SCH# _____
03-PLA-267
EA 1C9710 KP 14.0/15.9 (PM 8.7/9.9)

Water Quality Improvement and Roadway Rehabilitation Project

Initial Study with Proposed Negative Declaration State Route 267

Placer County, California
District 3 – PLA – 267 – KP14.0/15.9 (PM 8.7/9.9)
Stewart Way to State Route 28/267 Junction
EA 1C9710

Submitted Pursuant to: (State) Division 13, California Public Resources Code

Prepared by THE STATE OF CALIFORNIA
Department of Transportation

March 2006

Caltrans

General Information About This Document

What's in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts of alternatives being considered for the proposed project located in Placer County, California. The document describes why the project is being proposed, alternatives for the project, the existing environment that could be affected by the project, and potential impacts from each of the alternatives, and the proposed avoidance, minimization and/or mitigation measures.

What should you do:

Please read this Initial Study, additional copies of this document as well as the technical studies are available for review at the Caltrans district office located at 2800 Gateway Oaks Drive.

We welcome your comments. If you have any concerns regarding the proposed project, send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to Caltrans at the following address:

Jody Brown, Chief
Office of Environmental Management, Sacramento S-3
California Department of Transportation
2800 Gateway Oaks Drive, 2nd floor
Sacramento, CA 95833

Submit comments via email to: Jody_Brown@dot.ca.gov

Submit comments by the deadline: May 18, 2006 .

What happens next:

After comments are received from the public and reviewing agencies, Caltrans and the Federal Highway Administration may 1) give environmental approval to the proposed project, 2) do additional environmental studies, or 3) abandon the project. If the project is given environmental approval and funding is appropriate, Caltrans could design and construct all or part of the project.

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Jody Brown, Office of Environmental Management S-3, 2800 Gateway Oaks Drive, 2nd floor, Sacramento, CA 95833; (916) 274-5908 Voice, or use the California Relay Services TTY number, 1 (800) 735-2929.

Water Quality Improvement and

Roadway Rehabilitation Project

State Route 267

Negative Declaration

THE STATE OF CALIFORNIA
Department of Transportation (Caltrans)-District 3
Tahoe Regional Planning Agency (TRPA)

_____
Date of Approval

_____
John D. Webb

Chief
North Region Office of Environmental Services
California Department of Transportation

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Chapter 1 Project Description

Introduction

The California Department of Transportation (Caltrans) is proposing a water quality and roadway rehabilitation project located on State Route (Route) 267 along a 1.9-km (1.2-mi) section from Stewart Way to the State Route 28/267 junction (post miles [PM] 8.70 to 9.90 [kilo-posts 14.0 to 15.9]) in Placer County, California (Figure 1). This Initial Study (IS) was prepared to evaluate potential environmental impacts of the Proposed Project. A Categorical Exclusion will be prepared to evaluate potential environmental impacts pursuant to NEPA. This project was initiated to address water quality issues in the Lake Tahoe Basin and proposes to provide water quality drainage improvements, Class II bike lanes, and other related improvements on State Route 267 from Stewart Way to the State Route 28/267 junction (Figure 2).

State Route 267 is the primary route for traffic between Truckee, California, and the north shore of Lake Tahoe. The segment of State Route 267 within the Proposed Project is a two-lane conventional highway. The existing roadway is asphalt concrete with two 3.66 m (12.0 ft) lanes and 0.91 m to 2.44 m (2.99 to 8.01 ft) variable shoulder widths. The project location is prone to large amounts of snowfall in the winter months. Major efforts are undertaken every year to keep the road passable during the winter months with snowplows and the application of traction sand and salt.

Presidential Executive Order 13057 issued on July 26, 1997, declared the Lake Tahoe Region an area of national environmental concern. Executive Order 13057 created a Federal Partnership involving five Cabinet-level Agency Secretaries and called for a Memorandum of Agreement (MOA) between the Federal Partnership, the States of California and Nevada, the Tahoe Regional Planning Agency (TRPA), and the Washoe Tribal Government to facilitate coordination and cooperation. The MOA was subsequently signed by the Governor of California, which affirmed a commitment to manage and protect Lake Tahoe's natural resources, to achieve and maintain the previous environmental thresholds, and to adopt, fund and implement the Lake Tahoe Environmental Improvement Program (EIP). The EIP is a strategy to achieve the Environmental Standards Carrying Capacity thresholds required by Public Law 96-551 and adopted for the Tahoe Region in 1982 by TRPA. The Tahoe Regional Planning Compact charges TRPA with attaining and maintaining these environmental threshold carrying capacities to protect the unique values of the Lake Tahoe Basin.

Figure 1: Vicinity Maps

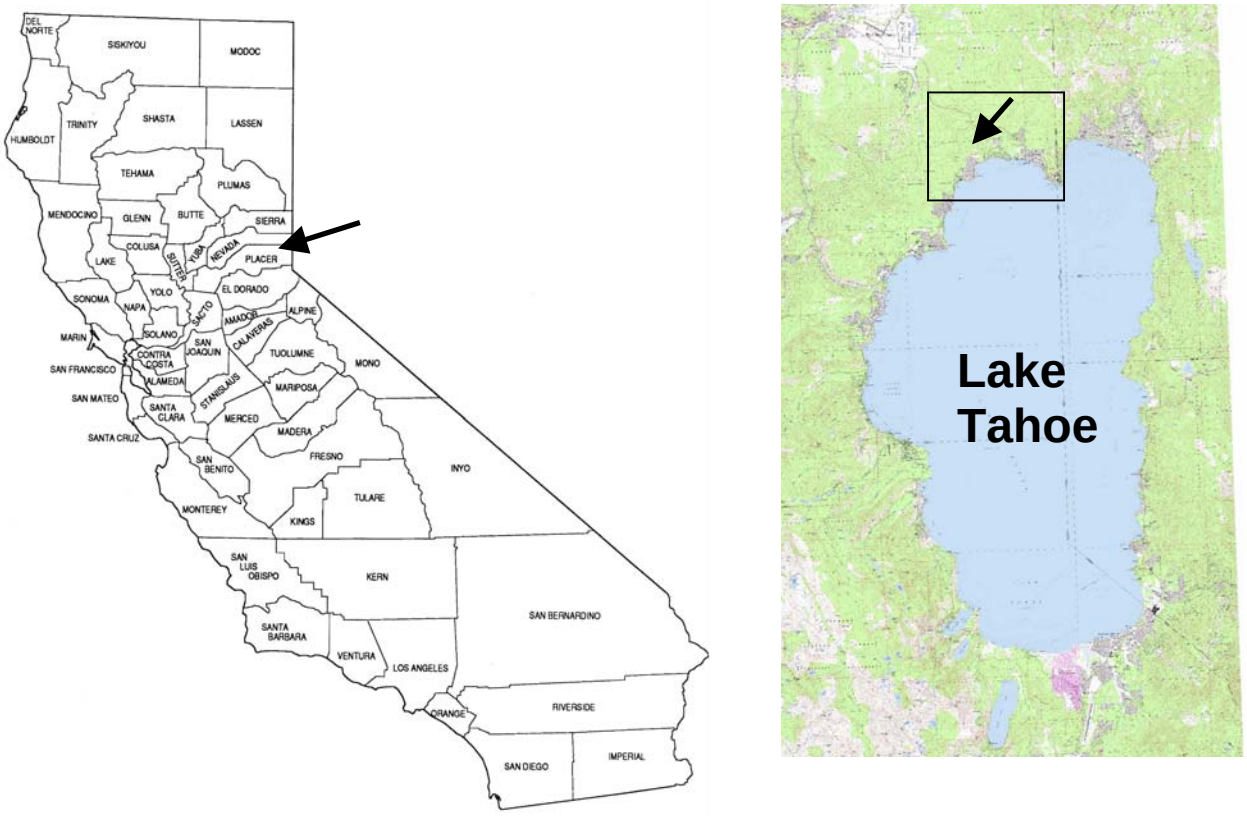


Figure 2: Project Site Map

The Lake Tahoe EIP calls for a Class II bike lane on State Route 267 from Brockway Summit to State Route 28. The portion of the bike lane proposed in this project is identified as Project No. 748 in the 2001 EIP. The storm water quality improvements are identified as Project No. 997.

