets on both sides of Hopi Ave along with a pipe crossing will be installed to capture runoff and sediment before conveying to the drainage easement.

An armored channel is proposed for the eroding roadside ditches along Hopi Ave. The intersecting streets of Magua St, Arrowhead Ave (both intersections), Mohawk St, and Crow St will install infiltrating CSP inlets, drainage pipes, and armored channels/swales with flows being directed to the drainage easement between Crow St and Modoc Wy.

An armored channel is proposed for the eroding roadside ditches along Apache Ave with appropriate installation of infiltrating CSP inlets for treatment and pipe crossings for conveyance. Flows will be direct to the drainage easement between Sioux St and East San Bernardino Ave. This drainage easement will require tree and debris removal to improve its efficiency and functionality.

An existing drainage easement between East San Bernardino Ave and Sioux St is underutilized. Stormwater runoff along Apache Ave lacks the proper conveyance facilities to direct the flows to the drainage easement. The reestablishment of the roadside conveyance systems is proposed to discharge to the CSP inlets on both sides of Apache Ave along with a pipe crossing to capture runoff and sediment before conveying to the drainage easement. The proposed improvements along Apache Ave are intended to stabilize eroding roadside shoulders and capture sediment into easily maintainable drainage structures and facilities.

In order to take advantage of this easement from Apache Ave to San Diego St, the drainage channel needs to be reestablished by removing trees and/or debris for improved efficiency and functionality. The drainage easement continues to the north beyond San Diego St via a proposed pipe crossing replacement (see the description under East San Bernardino Avenue/ Arrowhead Avenue/ Ute St Drainage Easements below for more details).

A pipe crossing east of Apache Ave on Sioux St is an existing 12-inch diameter CSP and in need of replacement. A new pipe crossing with the appropriate end treatment and an infiltrating CSP inlet downstream of the pipe is proposed within the County ROW.

Another pipe crossing west of Arrowhead Ave on Sioux St is an existing 15-inch diameter CSP which is a part of a storm drain system which captures roadside ditch flows and conveys to the drainage easement downstream. The existing pipe downstream of the CSP inlet is on private property and not within an existing easement. However, the adjacent vacant parcel is a CTC parcel (APN 034-215-08). An infiltrating CSP inlet is proposed to capture roadside ditch flows on Sioux St then conveying the flows under a new pipe crossing discharging onto APN 034-215-08. The proposed improvements will take advantage of the CTC parcel for additional treatment via berms, rock spillways, and channels prior to reaching the drainage easement.

Proposed CSP inlets will capture roadside ditch flows and function as junction structures at each corner of the San Diego St/ East San Bernardino Ave intersection. The pipes will connect the CSP inlets for conveyance and eventually discharge into the drainage easement on the north side of San Diego St.

Where localized ponding and lack of drainage exists, infiltrating systems of CSP inlets and perforated pipes will be installed. These systems will be installed at the following locations: Washoe St, Arrowhead Ave, Apache Ave/ Arrowhead Ave easterly intersection, along Tomahawk Ln at each intersection of Washoe St, Piute St, Cherokee St and Mojave St.

Along East San Bernardino Ave from Apache Ave to just west of Bakersfield St, a proposed storm drain system containing CSP inlets and drainage pipes with infiltrating capacities will be installed within County ROW. The storm drain system will discharge into a proposed infiltrating sediment basin on USFS parcel, APN 034-010-23, to serve as an offline treatment improvement before connecting back into the existing channel.

A proposed pipe crossing with CSP inlets will help address the lack of drainage while also providing runoff treatment opportunities on Indigo Way. The USFS parcel, APN 034-32-16, will be used for additional treatment via a new armored channel.

Compacted road shoulders and lack of drainage is evident along East San Bernardino Ave near the Lake Tahoe Environmental Science Magnet School. At the intersection of Apache Ave, this roadway serves as the overflow of vehicles for student pickup and drop off area for the school. Vehicles typically park along the shoulders, thus compacting the shoulders and increasing stormwater runoff and reduce the potential for any infiltration.

A proposed armored channel will be installed within County ROW to address the lack of drainage, ponding issues, and stable roadside shoulders.

A storm drain system is proposed at Geronimo Wy to directing flows towards the proposed improvements along East San Bernardino Ave. Flows from this area will be directed to more opportunities for treatment and infiltration as East San Bernardino Ave intersects with San Diego St.

The drainage easements near East San Bernardino Avenue, Arrowhead Avenue, and Ute St will require tree and/or debris removal, then reestablishing its trapezoidal channel shape and stabilizing the banks. The shape of the channel is critical to its functionality and efficiency while also controlling source control issues from existing drainage channels.

As flows continue along the drainage easement in the northerly direction between East San Bernardino Ave and Arrowhead Ave, the proposed improvements will utilize USFS parcels for treatment (APN 034-203-18) and redirect stormwater to the west. Improvements on APN 034-203-18 include an infiltrating storm drain system, however if cost becomes a factor, an infiltrating sediment basin is proposed. The drainage easement towards Ute St will then receive less runoff volume, therefore less impact to the drainage systems along Country Club Dr.

The outfall flows from APN 034-203-18 will be directed to an infiltrating storm drain system along East San Bernardino Ave with a pipe crossing the same roadway to direct flows onto two USFS parcels (APN 034-201-02 and APN 034-201-03). A proposed infiltrating sediment basin is proposed to take advantage of the treatment possibilities. Another USFS parcel downstream of the sediment basin will also be used, APN 034-793-07, for further treatment and conveyance towards Bakersfield St via an infiltrating storm drain system.

The proposed improvements at two locations along Bakersfield St are to improve conveyance while also adding treatment opportunities.

Flows from the area of East San Bernardino Avenue/ Arrowhead Avenue/ Ute St will be directed to the proposed system north of San Diego St. This system will include infiltrating CSP inlets with a pipe crossing directing flows to the west onto an infiltrating sediment basin proposed on CTC parcel APN 034-791-01.

Existing sediment traps with no treatment capacities will be removed and replaced with new infiltrating CSP inlets. Old pipes will also be removed and replaced as these pipes have reached its useful lifespan. The outlet channel on CTC APN 034-802-01 will be reestablished and armored to prevent channel degradation.

Flows from the main channel (Meyers Creek) along Ute St will be split and redirected to a new storm drain system which will discharge on to two public parcels, one CTC parcel (APN 033-582-05) and the other a USFS parcel (APN 033-582-04). An infiltrating sediment basin will help in reducing the volumes of stormwater runoff to the main Project outfall pipe on Country Club Drive. Also flows from Country Club Drive, west of these public parcels, will also be directed to the sediment basin for further treatment and volume reduction. The discharge of the sediment basin will flow into an armored channel into pipe connect to a CSP inlet, then another pipe to cross Country Club Dr. This new pipe crossing will discharge to two USFS parcels (APN 033-581-03 and APN 033-

581-02) in a proposed infiltrating sediment basin. The sediment basin will provide the extra treatment and retention of stormwater before it discharges into the drainage easement. The drainage easement will require tree and/or debris removal for improved efficiency and functionality.

Any flows from the main 57-inch by 38-inch arch CSP crossing will be diverted to the sediment basin on APN 033-581-02.

Potential roadside ditch improvements along Country Club Drive may be necessary to accommodate the new improvements.

Flows originating from the US Highway 50/ State Route 89 will be directed to infiltrating sediment basins and armored channels on CTC parcels (APN 033-611-01, APN 033-603-01, APN 033-603-02, APN 033-603-03, and APN 033-603-06) for treatment opportunities.

Both sides of Country Club Dr roadside ditches will be armored to prevent further channel degradation. On the north side of Country Club Dr, the roadside ditch flows will be directed on to CTC parcel APN 033-601-04 for treatment; an infiltrating sediment basin will be located near the corner of Arapahoe St and Country Club Dr. The south side roadside ditch flows will be directed towards a CSP inlet.

On the east side of Arapahoe St, the roadside ditch will be armored to prevent further channel degradation and flows will be towards a proposed CSP inlet for treatment before it crosses under a new pipe, eventually discharging on to the infiltrating sediment basin on APN 033-601-04.

A new pipe crossing from the sediment basin on APN 033-601-04 will discharge on to another CTC parcel (APN 033-602-03) for additional treatment and volume reduction. An armored channel will connect the sediment basin to the existing drainage channel before it leaves the Project area.

Alternative 3 – No Build Alternative

Under the No Build Alternative, the existing conditions and infrastructure would remain and would not comply with current design standards and satisfy the goals and objectives of the Project.

2.4 Detailed Site Conditions and Proposed Project

The proposed Project was selected by Transportation, 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 regulations.

In order to meet the goals and objectives of the Project, the Final Project 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 Final Project Feasibility Report, Alternatives 1 and 2 was chosen as the preferred alternative and is presented in Figures 2 and 3.

2.5 Project Benefits

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

1. Reduce the amount of very fine sediment, fine sediment, and coarse inorganic sediment from the urbanized watershed bounded by the Project boundary by 33% or to the maximum extent practicable prior to discharging into Meyers Creek or the Upper Truckee River. 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 Meyers Creek and the Upper Truckee River.
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 nearby waterways.

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 Meyers Creek and the Upper Truckee River.

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 ROW with the Tahoe Resource Conservation District (TRCD) and the TRPA.

3.0 ENVIRONMENTAL SETTING AND SITE CHARACTERISTICS

The Project is located in the southern section of the Lake Tahoe Basin in Sections 20, 29 and 30, Township 12 North, Range 18 East, Mount Diablo Meridian. The Project is bordered by the Upper Truckee River on the west and Lake Tahoe Golf Course on the northwest, US Highway 50 (US50)/ State Route 89 (SR89) on the south, and by Pioneer Trail on a small portion on the east. The total Project area is approximately 328 acres and encompasses County ROW and CTC, USFS, and privately owned residential lots. Subdivisions within the Project area include:

- Tahoe Paradise;
- Tahoe Paradise Unit Nos. 2, 3, 4, 5, 6, 17, 18, and 18A;
- Country Club Estates Unit Nos. 1, 2;
- Tahoe Broder Estates Unit No. 1;
- Juniper Park; and,
- Country Club Heights Unit No. 5.

Existing improvements include approximately 26 to 30 foot wide paved County roads within 50 and 60 foot wide ROW, aging storm drain systems, overland channels, and overhead and underground utilities.

Within the Project area approximately 10% of the parcels are publicly owned by the California Department of Parks and Recreation (State Parks), CTC and the USFS. 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 6,285 to 6,340 feet above mean sea level (NGVD 1929), with the elevation of the watersheds conveying runoff into the area exceeding 7,675 feet above mean sea level. Project area topography mostly consists of flat terrain with isolated slopes exceeding 10%.

Hydrology: The United States Geological Survey (USGS) has divided the Tahoe Basin into 110 hydrologic basins and intervening areas contributing to outflow from Lake Tahoe. The Project area is located within USGS Basin 73. Basin 73 has a drainage area of 56.5 square miles and is defined as the Upper Truckee River at Mouth.

Groundwater/Wetlands: Jurisdictional waters of the US are classified into multiple types based on topography, edaphics (soils), vegetation, and hydrologic regime. Primarily, the US Army Corps of Engineers establishes two distinctions: Wetland and non-wetland waters of the US. Non-wetland waters are commonly referred to as other waters. In October 2011 and August 2015, Transportation's consultant, Nichols Consulting Engineers (NCE) performed a review of published documents and conducted field inspections to determine the presence of wetlands within the Project boundary. During the review and field inspection, there were jurisdictional wetland types mapped within the survey area.

Soils in the Project area are generally well drained with the groundwater levels measured within the Project area ranging from six inches to greater than 72 inches below existing ground surface.

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

- *Tahoe Till Glacial Moraines (Qm4):* This is the most prevalent soil type throughout the Project site. The Tahoe glacial deposits are a result of Pleistocene glaciation.
- *Pre-Tahoe Till (Qm5):* This soil type can be found in the northeast area of the Project site. The Tahoe glacial deposits are a result of Pleistocene glaciation.
- *Older Lake Sediments (Qlo):* This soil type is shown as a small area in northern portion of the Project site. The Tahoe glacial deposits are a result of Pleistocene glaciation.

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 four plan areas:

- 119 – Country Club Meadow
- 123 – Meyers Forest
- 124 – Meyers Residential
- 125 – Meyers Commercial and Meyers Community Plan

The majority of the Project area lies in Plan Area 124, representing most of the developed, central portions of the Project area. The primary use of Plan Area 124 is residential at a density of one single family dwelling per parcel. 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 124 found on the TRPA plan area statements:

- TRPA Plan Area: #124
- TRPA Plan Area Statement: Meyers Residential
- Land Use Classification: Residential
- Special Designation: None

Cultural Resources: A cultural resource study, which included a literature search and an archaeological survey/inventory of the Project survey area, was completed on October 7, 2011, and again on June 23 and 24, 2015. Previous cultural resources studies have been conducted in the vicinity of the Project area, including portions of the Area of Potential Effects (APE). Two cultural resources have been recorded within the APE. Significant heritage resources are not present within the APE. Thus, the Project will not impact properties listed on or eligible to the National Register of Historic Places, nor will it impact historic resources that meet the criteria outline in Section 5024.1 of the California Public Resource Code or Section 29 of the TRPA Code of Ordinances. No historic properties will be affected in compliance with Advisory Council on Historic Preservation regulations (36 CFR part 800). 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 September 27, 2011, and then again on June 26 and 29, 2015. The biological

assessment surveys observed no federal or state-listed candidate, or proposed botanical species in the Project study area. However, six recorded occurrence and/or USFS modeled habitat for special status species are located within the 0.5 miles of the Project area: four species have USFS modeled habitat within the Project boundary but were not observed (*Botrychium sp., Lewisia kelloggi ssp. hutchisonii, and kelloggii, and Peltigera hydrothyria*), one species that was also not observed but does have USFS modeled habitat within the 0.5 miles of the Project area (*Arabis rectissima var. simulans*), and one historical species occurrences within the 0.5 miles of the Project area (*Carex limosa*). A noxious weed survey was also conducted within the Project survey area on September 27, 2011, October 26, 2011, and then again on June 26 and 29, 2015. The survey identified two noxious weed species within the Project area: oxeye daisy (*Chrysanthemum leucanthemum*) and cheatgrass (*Bromus tectorum*). A Noxious Weed Mitigation/Eradication Protocol (Protocol) will be implemented by Transportation 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, Transportation 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. Dominant vegetation is primarily Jeffrey pine with a heavy urban influence. Meyers Creek, an intermittent stream, and its associated stream environment zone (SEZ) run along the eastern boundary and eventually connect to the Upper Truckee River to the north. 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 wildlife species on September 27, 2011, and then again on June 26 and 29, 2015. The biological assessment surveys observed no federal or state-listed candidate, or proposed wildlife species in the Project study area. There are no designated sensitive habitats or areas for limited operations for wildlife within the Project area. Suitable habitat conditions do exist within 0.5 miles of the Project area for willow flycatcher, northern goshawk, waterfowl, Sierra Nevada mountain beaver (formerly mountain beaver), mule deer, osprey, Sierra Nevada yellow-legged frog, American badger, and Sierra Nevada snowshoe hare; however, there are only three detections for one special status species at the edge of the project buffer (northern goshawk). An assessment of habitat types is described in depth in Appendix C.

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

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

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

- Carbon dioxide (CO2) accounted for 83.3 percent;
- Methane (CH4) accounted for 6.4 percent;
- Nitrous oxide (N2O) accounted for 6.8 percent; and
- Fluorinated gases (HFCs, PFC, and SF6) accounted for 3.5 percent.

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

<u>Regulatory Setting</u>

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.

<u>Significance Criteria</u>

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. Transportation 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.

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

The thresholds are summarized below:

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

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

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?

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

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

During construction, the Project would temporarily cause direct GHG emissions from the combustion of fossil fuels used to run construction equipment and vehicles, both onsite and offsite. These GHG emissions would be temporary and one-time emissions during the construction of the Project only. Over its lifetime, the Project would directly and indirectly cause negligible GHG emissions from occasional maintenance and personal vehicle use. Therefore, this analysis focuses on construction impacts estimated using 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. Transportation 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, Transportation 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 80 working days

Based on these assumptions, the proposed Project would emit approximately 115 metric tons of CO_2 equivalents.

This estimated amount is negligible in comparison to the statewide inventory of 480,000,000 metric tons discussed above (0.0000003 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 onsite and offsite GHG emissions would terminate following completion construction work, the Project will have a less than significant impact on GHG emissions.

4.0 PUBLIC INPUT AND PDT COORDINATION

The public involvement process for the Project included one public meeting, which was held on January 28, 2016. At the meeting, Transportation provided the public with information on the existing conditions, existing problem areas and the three proposed draft conceptual alternatives. Transportation 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. Transportation received feedback from the public on the Project alternatives that were presented, which helped select the Preferred Project Alternative.

Transportation 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 Regional Water Quality Control Board (RWQCB). The PDT meeting on the Project was held in January 2016. 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 supplied written and verbal comments on the Draft Project Feasibility Report. In February 2016, Transportation produced the Final Project Feasibility Report based on comments received from the PDT and public. These documents were provided to the PDT in March 2016 along with the Preferred Alternative Memorandum (PAM) which outlines the preferred Project.

5.0 RIGHT-OF-WAY REQUIREMENTS

Transportation 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:

034-402-02	034-270-39	034-401-22	033-603-01	034-392-09
034-401-13	033-601-04	034-392-11	033-582-05	034-391-09
034-401-03	033-603-02	034-401-21	034-802-01	034-020-24
034-401-16	034-791-01	034-392-05	034-401-14	033-601-03
034-392-10	034-221-14	034-215-08	034-401-11	033-603-03
034-392-08	034-401-15	034-270-55	034-401-17	033-611-01
034-224-14	034-401-12	033-603-06	034-392-12	034-221-16

United States Forest Service APNs:

034-401-05	034-392-01	034-221-47	034-372-16	033-582-04
034-401-18	034-391-04	034-221-08	034-382-26	033-581-02
034-401-20	034-391-08	081-020-03	034-203-18	033-581-03
034-401-23	034-224-03	034-020-30	034-201-02	034-221-11
034-392-07	034-221-30	034-384-01	034-201-03	034-221-13
034-392-06	034-221-45	034-010-23	034-793-07	033-604-03

6.0 COVERAGE AND PERMIT ISSUES

Clean Water Act Section 404

The fieldwork was conducted for the delineation of Waters of the US, including wetlands, as defined by Section 404 of the Clean Water Act. That fieldwork determined jurisdictional waters and wetlands are present within the Project area. A wetland delineation report was prepared which includes maps that identify the type, location, and size of all Waters of the US within the Project boundary and a Section 404 Permit will be obtained prior to Project construction.

Clean Water Act Section 401

If the Project involves discharge to surface waters, which includes Waters of the US, 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 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 SEZ requires approval from the Lahontan RWQCB. If one acre or more of overall disturbance is slated to occur during construction, which is anticipated, compliance with the NPDES General Construction Permit will be required.

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

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

United States Forest Service - Lake Tahoe Basin Management Unit Special Use Permit

Due to the proposed Project incorporating water quality improvements on thirty (30) USFS-LTBMU parcels, a Special Use Permit will need to be obtained prior to construction of the Project.

7.0 MITIGATION AND MONITORING

Mitigation measures are described in the attached Mitigation Monitoring and Reporting Program (Appendix B). Transportation 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 Transportation 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 Transportation inspections, regulatory agencies will review Project plans and specifications to ensure compliance with local, state, and federal requirements. Any additional mitigation measures required by regulatory agencies will be monitored in the same manner. Throughout the

construction of the Project, the agencies will be invited to weekly “tailgate” meetings and will conduct periodic visits to the Project site to enforce the BMPs and ensure compliance with all other mitigation measures.

The maintenance and monitoring of the Project improvements will continue for 20 years after construction completion. Revegetation monitoring will continue for a minimum of two years following construction. Plant establishment will include irrigation and replanting, if necessary. Transportation will inspect all Project improvements during the spring and fall of each year during the twenty-year maintenance period. Transportation 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. Meyers Stream Environment Zone/ Erosion Control Draft Project Feasibility Report.

County. 2016. Meyers Stream Environment Zone/ Control Project Final Feasibility Report.