The Proposed Project will involve six of the nine TRPA environmental thresholds (water quality, air quality/transportation, recreation, scenic resources/community design, soil conservation, and vegetation). By implementing appropriate storm water Best Management Practices (BMPs), including treatment BMPs and erosion control BMPs, there will be an improvement to the water quality of flows from highway facilities, which will help in the attainment of the water quality threshold. The air quality/transportation threshold will be addressed by improving traffic flow with the addition of left-turn channelization and by the incorporation of Class II bike lanes, which will encourage alternate modes of travel. In addition, the Class II bike lanes will help to attain the recreation threshold. The scenic resources/community design threshold will be addressed by revegetating disturbed and denuded areas and by painting lighting poles and the backs of signs. The revegetation of disturbed and denuded areas, whether existing or formed by project construction, will help in the attainment of the soil conservation and vegetation thresholds. The remaining three thresholds (fisheries, noise, and wildlife) will not be affected.

Purpose and Need

The primary purpose of the proposed project is to collect and treat the storm water runoff from impervious surfaces within Caltrans' right of way and to provide Class II bike lanes.

Section L.1. of Caltrans' Statewide National Pollutant Discharge Elimination System (NPDES) permit issued by the State Water Resources Control Board (BOARD ORDER 99-06-DWQ), requires compliance with effluent limitations at point source discharges from the highway facility to surface waters, ground waters, and municipal storm water collection systems. The Water Quality Control Plan for the Lahontan Region (Basin Plan) designates Caltrans as the agency with the primary responsibility for implementing erosion control projects on State highways. In addition, the TRPA permit requires preservation of identified Stream Environment Zones (SEZs) that are identified through TRPA's Land Capability Verification process. SEZs are environmentally protected lands within the Tahoe Basin and, where possible, this project would include the reclamation of previously disturbed areas within the SEZ, through soil stabilization and revegetation.

Project Description

The following is a description of the proposed scope of work/improvements associated with the build alternative for this project.

- Provide storm water treatment measures including infiltration basins, detention basins, traction sand traps, bio-filtration swales, berms, dikes and gutters and other soil stabilization measures. Sheet flow will be enhanced in areas where it is determined that it provides more efficient treatment than collection. Because of the climate and soil conditions in the Tahoe Basin, vegetation may not fully re-establish in the biofiltration swales. However, even without vegetation, bio-filtration swales will provide water quality improvements by decreasing runoff velocities and encouraging sedimentation. The following measures will be included in the Proposed Project:

- To provide additional water quality improvements, nonvegetated areas adjacent to the shoulder will be landscaped to promote vegetation growth and measures will be provided to discourage vehicles from entering.

- Erosion control measures will be incorporated on all nonvegetated slopes within the State right of way.

- The existing roadway will be reconstructed in a limited section to a cross slope for storm water drainage purposes.

- Access roads to the storm water treatment facilities will be paved.

- Pavement rehabilitation (overlay and dig-out repair) will be conducted and shoulder will be widened to a 2.4 m (7.87 ft) width.

- A 3.0-m (9.84 ft) shoulder width will be provided in areas that require traction sand trap inlet maintenance per Maintenance recommendation.

- Class II bike lane will be provided.

- Rock walls will be installed to minimize excavations, vegetation removal, and stream environmental zone encroachment.

- Left-turn lanes will be installed at the State Route 267 intersection with Commonwealth Drive/Kingswood Drive to facilitate traffic flow.

- Conventional highway lighting will be installed at two locations currently lacking intersection lighting (Rusty Road/North Ave and Pinedrop Lane), and all utility lighting will be upgraded to conventional highway lighting.

- A Traffic Monitoring Station is proposed to be installed at an approximate location of KP 12.9 (PM 8.02).

- Fill slopes will be graded to 1:4 except in locations where it is desirable to minimize vegetation removal. The steepest fill slope will be at 1:2, and cut slopes are proposed to be 1:2 or flatter to match the existing conditions per District Landscape Architecture approval.

- As was done on the previous Brockway Summit Projects (PLA 267), revegetation is to be accomplished by using the California Conservation Corps (CCC). This will be a separate service contract and will occur after the road projects are complete and signed off. (See language discussing revegetation on page 11 of this document). The revegetation effort will plant live container plantings of native species (from the TRPA recommended plant list) to supplement the erosion control seeding and aid restoration of the project area. It will also fulfill Caltrans mitigation requirements for wetlands, drainages and Stream Environment Zones (SEZs). The species proposed for planting are those indigenous to or adjacent to the project areas. The mix or composition of species will be determined based on post construction habitat conditions and will be defined by upland, wetland, drainage and SEZ. Plant layout will replicate existing vegetative patterns found in adjacent undisturbed areas. Basin side slopes and spillways will also be revegetated; these areas will be planted with species characteristic of seasonally wetter conditions.

- Acquisition of new right of way (primarily through easements) will be required for the infiltration/detention basins, bio-swales and improvements to the drainage outfalls and intersections. See the attached Right of Way Data Sheets (Exhibit E) for right of way cost estimates.

- Impacts from the creation of any new coverage resulting from access roads to the infiltration basins and shoulder widening will be compensated through the use of Land Coverage Credits from the California Tahoe Conservancy Credit Bank.

Alternatives

There is only one build alternative proposed that meets the purpose and need for this project. The Build Alternative is discussed above under Project Description.

The No Build Alternative would not provide any of the improvements in the Build Alternative and would essentially leave the project area as it currently exists.

The No Build Alternative is not recommended because it would not meet the purpose and need of the project to improve storm water quality conditions, provide Class II bike lanes, and fulfill Caltrans' commitment to the EIP.

Permits and Approvals Needed

The following permits will be required for construction of this project:

Agency	Permit/Approval	Status
California Tahoe Conservancy	Approval of conservancy coverage credits.	Approval is requested after TRPA conditional permit is obtained.
Tahoe Regional Planning Agency	Any work that is not exempt or qualified exempt under the Memorandum of Understanding between Tahoe Regional Planning Agency (TRPA) and California Department of Transportation, dated July 6, 1990, requires a TRPA permit prior to construction.	Submittal of TRPA permit application is pending the Final Environmental Document and submittal of the 95% design plans. TRPA Environmental Initial Checklist has been submitted for review. TRPA Conditional Permit will be received once the application has been reviewed and approved by TRPA.
United States Army Corps of Engineers	Section 404 Permit for filling or dredging waters of the	Permit application will be submitted once TRPA permit

	United States	is approved.
California Water Resources Control Board	Water Discharge Permit-Section 401 permit.	Permit application will be submitted once final environmental document (Initial Study) is approved.
California Department of Fish and Game	1602-General Permit Minimal Activities	Permit application will be submitted once final environmental document (Initial Study) is approved.
U.S. Department of Agricultural	Any work involving tree removal may require a permit from the U.S. Forest Service (USFS), Lake Tahoe Basin Management Unit. Potential tree removal is also identified within the TRPA permit application submittal.	Permit application will be submitted once final environmental document (Initial Study) is approved.
Lahontan Regional Water Quality Control Board (RWQCB)	A Water Pollution Control Program (WPCP) or a Storm Water Pollution Prevention Plan (SWPPP) also must be prepared by the Contractor, approved by the Resident Engineer, and then reviewed by Lahontan RWQCB no later than 30-days before construction activities begin. If the project warrants a SWPPP then Caltrans must send a Notification of Construction (NOC) to the Lahontan RWQCB at least 30-days prior to construction.	Prepared by the Contractor at the beginning of the construction phase.

Description of Water Quality Requirements

The Proposed Project is designed to collect storm water discharge from the 20-year return period, 1-hour duration storm, known as the "design storm," within this 1.9 km (1.2 mi) stretch of highway. The design storm is defined in the Permit. The infiltration basins will slow the flow rate of the storm water, allowing traction sand and other solids to settle within the basin.

The Proposed Project will involve compliance with the following water quality programs:

- **National Pollution Discharge Elimination Systems (NPDES) Program:** The State Water Resources Control Board has issued Caltrans a Statewide NPDES Storm Water Permit (Order No. 99-06-DWQ), adopted July 15, 1999, which covers all Caltrans facilities. In compliance with this permit, Caltrans developed the Statewide Storm Water Management Plan (SWMP) to address storm water pollution controls related to highway planning, design, construction, and maintenance activities throughout the State of California. The SWMP describes the minimum procedures and practices that Caltrans uses to reduce discharged pollutants from storm drainage systems owned or operated by Caltrans. It outlines procedures and responsibilities for protecting water quality at Caltrans facilities, including the selection and implementation of Best Management Practices (BMP's). The Proposed Project will follow the guidelines and procedures outlined in the SWMP.

- **Municipal Separate Storm Sewer System (MS4) Program**: The U. S. Environmental Protection Agency (EPA) defines MS4 to include a conveyance or system of conveyances (roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over disposal of storm water and designed or used for collecting or conveying storm water. EPA's Phase II Final Rule includes permit requirements for designated small municipalities that maintain control of a separate storm sewer system. The objectives of the Phase II regulations are to: (1) reduce the discharge of pollutants to the maximum extent practicable, and (2) protect water quality. Caltrans is the owner of an MS4 permit that includes conveyances at State Route 28 and meets or exceeds the requirements of the small municipalities within the project area.

- **Construction Activity Permitting:** Caltrans construction activity is covered by the NPDES permit (Order No. 99-06-DWQ). In addition, construction activity is subject to the technical conditions of the Lahontan RWQCB NPDES Construction General Permit for the Lake Tahoe Basin (Board Order R6T 2005-0007). A notification of construction (NOC) is required for enrollment for projects that have 0.4 hectare (1 acre) of soil disturbance. By law, all storm water discharges associated with construction activity where clearing, grading, and excavation results in soil disturbance of at least 0.4 hectare (1 acre) of total land area must

comply with the provisions of this NPDES Permit and develop and implement an effective Storm Water Pollution Prevention Plan (SWPPP). Implementation of the plan starts with the commencement of construction and continues through the completion of the project. Upon completion of the project, the applicant must submit a Notice of Construction Completion (NOCC) to the RWQCB to indicate that the construction phase is completed.

Chapter 2 Affected Environment, Environmental Consequences, and Mitigation, Minimization, and/or Avoidance

Environmental Setting

State Route 267 is a north-south undivided two-lane conventional highway, 20.42 km (12.69 mi) long that traverses from Interstate 80 (I-80) near Truckee in Nevada County to State Route 28 near Kings Beach in Placer County. From Truckee, State Route 267 travels southeasterly through rolling terrain that progresses into mountainous terrain to a elevation of 2,194 meters (m) (7,199 feet (ft)) at Brockway Summit (near the beginning of the Proposed Project limits). From Brockway Summit, the route descends 288 m (945 ft) into the Tahoe Basin ending at State Route 28 in Kings Beach. The project area is a combination of light commercial, urban, and forest setting.

The route is of local and regional significance providing access to residential, industrial, commercial, and recreational land uses and serves inter-regional, local commuter, and recreational traffic traveling between the Tahoe Basin, Martis Valley, Truckee, and I-80. State Route 267 provides access to the Truckee-Tahoe Airport and is a main connecting link between I-80 and the Tahoe Basin. This segment of highway is also known as the “Resort Triangle” along with Route 89. Both highways run south upon exiting Truckee and connect with State Route 28, which follows the north shore of Lake Tahoe and is lined with resorts on both sides of the State line.

The project area is located within the Lake Tahoe Basin and the connecting Truckee River Canyon, an intermountain basin formed by the faulting of the rocks of the Sierra Nevada to the west and the Carson Range to the east. Within the project area, State Route 267 varies from flat to undulating topography and ranges in elevation from approximately 1987 m (6,520 ft) at Stewart Way to approximately 1900 m (6,245 ft) at the intersection of Route 28. The region is rural in character with Sierran coniferous forests, mountainous granite rock, alpine streams, and other natural resources including nearby Lake Tahoe. Lake Tahoe, with its unique clear blue and environmentally sensitive fresh water, is within view of portions of the project area and is the prominent natural and scenic resource near the project site.

The climate is characterized by warm dry summers and cold snowy winters. The valleys at high elevations are generally the coldest and the lower elevations, particularly near the lake, are the warmest. Average annual precipitation is approximately 81 cm (32 in), and primarily falls in the form of snow. Total precipitation for the year ranges from about 51 cm (20 in) along the eastern shore in Nevada to up to 127 cm (50 in) at higher elevations along the western edge of the Basin (average of 31 in/yr at Tahoe City), including an average total 254 to 330 cm (100 to 130 in) of snow at the lower elevations where readings are available. The growing season ranges from 80 to 125 days (122 days in 5 years out of 10) beginning on May 30 and ending on September 29 in 5 out of 10 years (Soil Survey Tahoe Basin Area California and Nevada, March 1974).

Aesthetics

Affected Environment

The Proposed Project is located in the scenic Lake Tahoe Basin of northern California. The Basin is known both regionally and internationally for its picturesque natural setting and year-round recreational attractions. Millions of visitors from North America and around the world visit the Basin annually. The area is also known for its sensitive ecological balance. In recent years, forest health and water quality have gained national attention from government and private interests. Clarity of the lake has been diminishing rapidly over the past several decades sparking major efforts to identify and reverse causes of these issues. Concerns for scenic resource protection are also gaining momentum in the Basin. As the local population grows and continues to consume developable land, local and state agencies are concerned that unmanaged growth could impair the very resources that attract visitors to the region. As a result, strict planning, land use, and design guidelines have been adopted to direct development in the basin.

Located on the north shore of Lake Tahoe, State Route 267 is one of two primary corridors connecting I-80, including the City of Truckee and Reno, as well as the Sacramento and Bay Area region, with the Lake Tahoe Basin. This route is heavily used throughout most of the year, both by local inhabitants and by a steady inflow of visitors. Summer months bring seasonal vacationers to the area, increasing traffic and congestion. The land use along the entire project limits is primarily urban and industrial development. Near the beginning of the project (KP 11.8 [PM 8.7]), land use is of mixed commercial development, including automobile services and a golf course. The land use soon transitions from commercial to residential, primarily single-family housing, on the east side of Route 267.

The highway is conventional with both paved and unpaved shoulders ranging in width from approximately 0.45 m to 1.5 m (1.5 ft to 5.0 ft), with unpaved shoulders often used for parking.

At about KP 14.9 (PM 9.25), development becomes less conspicuous as homes are setback further from the highway and are accessed from secondary roads to the highway. This pattern prevails until the project limit at Stewart Way. Near Stewart Way, the landscape is more rural and natural in appearance with an occasional home visible from the highway. Overhead utilities are there to remind the traveler that the area is developed.

Views along State Route 267 are primarily restricted to the forested development that flanks this section of the highway. Lake Tahoe comes into view as the traveler approaches the town of Kings Beach and State Route 28 from the north, but the lake view is interrupted by vegetation and adjacent development.