County. 2016. Meyers Stream Environment Zone/ Control Project Preferred Alternative Memorandum.

Natural Resources Conservation Service (NRCS). 1974. Soil Survey, Tahoe Basin Area, California and Nevada. U.S. Department of Agriculture, Soil Conservation Service and U.S. Forest Service in cooperation with UC Agricultural Experiment Station and NV Agricultural Experiment Station.

Nichols Consulting Engineers, Inc. (NCE) 2012 and 2015. Botanical Baseline Assessment. Meyers Stream Environment Zone/ Erosion Control Project.

NCE. 2012 and 2015. Fish and Wildlife Baseline Assessment. Meyers Stream Environment Zone/ Control Project.

NCE. 2012 and 2015. Noxious Weed Risk Assessment. Meyers Stream Environment Zone/ Erosion Control Project.

NCE. 2011 and 2015. Delineation of Waters of the United States. Meyers Stream Environment Zone/ Erosion Control Project.

State of California. 2012. California Environmental Quality Act (CEQA) Statute and Guidelines.

State Water Resources Control Board (SWRCB). 1994. State Water Resources Control Board, Stream Environment Zones.

Storm Water Quality Improvement Committee. 2004. Collaborative Storm Water Quality Project Delivery for the Lake Tahoe Basin.

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

TRPA. 2012. Code of Ordinances.

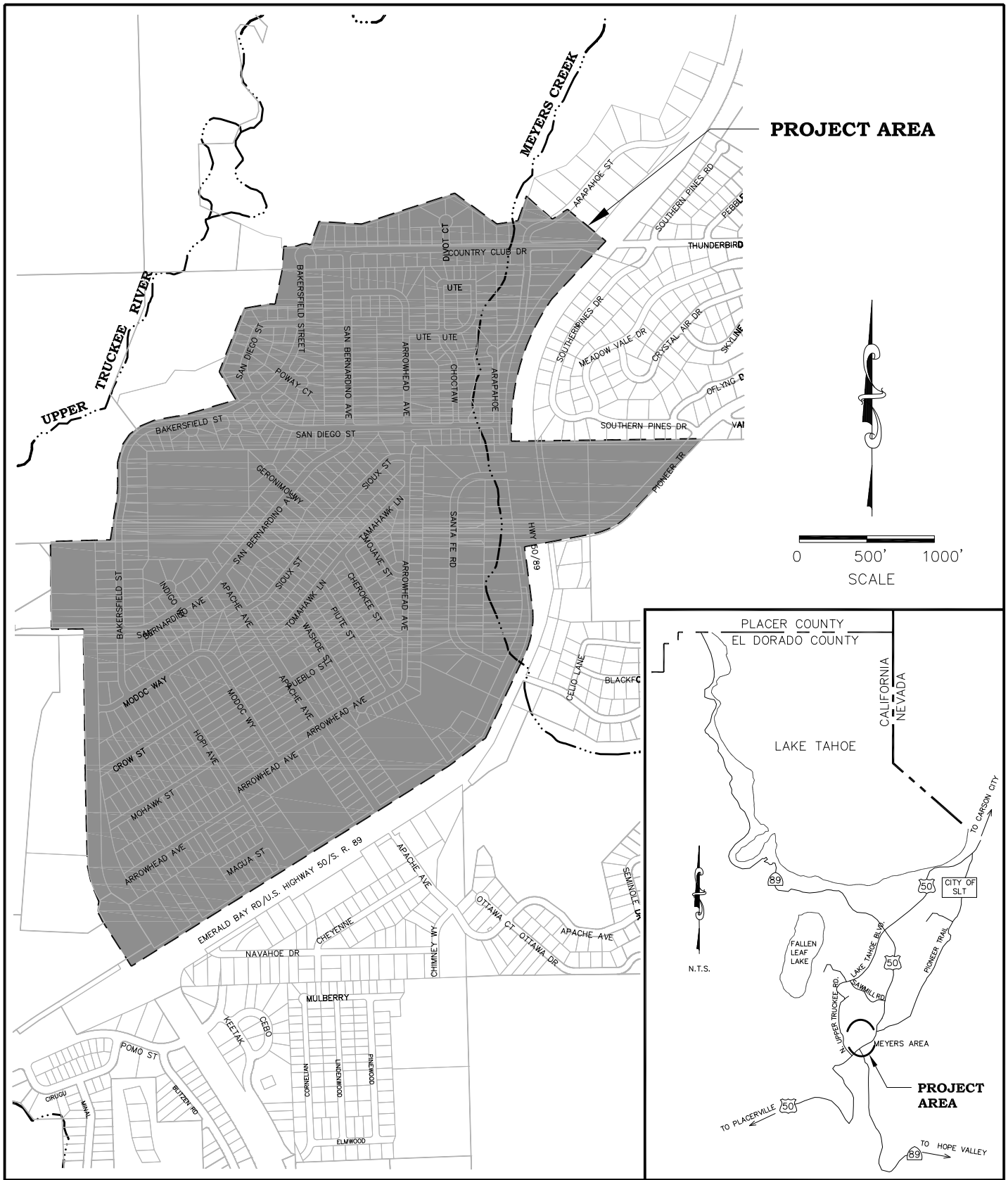
TRPA. 1987. 208 Water Quality Management Plan.

TRPA. 1997. Environmental Improvement Program.

Tahoe Resource Conservation District (TRCD). (October 2007). Soil Characteristics Survey.

Zeier & Associates, LLC. 2015. Heritage Resource Inventory Report. Meyers Erosion Control Project – Expanded Area

FIGURES



COUNTY OF EL DORADO
COMMUNITY DEVELOPMENT AGENCY
TRANSPORTATION DIVISION

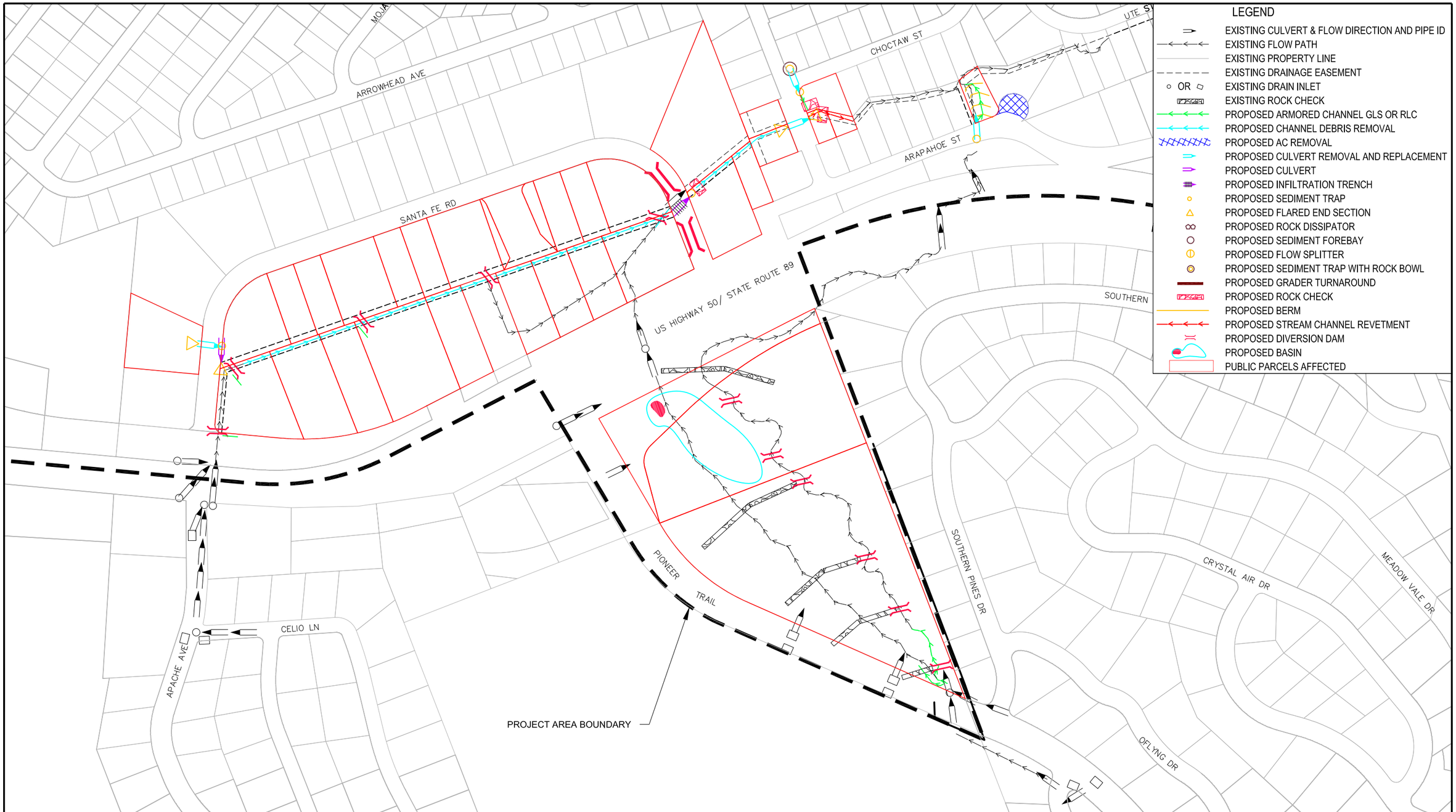
MEYERS STREAM ENVIRONMENT ZONE/
EROSION CONTROL PROJECT

Project Location Map

DATE: 01/16	CIP NO.: 95179	BY: DSP

FIGURE

1



SCALE: 1"=250'