TRPA Scenic Threshold

The threshold for scenic quality tracks long-term, cumulative changes to views seen from major roadways in urban and natural landscapes and to the views seen from Lake Tahoe looking toward shore. Any Visual Impact Assessment prepared for roadway projects in the Tahoe Basin must consider TRPA's Scenic Resource Inventory. TRPA has inventoried and rated roadway segments throughout the Basin to determine scenic resource values from roadway vantage points. Each roadway unit is given a numerical threshold based on a scoring system. Generally, TRPA requires that the numerical threshold for each roadway unit be maintained or the attained value improved based on 1982 values. The following TRPA roadway units fall within the limits of the Proposed Project:

Table 1: Roadway Units within the Limits of Proposed Project

TRPA Roadway Units	2001 Composite Threshold Value	Threshold Attainment	Non-Attainment Cause
Roadway Unit #40-: Brockway Cutoff	15.0	No	Landscape Views, Variety

Note: To secure threshold attainment, all travel routes with a 1982 score of 15.5 (roadway) or greater must maintain those scores, and all travel routes with a 1982 score of 15 (roadway) or less must improve their scores until the threshold score is reached.

Other scenic threshold resources considered for scenic quality include: 1) Public Recreation Areas and Bike Trails – this threshold aims to protect the viewshed from public recreation areas and certain bike trails, and 2) Community Design – the community design threshold is a policy statement that applies to the built environment. The intent of the policy is to improve travel route ratings and produce built environments compatible with natural, scenic, and recreational values.

Additional threshold values that have an indirect effect on scenic quality and improving environmental conditions within the Basin include 1) Vegetation Threshold, 2) Soil Conservation Threshold, and 3) Water Quality Threshold. Caltrans roadway and drainage improvements for this project will consider all the above-mentioned TRPA threshold values and will incorporate

design elements that do not degrade current scenic values. Scenic values will be enhanced to the extent possible given the scope of work. Design recommendations and additional threshold values that address TRPA scenic thresholds are discussed in following sections.

TRPA Vegetation Threshold

Meeting the TRPA Vegetation Threshold is directly related to minimizing impacts to the scenic quality of the Lake Tahoe Basin. Threshold criteria consist of increasing plant and structural diversity – this includes favoring the retention of trees greater than 76 cm (30 in) in diameter breast height (dbh) in westside forest types and 24-inches in dbh in eastside forest types. Secondly, provide for the non-degradation of the natural qualities of any plant community that is uncommon in the region or of exceptional scientific, ecological and scenic values. Lastly, maintain a minimum number of population sites for sensitive plant species.

Making the effort to meet, to the best of our abilities, the vegetation threshold and thus preserving the targeted species, communities, and specimen trees will enhance the capacity to preserve the scenic quality and diversity of the Lake Tahoe Basin.

Soil Conservation Threshold

Threshold values to be considered for soil conservation include two requirements to conserve soil. These are to reduce land coverage with impervious materials while keeping in compliance with coverage coefficients as defined in the Land Capability Classification of the Lake Tahoe Basin California-Nevada, and second, preserving naturally functioning Stream Environment Zones (SEZs). By preserving soil quality and structure, native vegetation can be better established over time.

Water Quality Threshold – Surface Water Infiltration, Etc.

Threshold requirements for water quality target decreasing sediment and nutrient loads entering Lake Tahoe. One method for achieving such objectives is to increase surface water infiltration into the groundwater. The establishment of native plant material is an essential component in accomplishing an increase in surface water infiltration rates.

These threshold requirements, along with those previously mentioned, as a whole, help to ensure that the scenic quality of the Lake Tahoe Basin is preserved.

Environmental Consequences

Roadway elements included in the Proposed Project and their potential effects on the scenic qualities are summarized below:

Infiltration Basins– Infiltration basins will be located at various locations along the project limits. Although the basins will be sited in areas where disturbance of existing natural features will be minimized, some will be in viewing distance of the highway. Basins will also receive access roads that will be used to maintain the basins.

Maintenance Vehicle Pullouts (MVP's) with Sand Traps – Sand traps are to be installed as part of the new drainage system. Where feasible MVP's are to be placed at each sand trap location in order to facilitate maintenance operations.

Drainage Berms – Drainage berms along with biofiltration swales will be constructed within the proposed drainage easement to divert surface storm water runoff and direct the runoff to basins. The berms are intended to also prevent storm water runoff from entering the existing golf course.

Retaining Wall – A retaining wall is proposed where right of way constraints are deeming it necessary.

Construction Staging Area, also known as Temporary Construction Easement (TCE) – An area of state right-of-way adjacent to the highway is being provided for construction staging.

Mitigation/Minimization/Avoidance Measures

Measures will be taken to moderate impacts, and in most instances will enhance the pre-construction conditions. All sediment basins, as well as the construction staging area, will be located in areas relatively void of vegetation or other natural features. As a part of the scope for this project, the basins, staging area and all other disturbed areas will receive the following measures:

- **Erosion Control** – All disturbed areas including slopes, basin walls and bottoms, drainage berms, and construction staging area will be addressed with permanent erosion control. Permanent erosion control measures will include harvesting and applying duff to disturbed areas; incorporating compost to slope areas; hydroseeding all disturbed areas with native plant species; and applying topical application of pine needle mulch, fiber rolls, and erosion control blankets.

- **Tree Removal and Impacts** – A number of coniferous trees will be removed resulting from the increased width of the shoulder and bike lane. Every effort will be taken to ensure that the number of trees removed is minimized. Replacement trees will be included in the re-vegetation plan to offset impacts.

- **Re-vegetation** – In addition to the application of permanent erosion control measures, disturbed areas will be evaluated for the implementation of a re-vegetation plan. The plan will be implemented following the completion of the roadway construction activities – possibly following construction seasons. The focus of the planting will be to screen or naturalize the basins so they blend in naturally with the surroundings. In addition, sediment basin floors will be planted with the appropriate species of plants to enhance the bio-filtration aspects of the basins. Finally, all other disturbed areas will be planted to help stabilize the slopes and to help minimize surface erosion.

- **Non-natural Elements –** A number of non-natural elements including retaining walls and sediment control basins will be assessed and addressed for aesthetic treatment. Retaining walls will be designed to effectively retain continuity with the surrounding landscape. Wall treatments to be considered include integral stained concrete, chemical staining concrete, rock-shaped formliner veneer, mortared rock face veneer, or a soil-nail wall. Sediment control basins will be contour graded and enhanced with boulders to make them appear more natural.

Air Quality

Affected Environment

The Proposed Project is located within the Lake Tahoe Air Basin and is in attainment for Carbon Monoxide (CO) and Particulate Matter (PM_{10}) levels. The Federal Standard for CO has not been violated since 1992. The State of California's and TRPA's 8-hour standard (6 ppm) was not exceeded from 1995 to 2001, although a few exceedances occurred in 2002 and 2003. Ozone data for 1996 to 2002 show that the California ozone standard was met at the Lake Tahoe Boulevard monitoring site every year, with the exception of 1997 and 1999. The TRPA standard of 0.08 ppm has been exceeded on at least one occasion per year since its adoption.

While the air quality at Lake Tahoe is generally good, the local bowl-shaped geography makes the Basin more sensitive to air pollutants than other areas. Winter weather conditions often cause smoke and other air pollution to accumulate close to the ground overnight, due to temperature inversions that trap air at the surface. Historical measurements indicate that the main sources of winter air pollution in the Basin are local vehicle use, from both exhaust and road dust, and wood smoke emissions from fireplaces and wood-burning stoves. In the summer, air pollution in the Basin originates from both local and out-of-area sources. Vehicle use is the main cause of the locally generated air pollution in the summer. Air pollution from nearby cities, such as Sacramento and San Francisco, is carried into the Basin by wind.

The Placer County Air Pollution Control District (APCD) currently enforces air quality regulations for construction activities. TRPA states that construction air quality effects are temporary and the TRPA code of regulations does not cover construction effects. The following thresholds were extracted from the TRPA air quality threshold program.

- AQ1-Carbon Monoxide levels shall not exceed the TRPA 8-hour 6.0 ppm standard.
- AQ2-Ozone levels shall not exceed the TRPA 1-hour standard of 0.08 ppm.
- AQ3-Particulate Matter concentrations shall not exceed the California and Federal standards for 24-hour concentrations and the annual average.
- AQ4-TRPA's regional and sub-regional visibility standards shall not be violated. In addition, for regional and sub-regional visibility, wood smoke concentrations shall be reduced 15% below 1981 levels and for sub-regional visibility, suspended soil particles shall be reduced 30% below 1981 levels.
- AQ5-There shall be a 7% reduction in traffic volume on the US 50 corridor from the 1981 values.
- AQ6-Annual emmissions from wood smoke shall be reduced 15% from 1981 levels.
- AQ7-Vehicle Miles Traveled (VMT) shall be reduced 10% below the 1981 levels.
- AQ8-Dissolved Inorganic Nitrogen (DIN) load on Lake Tahoe from atmospheric sources shall be reduced by approximately 20% of the 1973-1981 annual average.

The Placer County APCD enforces air quality regulations for construction activities. The proposed project will involve earth-changing modifications, but will not permanently affect the air quality. The only effect on air quality will be temporary, during the construction phase of the Proposed Project. However, these grading activities will be minor and are anticipated to fall below the construction permit criteria established by the Placer County APCD. Therefore, the Proposed Project will not significantly impact the air quality of the surrounding area.

Environmental Consequences

There are no potential adverse significant impacts to air quality as a result of the Proposed Project.

Mitigation/Minimization/Avoidance Measures

No mitigation measures are necessary. Nevertheless, below is a list of avoidance and minimization measures to reduce the emissions of fugitive dust. The dust control practices used will be in compliance with Caltrans Standard Construction Specifications. These may include but not be limited to:

- Covering open bodied trucks when used for transporting materials will minimize the generation of airborne dust.
- The use of water or chemicals for control of dust in the construction process and the grading of roads or the clearing of land.
- Watering disturbed areas to form a compact surface after grading and earthwork.
- Watering disturbed (graded or excavated) surfaces as necessary, increasing frequency when dry weather conditions persist.
- The prompt removal of earth or other material from paved roadways.

Biological Resources

Affected Environment

The following natural communities classified according to *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer, eds., 1988) have been recorded within the study area: urban and Sierran Mixed Coniferous Forest.

Urban

Land use along State Route 267 between Stewart Way and the State Route 28 intersection is dominated by human development. State Route 267 passes through the community of Kings Beach and includes businesses and residences located adjacent to the highway. In addition, State Route 267 runs adjacent to the Kings Beach golf course. In addition to serving residents of Kings Beach, the project area experiences intense usage associated with tourism throughout the year as a gateway to the North Shore of Lake Tahoe.

Sierran Mixed Coniferous Forest

The dominant plant community in the project area consists of Sierran mixed coniferous forest. The coniferous forest is dominated by ponderosa pine (*Pinus ponderosa*), Jeffery pine (*Pinus jefferyi*), incense cedar (*Calocedrus deccurens*), and white fir (*Abies concolor*). Common shrubs

include antelope bitterbrush (*Purshia tridentata*), huckleberry oak (*Quercus vaccinifolia*), and green-leaf manzanita (*Arctostaphylos patula*).

Surface water systems within the project area located between Stewart Way and the State Route 28 intersection are contained within and tributary to the Lake Tahoe Basin. Within this larger hydrologic basin, the Tahoe Vista and Griff Creek minor watersheds are directly tributary to Lake Tahoe and are located within the limits of the project area (Figure 2; TRPA, 2003).

Tahoe Vista

The Tahoe Vista watershed is a minor watershed drained by Snow Creek, an intermittent stream crossing State Route 28 at KP14.3 (PM 8.90) under an approximately 10.7 m (35-ft) long triple RCB bridge structure. Snow Creek is located outside of the Proposed Project area approximately 0.40 km (0.25 mi) east of the intersection of State Route 267 and Stewart Way. The headwaters of Tahoe Vista Creek originate from several tributary channels about 1.61 km (1 mi) west and north of the project area from the south face of Brockway summit. TRPA considers Tahoe Vista Creek as habitat in “marginal condition” for migratory fish (TRPA, 2003).

Griff Creek

Griff Creek is an intermittent stream crossing State Route 28 at PM 9.42, currently culverted through three 1.85 m x 1.15 (72-inch x 45-inch) CMPA culverts, and two 750 mm (30-inch) CMP culverts. Griff Creek parallels Route 267 adjacent to the project area, approximately 45.7 m (150 ft) east of State Route 267. The headwaters of Griff Creek originate from several tributary channels about 5.6 km (3.5 mi) northwest of the project area from the southeast face of Martis Peak and southwest face of Mount Baldy. TRPA considers Griff Creek as habitat in “marginal condition” for migratory fish (TRPA, 2003).

Environmental Consequences

The position of the ordinary high water mark (OHWM) delineates the limits of U.S. Army Corps of Engineer (USACE) jurisdiction at the ephemeral drainage within the project area located at KP 14.31 (PM 8.89) **(**Figure 3). Work within the ordinary high water mark of this drainage will consist of the replacement of the existing CMP culvert and the installation of a new headwall at the inlet. This culvert will be approximately 1.8 m (6 ft) longer than the existing culvert to compensate for shoulder widening in this area.

Including the placement of the new CMP culvert and associated fill (culvert extension, and headwall), approximately 1.95 yd^3 of fill will be permanently placed below the ordinary high

water mark of this drainage. An area totaling 53.82 ft^2 (0.001 acre) will be permanently impacted below the ordinary high water mark of this drainage during construction (See Table 2).

Table 2: Locations of Jurisdictional Waters of the United States
(Ephemeral, intermittent, and perennial drainages)

Location	Cause of Impact	Permanent Impact below OHWM (Ft^2/acre)	Permanent Fill below OHWM (Yd^3)	Temporary Fill Below OHWM (Yd^3)
Ephemeral Tributary to Snow Creek PM 8.89	Replace CMP. Add headwall	53.82 ft^2/ 0.001acre	1.95 Yd^3 (Headwall)	0.00 yd^3
	Total:	**0.001 acre**	**1.95 yd^3**	**0.00 yd^3**

Impacts to Jurisdictional Wetlands and Special Aquatic Sites

Areas meeting the three-parameter definition of wetlands were not observed within the Proposed Project area, therefore, direct and indirect impacts to special aquatic sites, including wetlands, are not expected to occur.

Mitigation/Minimization/Avoidance Measures

The following avoidance, minimization, and mitigation measures (refer to Table D1 for details) shall be implemented in areas where jurisdictional waters of the United States, including wetlands, are impacted:

AV-01 Establish Environmentally Sensitive Areas
Additional direct and indirect impacts to sensitive biological resources, including wetland and SEZ resources, throughout the project area will be avoided or minimized by designating these features outside of the construction impact area as “environmentally sensitive areas” (ESAs) on project plans and in project specifications. ESA information will be shown on contract plans and discussed in the Special Provisions. ESA provisions may include, but are not limited to, the use of temporary orange fencing to delineate the proposed limit of work in areas adjacent to sensitive resources, or to delineate and exclude sensitive resources from potential construction impacts. Contractor encroachment into ESAs will be restricted (including the staging/operation of heavy equipment or casting of excavation materials). ESA provisions shall be implemented as a first order of work and remain in place until all construction activities are complete.

WQ-01 Restrict Timing of In-Stream Activities
To avoid direct impacts to fisheries resources and water quality, no work will be performed within surface water drainages within the project area (tributary to Snow Creek) in creeks until

flows have ceased and the streambeds are dry. It is predicted that in most years the seasonal dry period of these drainages occurs between May 15th and October 15th. However, work within these drainages will be subject to stream conditions and permit restrictions.