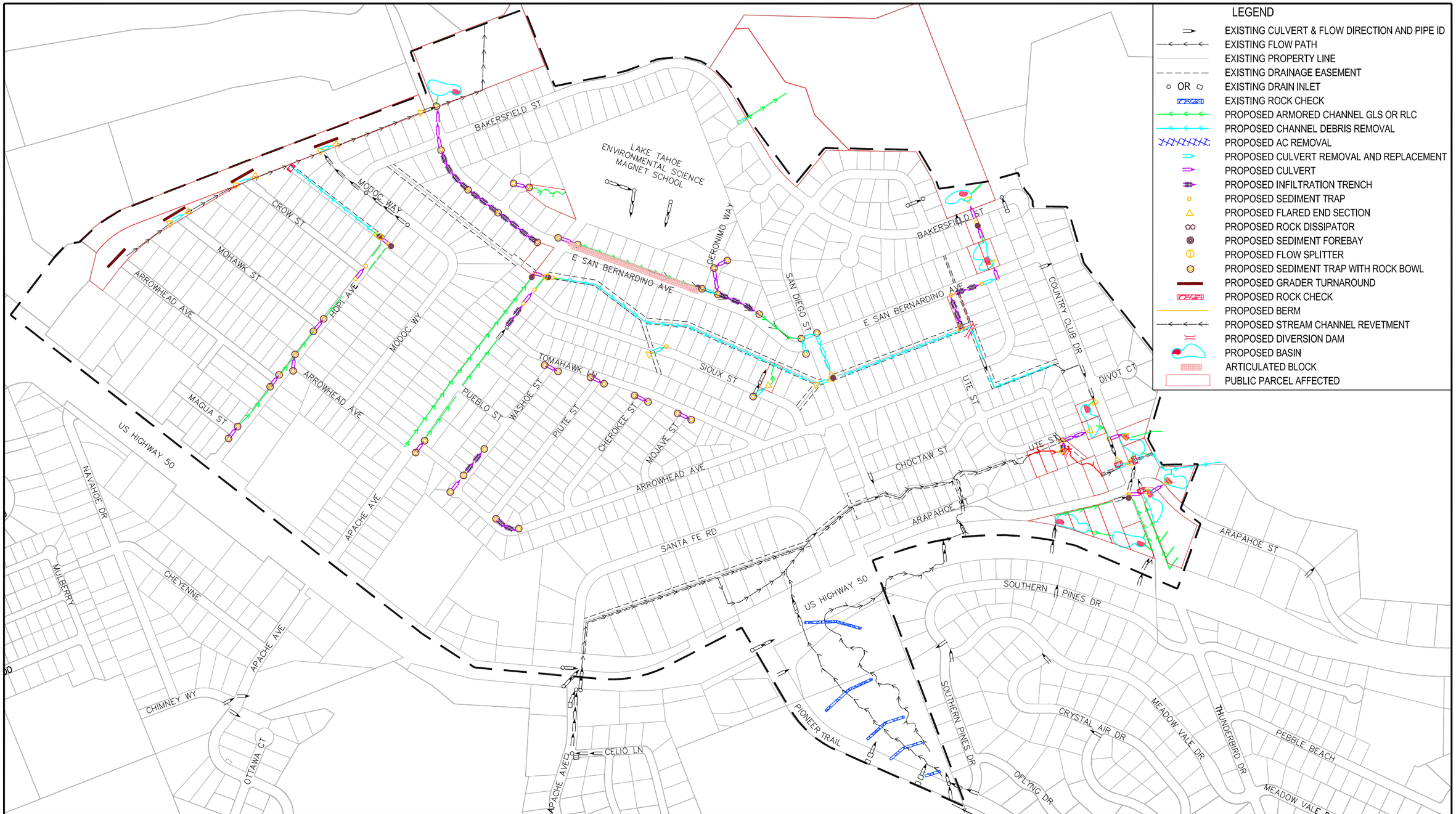
EL DORADO COUNTY CALIFORNIA

COMMUNITY DEVELOPMENT AGENCY
TRANSPORTATION DIVISION
SOUTH LAKE TAHOE OFFICE

MEYERS SEZ/ EC PROJECT
ALTERNATIVE 1

DATE: 2/16	PROJECT NO.: 95179	BY: KIS

FIGURE
2



SCALE: 1"=500'

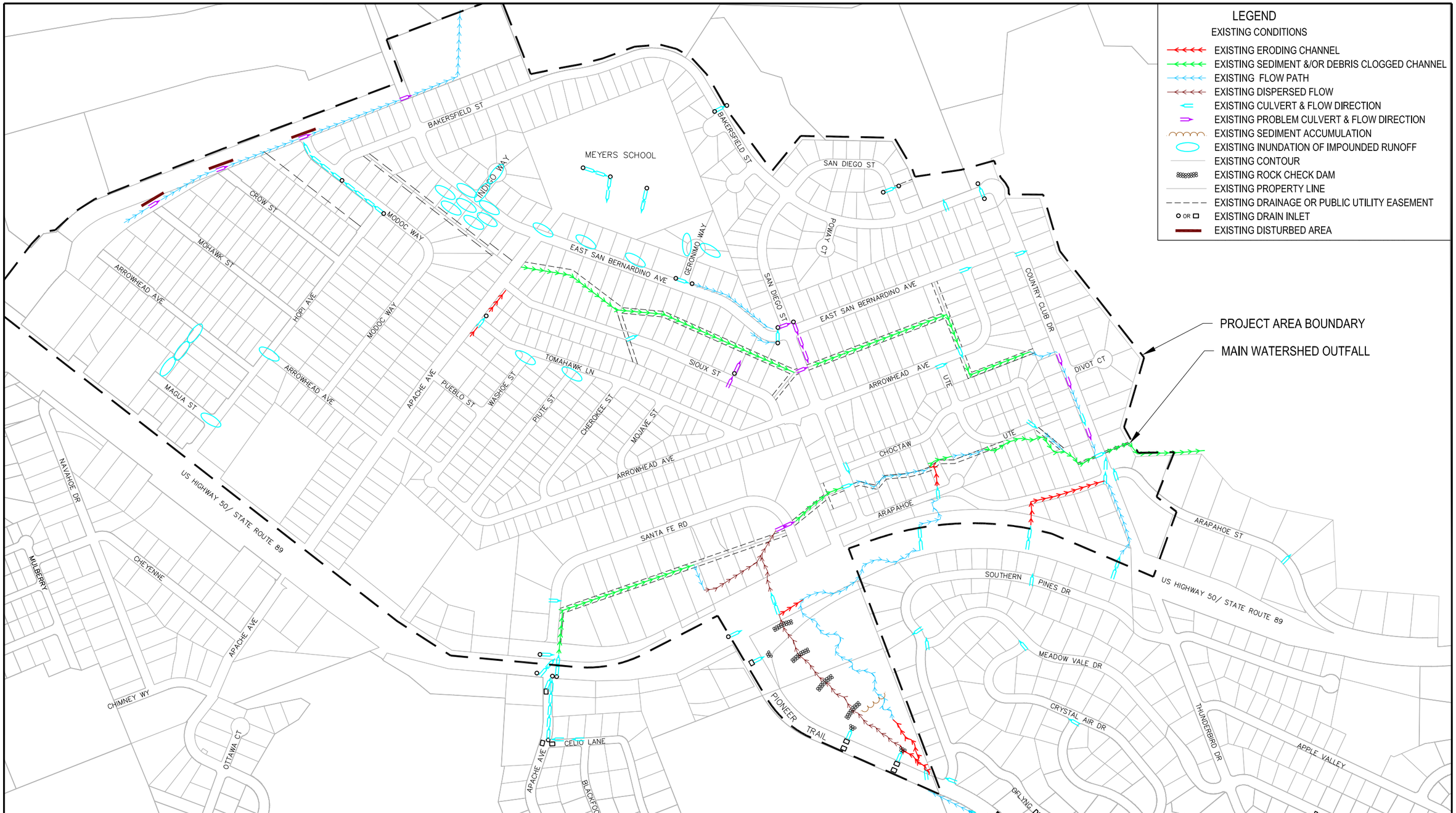
EL DORADO COUNTY CALIFORNIA

COMMUNITY DEVELOPMENT AGENCY
TRANSPORTATION DIVISION
SOUTH LAKE TAHOE OFFICE

MEYERS SEZ/ EC PROJECT
ALTERNATIVE 2

DATE: 6/15	PROJECT NO.: 95179	BY: DSP

FIGURE
3



SCALE: 1"=500'

EL DORADO COUNTY CALIFORNIA

COMMUNITY DEVELOPMENT AGENCY
TRANSPORTATION DIVISION
SOUTH LAKE TAHOE OFFICE

MEYERS SEZ/ EC PROJECT
PROBLEM AREA MAP

DATE: 2/16	PROJECT NO.: 95179	BY: KIS

FIGURE
16

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: Meyers Stream Environment Zone/ Erosion Control Project (CIP No. 95179)	
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 the community of Meyers in South Lake Tahoe. The Project is located in the southern section of the Lake Tahoe Basin in Sections 20, 29 and 30, Township 12 North, Range 18 East, Mount Diablo Meridian. The Project is bordered by the Upper Truckee River on the west and Lake Tahoe Golf Course on the northwest, US Highway/ State Route 89 on the south, and by Pioneer Trail on a small portion to the east. (Figure 1).	
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: Donaldo Palaroan, 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:

a) A brief explanation is required for all answers except 'No Impact' answers that are adequately supported by the information a lead agency following each question. A 'No Impact' answer is adequately supported if the referenced information shows that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A 'No Impact' answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

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

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

d) Mitigated Negative Declaration - Less than Significant with Mitigation: This applies when mitigation measures have been incorporated into a project, which reduced an effect from a potentially significant impact to a less than significant impact. The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII and earlier analyses may be cross-referenced).

e) Earlier analyses may be used where, pursuant to the tiering, programmatic EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or Negative Declaration (Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:

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

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

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

f) Lead agencies are encouraged to incorporate references into the checklist to provide information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

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

h) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

i) The explanation of each issue should identify:

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

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

I. AESTHETICS – Would the project:

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

Item I-A Discussion: Part of the Project area is visible from US Highway 50/ State Route 89 and Pioneer Trail which are all designated Scenic Highways and Corridors within an urban interface environment. The intent of the Project is to improve the quality of the area by stabilizing bare soil areas with native vegetation, restoring/ expanding degraded Stream Environment Zones/ meadows by improving hydrology and riparian vegetation including conifers encroaching in the meadow, enhancing drainage features, and by installing infiltration systems to 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.

Item I-B Discussion: The Project will remove a small number of conifer trees outside of a 100-foot buffer from Scenic US Highway 50/ State Route 89 for fuels management/ fire hazard reduction, to improve forest health of diseased and infested trees, and provide for the successional management of the Stream Environment Zones/

meadow. The Project will not degrade the aesthetic quality due to the significant number of trees within the Project area and the 100-foot tree screening buffer from California Department of Transportation right-of-way adjacent to the Scenic Corridor. No rock outcroppings or historic buildings will be damaged during construction of the proposed Project; therefore, the Project will have a less than significant impact.