WQ-02 Minimize Disturbance to Creek Channel and Adjacent Areas
Disruption of the streambed and adjacent riparian corridor will be minimized. All stream and riparian habitat areas outside of the construction limits will be designated as ESAs as detailed in measure AV-01.

Disturbed areas within the construction limits, including temporary or permanent access routes, will be graded to minimize surface erosion and siltation into streambeds. Any access routes will be removed after each construction season and the streambed and bank will be re-contoured back to the general angle of repose that existed pre-construction. Stream banks and adjacent areas that are disturbed by construction activities will be stabilized to avoid increased erosion during subsequent storms and runoff. Bare areas will be covered with mulch and re-vegetated to pre-project conditions. Construction site BMPs will be utilized to prevent contamination of the stream bank and watercourse from construction material and debris as detailed in measure WQ-03.

WQ-03 Containment Measures / Construction Site Best Management Practices
Measures will be employed to prevent any construction material or debris from entering surface waters or their channels. BMPs for erosion control will be implemented and in place prior to, during, and after construction in order to ensure that no silt or sediment enters surface waters.

Caltrans' Standard Specifications require the Contractor to submit a Water Pollution Control Plan. This plan must meet the standards and objectives to minimize water pollution impacts set forth in Section 7-1.01G of Caltrans' Standard Specifications. The Water Pollution Control Plan must also be in compliance with the goals and restrictions identified in the Lahontan Water Quality Control Board’s Basin Plan. Any additional measures included in the 401 certification, 1601 Agreement, 404 permit, or TRPA permit will be complied with. These standards/ objectives, at times referred to as “Best Management Practices” (BMPs), include but are not limited to:

- Where working areas encroach on live or dry streams, lakes, or wetlands, TRPA and Lahontan RWQCB-approved physical barriers adequate to prevent the flow or discharge of sediment into these systems shall be constructed and maintained between working areas and streams, lakes and wetlands. During construction of the barriers, discharge of sediment into streams shall be held to a minimum and will be contained through the use TRPA and

Lahontan RWQCB-approved measures that will keep sediment from entering protected waters.

- Oily or greasy substances originating from the Contractor's operations shall not be allowed to enter or be placed where they will later enter a live or dry stream, pond, or wetland.
- Asphalt concrete shall not be allowed to enter a live or dry stream, pond, or wetland.

WQ-05 Restore Riparian and Stream Habitat Disturbed by Construction

Prior to vegetation removal, the area will be surveyed by a qualified biologist for a complete accounting of species and their quantities present within the construction limits. Upon completion of the construction project, stream banks will be permanently stabilized and the riparian areas will be re-planted with appropriate native species. Tree and shrub species that will be used for the restoration will include willow, alder, and cottonwood. Stream channels will be re-graded to pre-construction conditions.

A restoration and monitoring plan will be prepared by the Caltrans Landscape Architecture Branch and will be submitted for approval by the appropriate agencies prior to project permitting. The restoration plan will outline and detail all planting and erosion control activities and all associated proposed monitoring activities (including length and timing of monitoring, success criteria, remedial actions, and documentation).

WQ-06 “Water Quality Fees” or “Excess Coverage” Mitigation

Any new land coverage in the Lake Tahoe Basin is subject to TRPA regulation and may be assessed a ”water quality mitigation fee” (for projects utilizing “allowable” potential coverage; or to perform “Excess Coverage Mitigation” (for projects utilizing “excess” coverage). Excess land coverage is defined as existing coverage beyond the total maximum allowable base coverage, the transferred coverage, and the coverage previously mitigated under this program. The Excess Coverage Mitigation program offers five options to mitigate excess land coverage:

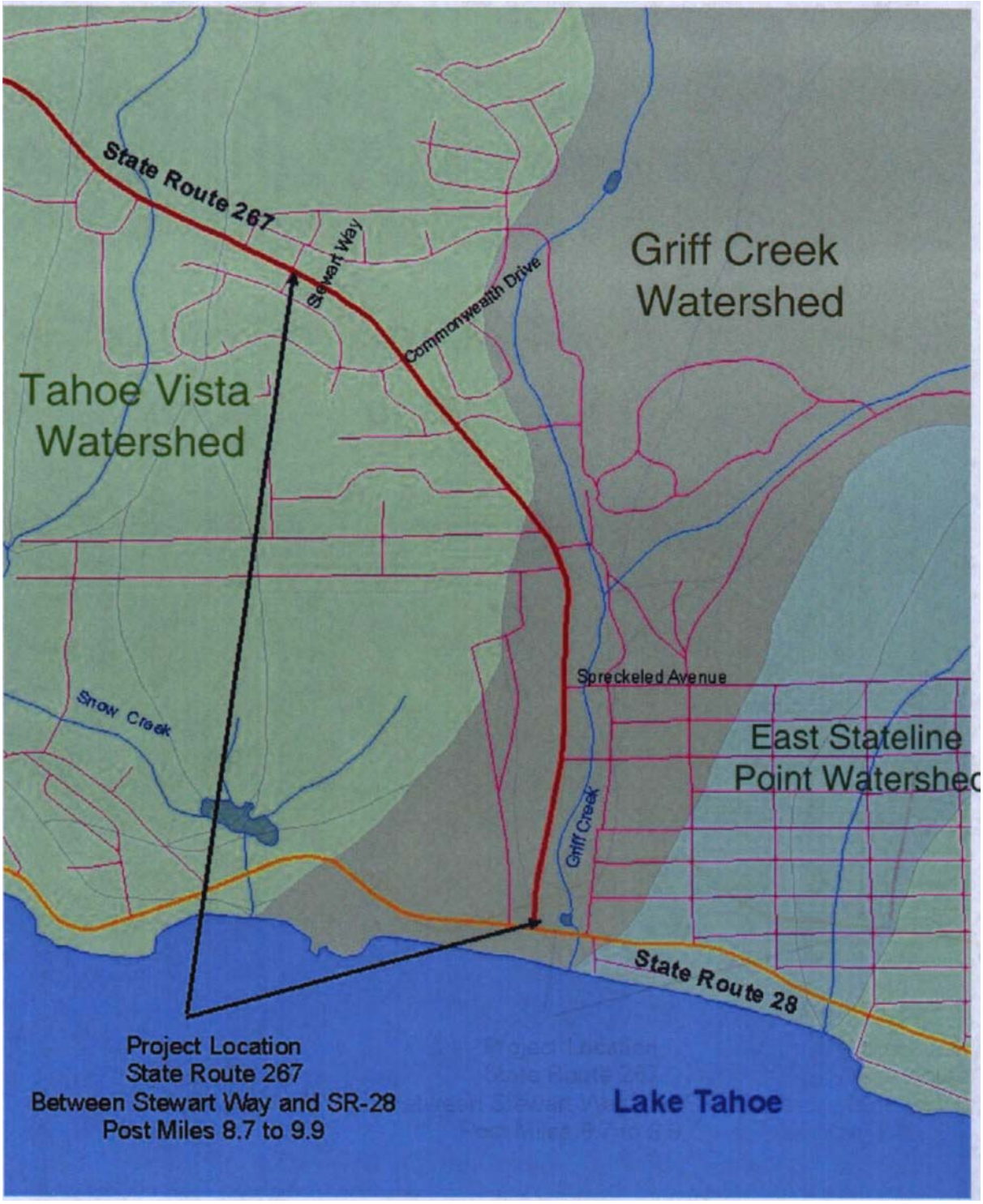
1. Reduce coverage onsite,
2. Reduce coverage offsite (Caltrans has allowable coverage credits for any Land Capability District with the California Tahoe Conservancy Land Bank to use/transfer to any of its projects within the California side of the Lake Tahoe Basin),
3. Coverage mitigation fee used to retire land coverage within the same hydrologic zone.
4. Parcel consolidation or parcel line adjustment,

5. Projects within community plans (see TRPA Code Section 20-5).

WQ-07 Restore Disturbed SEZs at a 1.5 to 1 Ratio

Mitigation as detailed in WQ-07 shall be provided at a 1.5 to 1 ratio for direct impacts to SEZ areas according to TRPA policy.

Figure 3: Minor Watersheds within Project Vicinity



Stream Environment Zones

Disturbance of Stream Environment Zones (SEZs) can reduce their capability to attenuate and convey spring snowmelt, storm water, and other forms of surface runoff from the watersheds of the Tahoe Basin to Lake Tahoe. Locations of SEZ within the project area are outlined in Table 3. Disturbance also reduces the natural water cleansing processes of these areas. Maintaining these areas in as natural a state as possible ensures their capability to convey and treat water, which is necessary for attaining environmental thresholds for water quality."Disturbance" is defined as incorporating one or more of the following (TRPA 2001):

1. Impervious surface or compaction,
2. Fill or debris in a natural floodplain or other SEZ area,
3. Hydrologic blockages or artificial drainage of a SEZ,
4. Functional reduction of the floodplain or other SEZ areas adjacent to lake tributaries. Increased flows or runoff, whether through diversion of flows, incising, unnatural alignment or gradient of channels,
5. Removal and/or degradation of riparian vegetation appropriate to the SEZ area; or
6. Other restoration activities.

Table 3: Locations of Stream Environment Zones
(Jurisdictional Waters and Wetlands Inclusive)

Location	**Total Impact Area (Ft^2/acre)**	**Area of Additional Coverage (Ft^2/acre)**	**Area of Coverage Removal or Revegetation (Ft^2/acre)**
SEZ Tributary to Snow Creek PM 8.89	882.6 ft^2 / 0.020 acre	662.6 ft^2 / 0.015 acre	220 ft^2 / 0.005 acre
SEZ Griff Creek	0 ft^2	0 ft^2	0.0 ft^2
Total:	**882.6 ft^2 / 0.020 acre**	**662.6 ft^2 / 0.015 acre**	**220 ft^2 / 0.005 acre**

Work that will result in direct impacts to SEZ areas **(**Figure 4) will consist of drainage improvements (replace culvert, install headwall), and shoulder widening activities. A total of 882.6 ft^2 (0.020 acre) of SEZ will be permanently impacted by construction activities. Of this total, 662.6 ft^2 (0.015 acre) will be disturbed by additional coverage (fills and structures), and 220 ft^2 (0.005 acre) will be disturbed by revegetation activities. These calculations account for the functioning SEZ lands that are impacted and does not include the area occupied by the culvert underneath the roadway.

Mitigation, Minimization, Avoidance

The following avoidance, minimization, and mitigation measures shall be implemented in areas where jurisdictional waters of the United States, including wetlands, are impacted:

AV-01: Establish ESAs
WQ-01: Restrict Timing of Instream Activities
WQ-02: Minimize Disturbance to Creek Channel and Adjacent Areas
WQ-03: Containment Measures / Construction Site Best Management Practices
WQ-05: Restore Riparian and Stream Habitat Disturbed by Construction:
WQ-06: "Water Quality Fees" or "Excess Coverage" Mitigation
WQ-07: Restore Disturbed SEZs at a 1.5 to 1 Ratio

Figure 4: Stream Environment Zones within Project Vicinity

Sensitive Non-SEZ Areas

Impervious Coverage Areas (Non SEZ areas)

One of the main sources of sediment and nutrients entering Lake Tahoe is surface runoff. Under natural conditions, surface runoff entering Lake Tahoe has very low concentrations of suspended sediment and nutrients. New development and additional impervious surface area in the Lake Tahoe Basin increases the volume of surface runoff that, without proper controls, will negatively affect the quality of the surface runoff water.

The addition of asphalt/concrete and the placement of structures during the course of shoulder widening and associated drainage improvements, and the construction of maintenance turnouts, is expected to increase impervious land coverage within the project area. Approximately 45,303 ft^2 (1.04 acres) of non-SEZ land adjacent to State Route 28 is proposed to be covered by impervious surfaces. Revegetation of these areas is unfeasible because these areas will be converted to “hard” impervious surfaces.

Mitigation/Minimization/Avoidance Measures

Water quality detention and infiltration basins, basin access routes, and some areas of shoulder widening will require vegetation removal to construct. These areas are proposed to be revegetated with native grasses upon completion. Approximately 13,451 ft^2 (0.31 acres) of area will require vegetation removal and subsequent revegetation by planting grasses or applying other appropriate (non-impervious) erosion control materials, as determined by Caltrans Landscape Architecture branch in conjunction with TRPA approval.

Assuming that areas excepted from new land coverage restrictions (public facilities) will be considered “allowable” for potential additional coverage, compensatory mitigation for impacts to these areas will be accomplished using the Land Coverage Credits from the California Tahoe Conservancy Bank. Any new land coverage in the Lake Tahoe Basin is subject to TRPA regulation and may be assessed a “water quality mitigation fee” (for projects utilizing “allowable” potential coverage; or to perform “Excess Coverage Mitigation” (for projects utilizing “excess” coverage). Excess land coverage is defined as existing coverage beyond the total maximum allowable base coverage, the transferred coverage, and the coverage previously mitigated under this program.

Common Vegetation

Removal of woody vegetation (trees and shrubs) during the course of shoulder widening, drainage improvements and the construction of water quality infiltration and detention basins and their associated access routes is unavoidable. However, project features were designed to disturb the least amount of vegetation feasible. TRPA requires that all trees above six inches dbh to be removed for a project be mapped and their sizes recorded. Table 4 provides a summary of tree removal impacts for the Proposed Project.

Table 4: Summary of Tree Take

Species	DBH (inches)
Ponderosa Pine	44
Ponderosa Pine	43
Ponderosa Pine	38
Ponderosa Pine	38
Ponderosa Pine	31
Ponderosa Pine	28
Ponderosa Pine	23
Ponderosa Pine	22
Ponderosa Pine	21
White Fir	21
Ponderosa Pine	20
Ponderosa Pine	19
Ponderosa Pine	16
Incense Cedar	14
White Fir	14
Ponderosa Pine	12
Total	**404 Inches**

Noxious Weeds Assessment

Noxious weeds are plants considered as “troublesome, aggressive, intrusive, detrimental, or destructive to agriculture, silviculture, or important native species, and difficult to control or eradicate.” Plant species to be considered as “noxious weeds” for this assessment were compiled from TRPA, USFS-LTBMU, California Department of Food and Agriculture (CDFA), and U.S. Department of Agriculture (USDA) lists.

Impacts to native vegetation, SEZs and wetlands within the project area due to noxious weed spread as a result of the Proposed Project are possible, but not likely, given that relatively few noxious weeds are known from the project area and implementation of avoidance strategies and design features for reducing the spread of noxious weeds will be used, as described below. In

general, the amount of disturbance associated with road widening and drainage improvement activities is relatively low, given the limited extent of impacts adjacent to the existing roadway, so the habitat changes due to construction activities (reduced shade and soil cover) that could promote noxious weed growth are also relatively low.