Item I-C Discussion: The proposed Project will implement new erosion control and water quality protection measures in the subdivision. Care will be taken in the design and construction of the improvements to integrate them into the natural surroundings. The proposed Project will restore degraded channels, Stream Environment Zones/ meadow habitat, and bare soil areas within the County of El Dorado (County) right-of-way and specified parcels. These erosion control and water quality and habitat restoration improvement measures will increase the visual character and quality of the site. While construction activities may affect the scenic resources during construction, these impacts will be temporary. The proposed Project will not substantially degrade the existing visual character or quality of the site or its surroundings; therefore, the Project will have a less than significant impact.

II. AGRICULTURE AND FOREST RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

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?	☐	☐	☐	☒

Item 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 for construction, fuels management and habitat restoration in relation 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 Project will have a less than significant impact.

Item III-B Mitigation Measures:

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

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

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

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

Mitigation Measure AQ-5: Construction activities shall comply with EDCAQMD Rule 223 - Fugitive Dust, so that emissions do not exceed hourly levels. The contractor will use approved BMPs as outlined in the TRPA

Handbook of Best Management Practices and the EDCAQMD Rule 223 to address fugitive dust. Dust mitigation measures and dust control BMPs will include, but are not limited to, stabilizing unpaved areas subject to vehicular traffic, stabilizing storage piles and disturbed areas, suppressing dust by watering disturbed areas, cleaning all construction vehicles leaving the site, mulching bare soil areas, and ceasing grading and earth moving activities when wind speeds are high enough to result in dust emissions crossing the Project boundary.

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

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

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

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

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

IV. BIOLOGICAL RESOURCES – Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife 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 Wildlife 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?	☐	☐	☒	☐

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Item IV-A Discussion: A *Wildlife Biological Assessment and Biological Evaluation (BABE)* was performed for the proposed Project. The biological assessment surveys observed no federal or state-listed candidate, or proposed wildlife species in the Project study area. There are no designated sensitive habitats or areas for limited operations for wildlife within the Project area. Suitable habitat conditions do exist within 0.5 miles of the Project area for willow flycatcher, northern goshawk, waterfowl, Sierra Nevada mountain beaver (formerly mountain beaver), mule deer, osprey, Sierra Nevada yellow-legged frog, American badger, and Sierra Nevada snowshoe hare; however, there are only three detections for one special status species at the edge of the project buffer (northern goshawk). The primary purpose of the field survey was to identify and determine the occurrence of, or the suitability of, habitat for special status wildlife species within the Project site.

A *Botanical Biological Assessment and Biological Evaluation (BABE)* was also performed for the proposed Project. The biological assessment surveys observed no federal or state-listed candidate, or proposed botanical species in the Project study area. However, six recorded occurrence and/or USFS modeled habitat for special status species are located within the 0.5 miles of the Project area: four species have USFS modeled habitat within the Project boundary but were not observed (*Botrychium sp., Lewisia kelloggi ssp. hutchisonii, and kelloggii, and Peltigera hydrothyria*), one species that was also not observed but does have USFS modeled habitat within the 0.5 miles of the Project area (*Arabis rectissima var. simulans*), and one historical species occurrences within the 0.5 miles of the Project area (*Carex limosa*).

A *Noxious Weed Risk Assessment (NWRA)* was performed for the proposed Project. The surveys indicated that a noxious weed species were known to exist within the Project area. These species includes oxeye daisy (*Chrysanthemum leucanthemum*) and cheatgrass (*Bromus tectorum*). 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 & Wildlife (CDFW) 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, Transportation 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 CDFW (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: Transportation will implement and require the contractor to adhere to a Noxious Weed Mitigation Plan (Plan) to decrease habitat vulnerability to or below pre-construction levels. The Plan includes pre-construction elements such as treatment methodologies for existing noxious weed populations identified in the Project area, as well as operating procedures for both during and post-construction. Recommended BMPs will include, but are not limited to: hand removal of existing weeds prior to going to seed, equipment cleaning prior to use, area of disturbance minimization, disturbed ground stabilization upon completion of construction with mulch or other means, certified weed-free mulch and other materials, and disturbed areas revegetation with native plants.

Item IV-B Discussion: A Land Capability Verification, which delineated sensitive Class 1B (stream environment zone (SEZ)) lands within the Project area, was completed and certified by the TRPA. The Project has been designed to minimize SEZ disturbance.

Item IV-B Mitigation Measures:

Mitigation Measure B-4: Groundwater may be encountered during construction, if groundwater is encountered and the excavated area requires dewatering to complete the work, TRPA and the Lahontan Regional Water Quality Control Board shall be notified immediately to determine the appropriate course of action. The Storm Water Pollution Prevention Plan (SWPPP) for the 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 Waters of the United States (WOUS). Jurisdictional waters and wetlands are present within the Project area. Therefore, Transportation does anticipate the need to obtain a 404 Permit and a 401 Water Quality Certification which will be prepared and submitted based on the final Project design and its potential to discharge to surface waters. Transportation will also obtain a TRPA EIP Project Permit and will implement the required mitigation measures.

Item IV-C Discussion: A Land Capability Verification, which delineated sensitive Class 1B (stream environment zone (SEZ)) lands within the Project area, was completed and certified by the TRPA. The Project has been designed to minimize SEZ disturbance.

Item IV-D Discussion: With the implementation of Mitigation Measures B-1 to B-3 found in Section IV-A above, the proposed Project will not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites; therefore, the Project will have a less than significant impact.

V. CULTURAL RESOURCES – Would the project:

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

Item V-A Discussion: A cultural resources study, which included a literature search and an archaeological survey/inventory in the Project Area of Potential Effect (APE). Most of the proposed area APE has been the subject of previous inventories. Review of those inventories revealed resources have been recorded previously within the immediate Project area. The current inventory resulted in the following observations:

- One historic period archaeological resource was identified within the expanded project area APE.
- A portion of Segment 9 of site 05190001042, part of Old Highway 89, was identified (survey parcel APN 034-270-30). Segment 9 was recorded in 2002 and was found to be accurately described but not mapped correctly. Like the 2002 recording, evaluation of this segment is deferred until the linear resource as a whole, is evaluated.
- A segment of the Lake Valley Telephone Line, site 05190000481, is mapped; however, evidence of such a resource was not identified. As such, it was not evaluated. Individual examples of Comstock or later era high-cut stumps were observed but not recorded.
- Recent (less than 50 years in age) roadside debris was observed but not recorded.

Significant heritage resources are not present within the APE. Thus, the Project will not impact properties listed on or eligible to the National Register of Historic Places, nor will it impact historic resources that meet the criteria outline in Section 5024.1 of the California Public Resource Code or Section 29 of the TRPA Code of Ordinances. No historic properties will be affected in compliance with Advisory Council on Historic Preservation regulations (36 CFR part 800).

Although improbable, it is possible that prehistoric burials might be found in the study area (none were apparent based on an examination of the ground surface). Should human remains be encountered while engaged in construction activities, work must cease in the immediate area and the contractor must immediately report the finding to the State Historic Preservation Office (and USFS representatives, if the find is located on USFS administered lands) and other designated officials. That office will contact the appropriate tribal representatives and consult on disposition of the remains and any associated artifacts.

Item V-A Mitigation Measures:

Mitigation Measure C-1: Typical construction methodologies in the areas of the known cultural sites will be modified in the construction Contract Documents to avoid potential cultural resources. Surface disturbance (clearing, grubbing, grading, leveling, etc.) associated with construction will be kept to a minimum in known cultural areas. Excavation will be limited to material (fill or base material) placed as part of the road's initial construction. Native soil material shall not be excavated in these areas; the areas shall only be cleared, grubbed and compacted.

Mitigation Measure C-2: Project monitoring will occur during construction in areas where previously located cultural resources have been found. If any item of historical significance is found, Project construction shall immediately cease and the California State Historic Preservation Office (SHPO) will be notified. Project construction shall recommence only at the approval of SHPO representatives and the Project manager.

Mitigation Measure C-3: Storm water runoff shall not be directed into the known cultural sites through the construction of culverts, rock lined ditches or other conveyance structures.

Item V-B Discussion: During Project construction, there exists a risk that the Project could cause a substantial adverse change in the significance of an archaeological resource. With the implementation of the mitigation measures outlined in *Item V-A Mitigation Measures*, the Proposed Project will not cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5; therefore, the Project will have a less than significant impact.

VI. GEOLOGY AND 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?	☐	☒	☐	☐

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
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 Project will have a less than significant impact.

Item VI-B Mitigation Measures:

Mitigation Measure G-1: The contractor shall prepare, submit and adhere to a Storm Water Pollution Prevention Plan (SWPPP) to the Transportation, Lahontan Regional Water Quality Control Board (Lahontan), and TRPA prior to construction. The SWPPP shall be in accordance with TRPA and Lahontan requirements for storm water pollution prevention in the Tahoe Basin. As part of the SWPPP, the contractor will be required to prepare and adhere to a Temporary BMP Plan, a Spill Contingency Plan and a Dewatering Plan.

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

The contractor shall limit the areas to be disturbed to the area within the boundary of the construction limit fencing, which shall be designed and installed prior to commencement of construction. The boundary of the construction limit fencing shall be displayed on the Temporary Erosion Control 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 the Transportation, Lahontan, and TRPA prior to commencement of construction. Construction sequencing shall be designed to avoid and minimize the potential of encountering groundwater during construction. However, if groundwater is encountered and the excavated area requires dewatering to complete the work, construction shall immediately cease and TRPA, Lahontan, and Transportation 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: Transportation shall conduct daily inspections of BMPs to ensure they are properly placed and maintained for maximum water quality benefit. As part of this process, Transportation and/or the contractor will complete inspection forms for submittal to regulatory agencies to demonstrate deficiencies and that corrective action has been immediately taken.

VII. GREENHOUSE GAS EMISSIONS – Would the project:

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

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

There currently is no federal, state, or local regulatory guidance for determining whether a project advances or hinders California's GHG reduction goals and no promulgated thresholds of significance for GHG impacts have been established. Therefore, this analysis focuses on construction impacts estimated using the Transportation'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. Transportation 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, Transportation 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 80 working days

Based on these assumptions, the proposed Project would emit approximately 115 metric tons of CO_2 equivalents.

This estimated amount is negligible in comparison to the statewide inventory of 480,000,000 metric tons discussed above (0.0000003 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 to AQ-7 found in Section III above, the proposed Project will not create a substantial amount of greenhouse gas emissions; therefore, the Project will have a less than significant impact.

VIII. HAZARDS AND 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 Project will have a less than significant impact.

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

IX. HYDROLOGY AND 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 Project will have a less than significant impact.

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

X. LAND USE AND 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?	☐	☐	☐	☒

Item 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 124, which has a land use classification of "Residential", with a maximum density of one single family dwelling per parcel. The proposed Project will not impact the land use of the area and is consistent with the existing allowed uses; therefore, the proposed Project will have no impact on land use or planning.

XI. MINERAL RESOURCES – Would the project result in:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

Item 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 Transportation and the TRPA. The TRPA Code of Ordinances states that TRPA-approved construction projects are exempt from the quantitative limits contained in the Noise Ordinance and Community Plan if construction activities take place between the hours of 8:00 a.m. and 6:30 p.m. With the implementation of the mitigation measures outlined below in *Item XII-A Mitigation Measures,* the proposed Project may result in a temporary or periodic exposure to or generation of noise levels in excess of standards established in the local General Plan, Community Plan, or Noise Ordinance, but it will be temporary and is allowable under local ordinances. Therefore, the Project will have a less than significant impact.

Item XII-A Mitigation Measures:

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

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

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

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

XIII. POPULATION AND 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?	☐	☐	☐	☒

Item 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?	☐	☐	☐	☒

Item 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 AND 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?	☐	☐	☐	☒

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☒	☐	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

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

Item XVI-E Mitigation Measures:

Mitigation Measure T-1: The contractor will be required to prepare and adhere to a Traffic Control Plan for TRPA and Transportation 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, Transportation 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?	☐	☐	☐	☒

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation Measures	Less Than Significant Impact	No Impact
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 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 Wildlife	☐ Local Agency Formation Commission (LAFCO)
☐ California Department of Forestry and Fire Protection	☐ National Marine Fisheries Service
☐ California Department of Health Services	☒ Tahoe Regional Planning Agency
☐ California Department of Toxic Substances Control	☒ 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

Donaldo Palaroan, Senior Civil Engineer, El Dorado County

Contributors

Nichols Consulting Engineers, Inc.

Charles Zeier

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

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

Signature_____ Date 03/23/2016

Donaldo Palaroan, County of El Dorado

APPENDIX B:
MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION MONITORING AND REPORTING PROGRAM

PROJECT NAME: MEYERS STREAM ENVIRONMENT ZONE/ 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 Meyers Stream Environment Zone/ 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 MEYERS STREAM ENVIRONMENT ZONE/ 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 AND FOREST 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.	County or its Contractor	County	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.	County or its Contractor	County	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.	County or its Contractor	County	Prior to and During Construction	
Mitigation Measure AQ-4: On-site vehicle speed shall be limited to 15 miles per hour on unpaved surfaces.	County or its Contractor	County	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-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.	County or its Contractor	County	Prior to and During Construction	
Mitigation Measure AQ-6: Construction equipment idling shall be restricted to 5 minutes when not in use.	County or its Contractor	County	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.	County or its Contractor	County	Prior to and During Construction	
BIOLOGICAL RESOURCES- Item IV-A				
Mitigation Measure B-1: Prior to construction, County will confirm if any new special status species have been identified by the USFS-LTBMU or the CA Department of Fish & Wildlife (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.	County or its Consultant	County	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.	County or its Consultant	County	Prior to Construction	

MITIGATION MEASURE	IMPLEMENTING RESPONSIBILITY[1,3]	MONITORING RESPONSIBILITY[2,3]	TIMING AND FREQUENCY	VERIFICATION OF COMPLIANCE (INITIALS/DATE)
Mitigation Measure B-3: County will implement and require the contractor to adhere to a Noxious Weed Mitigation Plan (Plan) to decrease habitat vulnerability to or below pre-construction levels. The Plan includes pre-construction elements such as treatment methodologies for existing noxious weed populations identified in the Project area, as well as operating procedures for both during and post-construction. Recommended BMPs will include, but are not limited to: hand removal of existing weeds prior to going to seed, equipment cleaning prior to use, area of disturbance minimization, disturbed ground stabilization upon completion of construction with mulch or other means, certified weed-free mulch and other materials, and disturbed areas revegetation with native plants.	County or its Consultant	County	Prior to Construction	
BIOLOGICAL RESOURCES - ITEM IV-B				
Mitigation Measure B-4: Groundwater may 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 (Lahontan) 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.	County or its Consultant	County	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 WOUS. Therefore, County does anticipate the need to obtain a 404 Permit and a 401 Water Quality Certification. County will also obtain a TRPA EIP Project Permit and will implement the required mitigation measures.	County or its Consultant	County	Prior to and During Construction	
CULTURAL RESOURCES - ITEM V-A				
Mitigation Measure C-1: Typical construction methodologies in the areas of the known cultural sites will be modified in the construction Contract Documents to avoid potential cultural resources. Surface disturbance (clearing, grubbing, grading, leveling, etc.) associated with construction will be kept to a minimum in known cultural areas. Excavation will be limited to material (fill or base material) placed as part of the road's initial construction. Native soil material shall not be excavated in these areas; the areas shall only be cleared, grubbed and	County or its Consultant	County	Prior to Construction	

MITIGATION MEASURE	IMPLEMENTING RESPONSIBILITY[1,3]	MONITORING RESPONSIBILITY[2,3]	TIMING AND FREQUENCY	VERIFICATION OF COMPLIANCE (INITIALS/DATE)
compacted.				
Mitigation Measure C-2: Project monitoring will occur during construction in areas where previously located cultural resources have been found. If any item of historical significance is found, Project construction shall immediately cease and the California State Historic Preservation Office (SHPO) will be notified. Project construction shall recommence only at the approval of SHPO representatives and the Project manager.	County or its Consultant	County	Prior to Construction	
Mitigation Measure C-3: Storm water runoff shall not be directed into the known cultural sites through the construction of culverts, rock lined ditches or other conveyance structures.	County or its Consultant	County	Prior to Construction	
GEOLOGY AND SOILS - Item VI-B				
Mitigation Measure G-1: The contractor shall prepare, submit and adhere to a Storm Water Pollution Prevention Plan (SWPPP) to County, Lahontan Regional Water Quality Control Board (Lahontan), and TRPA prior to construction. The SWPPP shall be in accordance with the TRPA and Lahontan requirements for storm water pollution prevention in the Tahoe Basin. As part of the SWPPP, the contractor will be required to prepare and adhere to a Temporary BMP Plan, a Spill Contingency Plan, and a Dewatering Plan. The Temporary BMP Plan will include design and specifications that detail the required construction BMPs that shall be installed prior to and during construction to prevent any erosion that may occur during a rain or wind event. All temporary BMPs shall be installed and maintained per TRPA's Handbook of Best Management Practices. Temporary BMPs will include, but are not limited to: gravel bags, silt fencing, tree protection fencing, construction limit fencing, coir logs, visqueen and gravel construction access. Prior to construction, all storage, access, and staging areas shall be secured by the contractor and approved by County, Lahontan and TRPA. No staging or storage will occur in Stream Environment Zones (SEZs). The contractor shall be responsible for maintenance of mobilization sites, including placement and maintenance of BMPs. All equipment, vehicles, and materials shall be stored on paved or previously disturbed surfaces only; in locations approved by County, Lahontan and TRPA.	County and its Contractor	County	Prior to and During Construction	

MITIGATION MEASURE	IMPLEMENTING RESPONSIBILITY[1,3]	MONITORING RESPONSIBILITY[2,3]	TIMING AND FREQUENCY	VERIFICATION OF COMPLIANCE (INITIALS/DATE)
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. 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 County, Lahontan and TRPA prior to commencement of construction. Construction sequencing shall be designed to avoid and minimize the potential of encountering groundwater during construction, however if groundwater is encountered and the excavated area requires dewatering to complete the work, construction shall immediately cease and TRPA, Lahontan and County shall be notified immediately to observe the construction work to ensure that the approved dewatering plan is being adhere to and that dewatering effluent is properly contained and disposed of.				

MITIGATION MEASURE	IMPLEMENTING RESPONSIBILITY[1,3]	MONITORING RESPONSIBILITY[2,3]	TIMING AND FREQUENCY	VERIFICATION OF COMPLIANCE (INITIALS/DATE)
Based on the results of the Soils/Hydrology Analysis, which is performed by TRPA prior to construction, dewatering areas will be better identified to avoid and reduce the potential of groundwater interception.				
Mitigation Measure G-2: The contractor shall attend the TRPA pre-grade onsite inspection meeting to ensure that proper BMPs are in place per the SWPPP and that all permit conditions have been met prior to commencement of construction.	County and its Contractor	County	Prior to and During Construction	
Mitigation Measure G-3: County 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, County 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.	County and its Contractor	County	Prior to and During Construction	
GREENHOUSE GAS EMISSIONS - Item VII-A				
Mitigation Measure: Implement Mitigation Measures identified under Item III-B Mitigation Measures.	County or its Contractor	County	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.	County or its Contractor	County	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.	County or its Contractor	County	Prior to and During Construction	
LAND USE AND PLANNING				
No mitigation measures required.				

MITIGATION MEASURE	IMPLEMENTING RESPONSIBILITY[1,3]	MONITORING RESPONSIBILITY[2,3]	TIMING AND FREQUENCY	VERIFICATION OF COMPLIANCE (INITIALS/DATE)
MINERAL RESOURCES				
No mitigation measures required.				
NOISE - Item XII-A and Item XII-D				
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.	County or its Contractor	County	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. County will advise potentially affected residents of the proposed construction activities including duration, schedule of activities, and contacts for filing noise complaints. County staff and/or contractor shall respond to all noise complaints received within one working day and resolve the issue within two working days.	County or its Contractor	County	Prior to and During Construction	
POPULATION AND HOUSING				
No mitigation measures required.				
PUBLIC SERVICES				
No mitigation measures required.				
RECREATION				
No mitigation measures required.				
TRANSPORTATION AND TRAFFIC - Item XVI-E				
Mitigation Measure T-1: The contractor will be required to prepare and adhere to a Traffic Control Plan for TRPA and County review and approval. Elements of the plan will include appropriate use of signage, flaggers, traffic calming, and alternative routes to accommodate local and through traffic. In addition, County 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	County	County	Prior to and During Construction	

MITIGATION MEASURE	IMPLEMENTING RESPONSIBILITY[1,3]	MONITORING RESPONSIBILITY[2,3]	TIMING AND FREQUENCY	VERIFICATION OF COMPLIANCE (INITIALS/DATE)
time, for local residents, school buses or emergency vehicles.				
UTILITIES AND SERVICE SYSTEMS - Item XVI-C				
Mitigation Measure: Implement Mitigation Measures identified under Item VI-B Mitigation Measures.	County or its Contractor	County	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: County : El Dorado County, Community Development Agency, Transportation Division

APPENDIX C:
PLANT, NOXIOUS WEED, AND WILDLIFE TABLES

Table C-1.1. Meyers Stream Environment Zone/ Erosion Control Project - Special Status Plant 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		S	SI	1B.2	Broad-leaved upland forests, upper montane coniferous forests on rocky substrates. Known in CA from only two occurrences near Martis Peak and in NV from eleven occurrences in the Carson Range. Elevation range 7,398 to 8,398 feet.	August	**Unlikely.** Outside of elevation range and site lacks suitable habitat.
Arabis rectissima* var. *simulans Washoe Trail or Tall rockcress		LSI			Jeffrey pine-fir forest on gentle slopes, in gently disturbed areas, on sandy granitic or andesitic soil. The elevation range is from 7,021 to 10,020 feet.	June to July	**Potential.** May occur as it has USFS modeled habitat outside the Project boundary but within the buffer zone; it was not encountered during surveys.
Arabis tiehmii Tiehm's rockcress		S		1B.3	High elevation meta-volcanic or decomposed granite ridges and steep slopes. Elevation range 9,745 to 11,775 feet.	July to August	**Unlikely.** Outside of elevation range and site lacks suitable habitat.
Boechera tularensis Tulare rockcress				1B.3	Perennial herb that prefers rocky slopes, subalpine coniferous forest, and upper montane coniferous forest. Elevation range is from 6,000 to 11,000 feet.	June to July	**Potential.** May occur. Not encountered.
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		S		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 as it has USFS modeled within the Project area however it was not encountered.
Botrychium crenulatum Scalloped moonwort		S		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 Slender moonwort		S		1B.1	Wet or moist soils in upper montane coniferous forests, such as along the edges of lakes and streams. Elevation range from sea level to 10,640 feet.	Fronds mature June to September	**Potential.** May occur. Not encountered.

Species	Regulatory Status				Habitat Requirements	Identification Period	Potential for Occurrence in the Project Area and Results of Survey
	Federal	LTBMU	TRPA	CNPS/ CA			
Botrychium lunaria Common moonwort		S		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		S		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		S		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		S		4.2	Meadows in mixed conifer and subalpine communities, streams and wet meadows, from 5,577 to 9,186 feet.	Moss	**Potential.** May occur. Not encountered.
Chaenactis douglasii var. alpina Alpine dusty maidens				2B.3	Perennial herb that prefers alpine boulder and granitic rock fields. Elevation ranges from 9,800 to 11,150 feet.	July to September	**Unlikely.** Outside of elevation range and site lacks suitable habitat.
Carex davyi Davy's sedge				1B.3	Perennial herb that prefers subalpine and upper montane coniferous forests between 5,000 to 10,500 feet.	May to August	**Unlikely.** Site lacks suitable habitat.
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	**Unlikely.** Site lacks suitable habitat.
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	**Potential.** May occur as it has USFS modeled habitat outside the Project boundary but within the buffer zone; it was not encountered during surveys.
Dendrocollybia racemosa Branched collybia		S			Grows on decayed, blackened mushrooms or coniferous duff, usually within old growth stands.	Fall and Winter	**Unlikely.** Site lacks suitable habitat.

Species	Regulatory Status				Habitat Requirements	Identification Period	Potential for Occurrence in the Project Area and Results of Survey
	Federal	LTBMU	TRPA	CNPS/ CA			
Draba asterophora* var. *asterophora Tahoe draba		S	SI	1B.2	Alpine boulder and rock fields in crevices, and open talus slopes of decomposed granite in subalpine coniferous forests. Elevation range 8,325 to 11,670 feet.	July to September	**Unlikely.** Outside of elevation range.
Draba asterophora* var. *macrocarpa Cup Lake draba		S	SI	1B.1	Alpine boulder and rock fields in shade of granitic rocks in subalpine coniferous forest. Elevation range 8,202 to 9,235 feet.	July to August	**Unlikely.** Outside of elevation range and site lacks suitable habitat.
Epilobium howellii Subalpine fireweed		S		4.3	Meadows and seeps in upper montane coniferous forests. Elevation range 6,600 to 8,910 feet.	July to August	**Unlikely.** Outside of elevation range 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	**Unlikely.** Site lacks undisturbed suitable habitat.
Epilobium palustre Marsh willowherb				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		S		1B.3	Rocky outcrops in upper montane coniferous forests. Elevation range 6,072 to 8,646 feet.	Blooms June to October	**Unlikely.** Site lacks undisturbed suitable habitat.
Eriogonum umbellatum* var. *torreyanum Torrey's buckwheat		S		1B.2	Meadows and seeps, upper montane coniferous forests; volcanic, rocky soils. Elevation range 6,121 to 8,646 feet.	July to September	**Potential.** May occur. No known occurrences in LTMBU. Not encountered.
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		S		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		S		1B.2	Lower and upper montane coniferous forests. Granitic or volcanic, sandy, or gravelly substrate. Elevation range 4,950 to 10,560 feet.	Blooms May to August	**Potential.** May occur. Not encountered.

Species	Regulatory Status				Habitat Requirements	Identification Period	Potential for Occurrence in the Project Area and Results of Survey
	Federal	LTBMU	TRPA	CNPS/ CA			
Lewisia kelloggii* ssp. *hutchisonii Hutchison's lewisia		S		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	**Potential.** May occur as it has USFS modeled habitat within Project area; however, it was not encountered.
Lewisia kelloggii* ssp. *kelloggii Kellogg's lewisia		S		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	**Potential.** May occur as it has USFS modeled habitat within Project area; however, it was not encountered.
Lewisia longipetala Long-petaled lewisia		S	SI	1B.3	Alpine boulder and rock fields in subalpine coniferous forests. Elevation range 8,325 to 9,740 feet.	June to August	**Unlikely**. Outside of elevation range.
Meesia longiseta Meesia moss		LSI		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		S		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		S		2.2	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		LSI		2B.3	Shaded, damp cliffs and in crevices or on ledges, usually growing among other bryophytes or as small, pure patches on base-rich soil among rocks, or in crevices on mountains. Occurring from sea-level to subalpine areas.	Moss	**Unlikely.** Site lacks undisturbed suitable habitat.
Orthotrichum praemorsum Orthotrichum moss		LSI			Shaded, moist habitats of Eastside Sierra Nevada. Rock outcrops up to 8,200 feet.	Moss	**Unlikely.** Site lacks suitable habitat.
Orthotrichum shevockii Shevrock's moss		LSI		1B.3	Dry granitic rock outcrops in Carson Range, Douglas, and Carson City counties.	Moss	**Unlikely.** Site lacks suitable habitat and is outside of known range.
Orthotrichum spjutii Spjut's bristle-moss		LSI		1B.3	Continually misted, shaded granitic rock faces at high elevations.	Moss	**Unlikely.** Site lacks suitable habitat.

Species	Regulatory Status				Habitat Requirements	Identification Period	Potential for Occurrence in the Project Area and Results of Survey
	Federal	LTBMU	TRPA	CNPS/ CA			
Peltigera hydrothyria Veined water lichen		S			Mixed coniferous forests, bogs, fens, wet meadows, seeps, and clear, cold streams. Elevation range 4,000 to 8,000 feet.	Lichen	**Potential.** May occur as it has USFS modeled habitat within Project area; however, it was not encountered.
Pohlia tundrae Tundra thread moss		LSI		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.
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	**Unlikely.** May occur. Not encountered.
Rorippa subumbellata Tahoe yellow cress	FCE	S	SI	1B.1/ SE	Shoreline supporting decomposed granitic soils; known only from the shoreline of Lake Tahoe. Elevation range 6,210 to 6,230 feet.	Blooms May to September	**Unlikely.** Outside of elevation range and 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	**Potential.** May occur. Not encountered.
Sphagnum species Sphagnum species		LSI			Usually in fens and bogs, sometimes in very wet, non-acidic habitats that remains saturated.	Moss	**Unlikely.** Site lacks suitable habitat.
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	**Unlikely.** Site lacks suitable habitat.

Federally Listed Species (Federal):	**Tahoe Regional Planning Agency (TRPA):**	**California Native Plant Society (CNPS) List Categories:**
FE = Federally Endangered	SI = TRPA Special Interest Species	1A = Plants presumed extinct in California
FT = Federally Threatened		1B = Plants rare, threatened, or endangered in California and elsewhere
FD = Federally Delisted	**USFS – Lake Tahoe Basin Management Unit Species (LTBMU):**	
PT = Proposed Threatened	S = USFS Sensitive Species	2 = Plants rare, threatened or endangered in California, but common elsewhere
FCE = Federally Endangered Candidate	LSI = USFS Species of Interest	3 = Plants about which we need more information
FPD = Proposed for Delisting		4 = Plants of limited distribution
	California State Listed Species (CA):	**CNPS Threat Code Extensions:**
	SE = State Endangered	.1 = Seriously endangered in California (Over 80% of occurrences threatened)
	ST = State Threatened	
	SR = State Rare	.2 = Fairly endangered in California (20-80% occurrences threatened)
	SC = State Candidate	.3 = Not very endangered in California (<20% of occurrences threatened)

Table C-1.2. Meyers Stream Environment Zone/ Erosion Control Project - Invasive and Noxious Weed Plant Species List and Habitat Analysis

Common Name	Scientific Name	LTBWCG	CDFA	NDA	SNFPA	Cal-IPC	Species Present? Y or N	If Present, Gross Area of the Infestation (acres)
Tree of heaven	*Ailanthus altissima*	Group 1b	C			Moderate	N	
Cheatgrass	*Bromus tectorum*				P		Y	0.33
Hoary cress	*Cardaria draba*	Group 1b	B	C			N	
Globe-prodded hoary cress	*Cardaria pubescens*	Group 1b	B				N	
Plumeless thistle	*Carduus acanthoides*		A		NW	Limited	N	
Musk thistle	*Carduus nutans*	Group 1a	A	B	P	Moderate	N	
Purple starthistle	*Centaurea calcitrapa*	Group 1a	B	A	NW	Moderate	N	
Diffuse knapweed	*Centaurea diffusa*	Group 1b	A	B	P	Moderate	N	
Spotted knapweed	*Centaurea maculosa*	Group 2	A	A	N	High	N	
Russian knapweed	*Centaurea repens*	Group 1b	B	B			N	
Yellow starthistle	*Centaurea solstitialis*	Group 1b	C	A		High	N	
Squarrose knapweed	*Centaurea squarrosa*		A	A			N	
Rush skeletonweed	*Chondrilla juncea*	Group 1b	A	A		Moderate	N	
Oxeye daisy	*Chrysanthemum leucanthemum*	Group 2				Moderate	N	
Canada thistle	*Cirsium arvense*	Group 1b	B	C		Moderate	N	
Bull thistle	*Cirsium vulgare*	Group 2	C		P	Moderate	N	
Poison hemlock	*Conium maculatum*			C		Moderate	N	
Field bindweed	*Convolvulus arvensis*		C				N	
Bearded creeper	*Crupina vulgaris*		A	A	P		N	
Scotchbroom	*Cytisus scoparius*	Group 2	C		P	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	P		N	
Dyer's woad	*Isatis tinctoria*	Group 1a	B	A		Moderate	N	
Tall whitetop / Perennial pepperweed	*Lepidium latifolium*	Group 2	B	C	P	High	N	
Dalmatian toadflax	*Linaria genistifolia* spp. *dalmatica*	Group 2	A	A	P	Moderate	N	
Yellow toadflax	*Linaria vulgaris*	Group 2		A		Moderate	N	
Purple loosestrife	*Lythrum salicaria*	Group 1b	B	A			N	

Common Name	Scientific Name	LTBWCG	CDFA	NDA	SNFPA	Cal-IPC	Species Present? Y or N	If Present, Gross Area of the Infestation (acres)
Eurasian watermilfoil	*Myriophyllum spicatum*	Group 2		A	N	High	N	
Scotch thistle	*Onopordum acanthium*	Group 1a	A	B	P	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			N	
Puncture vine	*Tribulus terrestris*		C	C	P		N	

Table C-2.1. Meyers Stream Environment Zone/ Erosion Control Project - Special Status Wildlife Species

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
		CESA (CA)	CDFW (CA)				
Amphibians							
Sierra Nevada yellow-legged frog[1] *Rana sierrae*	FE	SE		S	No	No	**Not expected to occur**. The only location in the Tahoe Basin where Sierra Nevada yellow-legged frog has been consistently detected is at the headwaters of Trout Creek (USDA 2008). The creek that runs through the Project area flows intermittently and the highly developed residential communities offer little opportunity for breeding.
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 intermittent creek that runs through the Project area passes through highly developed residential communities that offer little opportunity for breeding.
Yosemite toad[3] *Anaxyrus canorus*	FT		SSC		No	No	**Not expected to occur.** Outside of the known range.
Birds							
American peregrine falcon *Falco peregrinus 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. In addition, this species is not known to occur in the project area.

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

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
		CESA (CA)	CDFW (CA)				
Bald eagle *Haliaeetus leucocephalus*	DL (8/07)	SE	FP	TRPA S	No	No	**Not expected to occur. No Potential to Impact TRPA Threshold Standard**. There are no TRPA designated perch sites within or adjacent to the Project area. Locally, the only known nesting sites are near Emerald Bay and Marlette Lake. Wintering sites are located in Taylor, Tallac, Pope, and Upper Truckee Marshes (Romsos 2000).
California spotted owl *Strix occidentalis occidentalis*			SSC	S	No	No	**Not expected to occur.** Suitable habitat does not exist in the Project area, and this species is not known to occur in the Project area. Additionally, USFS surveys have been conducted between 2010-2013 with no detections reported.
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 fragmented.
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.
Northern goshawk *Accipiter gentilis*			SSC	S TRPA	Yes	Yes	**Low. No Potential to Impact TRPA Threshold Standard.** Documented detections are just under 0.5 miles from the Project area. No historic nests and the associated Disturbance Zones are located within 0.5miles of the area. This species may pass through the Project area while foraging, but it is not likely to nest within or directly adjacent to an urban area.
Osprey *Pandion haliaetus*			WL	TRPA	Yes	Yes	**Moderate. No Potential to Impact TRPA Threshold Standard.** Osprey could pass through the Project area, but suitable breeding habitat is not present in the Project vicinity.

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
		CESA (CA)	CDFW (CA)				
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, but is found within 0.5 miles along Osgood Creek. Waterfowl may use the area to forage, but existing disturbances lack suitable habitat make it unlikely they would nest in the Project area.
Willow flycatcher *Empidonax traillii*		SE		S	Yes	Yes	**Low.** The willow flycatcher has very distinct habitat requirements that dictate meadow size, vegetation type, height, and access to water. There is a documented nest 0.25 miles west of the Project along Osgood Creek, but no suitable habitat has been identified within the Project area.
Mammals							
American marten *Martes americana*				S	No	No	**Not expected to occur.** Habitat requirements for cover, breeding, and foraging are lacking within the Project area.
California wolverine *Gulo gulo luteus*		ST	FP	S	No	No	**Not expected to occur.** Suitable alpine habitat is not present in the Project area. There are very few documented occurrences in the region.
Sierra Nevada mountain beaver[4] *Aplodontia rufa californica*			SSC		No	No	**Low.** Riparian habitat is present outside of the Project area along Osgood Creek and Upper Truckee River; however, high levels of disturbance and a lack of optimal habitat conditions make it unlikely this species would occur within the Project area.
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 disturbance levels.

[4] Formerly mountain beaver, Aplodontia rufa

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
		CESA (CA)	CDFW (CA)				
Sierra Nevada showshoe hare *Lepus americanus tahoensis*			SSC		No*	Yes	**Moderate.** *Although not documented occurrences were found in the background research, it is highly probable that this species occurs within the project buffer.
MFisher (West Coast DPS) *Pekania pennanti*	Proposed Threatened	SCT	SSC		No	No.	**Not expected to occur.** Appropriate riparian habitat for denning and foraging is not present.
Sierra Nevada red fox *Vulpes vulpes necator*		ST			No	No	**Not expected to occur.** Appropriate riparian habitat for denning and foraging is not present. Presumed extirpated from the Tahoe Basin (Schlesinger and Romsos 2000).
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 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.
Townsend's big ear bat *Corynorhinus townsendii*			SSC	S	No	No	**Not expected to occur.** There are few occurrences of this species in the Tahoe Basin, and they are not known to occur in the project area. This species is vulnerable to disturbance, so it is not likely they would roost within the highly impacted project area. Because roosting sites (undisturbed caves or cave surrogates) are the most important limiting resource for Townsend's big ear bat (Zeiner et al. 1990), their occurrence in the project area is unlikely.

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
		CESA (CA)	CDFW (CA)				
Fringed Myotis *Myotis thysanodes*				S			**Low.** This species has not been studied extensively in the Lake Tahoe Basin so habitat use/models are vague. This species has been found day and night roosting in mines, caves, trees, and buildings. They are found in a wide range of habitats from low desert scrub to high elevation coniferous forests. The USFS is conducting their own surveys and reporting for LTBMU species on USFS land and will advise the County on necessary mitigation measures that may be required.
Fish							
Lahontan cutthroat trout *Oncorhynchus clarkii henshawi*	FT			TRPA	No	No	**Not expected to occur.** The LTBMU "Currently Occupied Lahontan Cutthroat Trout Habitat Map" produced 6/19/2009 (USDA 2009) does not show any streams or Lake area 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.
Aquatic Invertebrates							
Great Basin rams-horn *Helisoma newberryi newberryi*				S	No	No	**Not expected to occur.** Suitable habitat does not exist within or adjacent to the Project area.
Lake Tahoe benthic stonefly *Capnia lacustra*					No	No	**Not expected to occur.** Suitable habitat has been mapped for Lake Tahoe; however, project improvements are not expected to occur in this area.

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
		CESA (CA)	CDFW (CA)				
Insects							
Western bumble bee *Bombus occidentalis*				S	Most likely	Yes	**High.** The Project area falls within bumble bee range and habitat. The USFS is conducting their own surveys and reporting for LTBMU species on USFS land and will advise the County on necessary mitigation measures that may be required.

+ Special Status Codes
FE = Federally Endangered under 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, TRPA2015, TRPA 2010, USDA 2015, and USFWS 2015

Table C-2.2. Birds Observed in the Meyers Stream Environment Zone/ Erosion Control Project Area

Common Name	Scientific Name
Birds	
American Robin	*Turdus migratorius*
Brewer's blackbird	*Euphagus cyanocephalus*
Brown creeper	*Certhia americana*
Common raven	*Corvus corax*
Dark-eyed junco	*Junco hyemalis*
Evening grosbreak	*Coccothraustes vespertinus*
Mountain chickadee	*Poecile gambeli*
Northern flicker	*Colaptes auratus*
Pygmy nuthatch	*Sitta pygmaea*
Pine grosbreak	*Pinicola enucleator*
Red-breasted nuthatch	*Sitta canadensis*
Steller's jay	*Cyanocitta stelleri*
Townsend's solitaire	*Myadestes townsendi*

Table C-2.3. Mammals and Other Wildlife Observed in the Meyers Stream Environment Zone/ Erosion Control Project Area

Common Name	Scientific Name
Mammals	
California ground squirrel	*Spermophilus beecheyi*
Chipmunk spp.	*Tamias spp.*
Douglas squirrel	*Tamiasciurus douglasii*
Western grey squirrel	*Sciurus griseus*