No established infestations of noxious weeds were detected in the project area. In addition, many species of noxious weeds are known to be moderately common along the state highway system located just outside of the Tahoe Basin (including State Route 89 and Interstate 80, north of the project area) that may be potentially dispersed into the Lake Tahoe Basin by way of the highway system. Common noxious weeds in these areas include Klamath weed (*Hypericum perforatum)* spotted and sqaurrose knapweeds and yellow star thistle (*Centaurea maculosa*, C. *squarrossa*, C. *solstitialis*), white-top cress (*Cardaria draba*), quackgrass (*Elytrigia repens*), and Canada thistle (*Cirsium arvense*). The potential introduction to the project site of noxious weed material from outside of the project area shall be avoided or minimized by implementing the following measures (refer to Table D1 for details):

WC-01 Weed Free Construction Equipment

All off-road construction equipment is to be cleaned of potential noxious weed sources (mud, vegetation) before entering the project area (preferably before entry into the Lake Tahoe Basin), and after entering a potentially infested area before moving on to another area, to help ensure noxious weeds are not introduced into the project area. The contractor shall employ whatever cleaning methods (typically with the use of a high-pressure water hose) are necessary to ensure that equipment is free of noxious weeds. Equipment shall be considered free of soil, seeds, and other such debris when a visual inspection does not disclose such material. Disassembly of equipment components or specialized inspection tools is not required. Equipment washing stations shall be placed in areas that afford easy containment and monitoring (preferably outside of the Lake Tahoe Basin), and that do not drain into the forest or sensitive (riparian, SEZ, wetlands, etc.) areas.

WC-02 Equipment Staging in Weed Free Areas

Staging of equipment should only be done in weed-free areas. Landings should be placed in forested areas rather than open flats to help prevent the establishment of noxious invaders such as yellow star thistle, which utilize open sunny areas.

WC-03 Weed Free Erosion Control Treatments

To further minimize the risk of introducing additional non-native species into the area, only locally TRPA-approved plant species appropriate for the project area will be used in any erosion control or revegetation seed mix or stock. No dry-farmed straw will be used, and certified weed-

free straw shall be required where erosion control straw is to be used. In addition, any hydro-seed mulch used for revegetation activities must also be certified weed-free.

Special Status Plant Species

This section provides information on sensitive plant species that are known or may occur in the project vicinity. Table 5 lists all potential sensitive plant species compiled from USFWS, USFS, California Native Plant Society (CNPS), and California Natural Diversity Data Base (CNDDB) lists; literature research; and project files (Figure 5). An expanded discussion is provided for species that could potentially occur in habitat within the project area or that were detected within the project limits during field surveys.

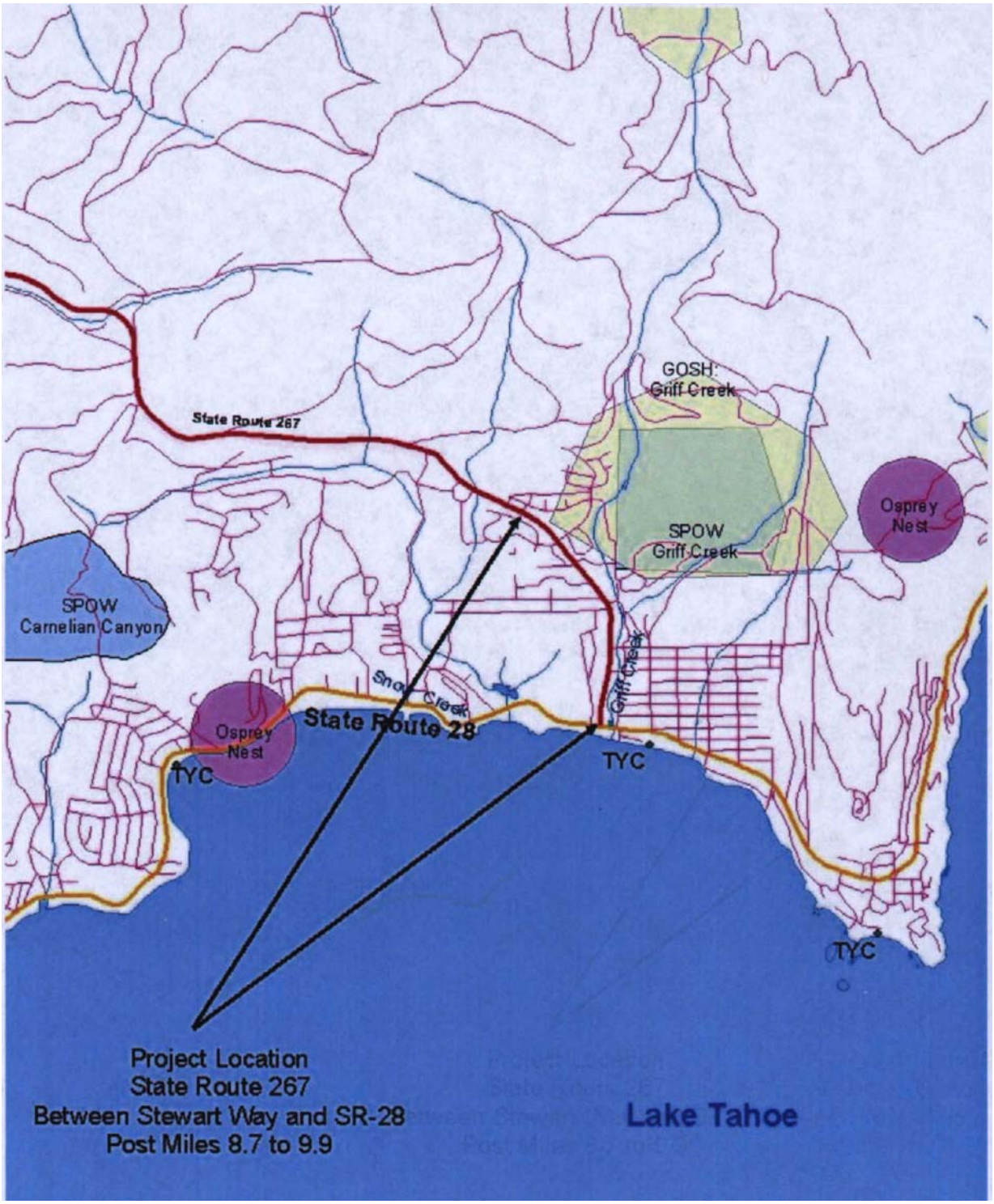
Table 5: Sensitive Plant Species

Scientific Name	Common Name	Status	Habitat/ Notes	Bloom Period	Potential to Adversely Affect with Project
Arabis rigidissima demote	Galena Creek Rock Cress	List 1B, LTBMU	Broadleaf upland forest and upper montane coniferous forest on rocky substrate.	August	None. Not detected during surveys.
Berebris aquifolium repens (= B. sonnei)	Truckee Barberry	FPD	Upper montane coniferous forests	May-June	None. Not detected during surveys.
Botrychium ascendens	Upswept Moonwort	List 2	Lower montane coniferous forest, mesic soils.	July-August	None. Appropriate habitat not present in project area. Not detected during surveys.
Carex limosa	Shore Sedge	List 2	Bogs, fens, montane coniferous forest, meadows, marshes	June-August	Low. Appropriate habitat not present in project area. Not detected during surveys.
Carex paucifructus (= C. mariposana)	Sierra Sedge	TRPA	Montane meadows	June-August	None. Appropriate habitat not present in project area. Not detected during surveys.
Chaenactis douglasii alpine	Alpine Dusty Maidens	List 2	Granitic alpine boulder and rock fields	July-September	None. Appropriate habitat not available within project area. Not detected during surveys.
Draba asterophora asterophora	Tahoe Draba	List 1B, TRPA, LTBMU	Alpine boulder and rock fields in subalpine coniferous forest	July-August	None. Appropriate habitat not available within project area. Not detected during surveys.
Draba asterophora macrocarpa	Cup Lake Draba	List 1B, TRPA, LTBMU	Subalpine coniferous forest, rocky substrates.	July-August	None. Appropriate habitat not available within project area. Not detected during surveys.

Epilobium howelii	Subalpine Fireweed	List 1B, LTBMU	Meadows, subalpine coniferous forest, mesic sites	July-August	None. No occurrence in Tahoe Region. Not detected during surveys.
Epilobium palustre	Marsh Willowherb	List 2	Bogs, fens, meadows, seeps.	July-August	None. Appropriate habitat not present in project area. Not detected during surveys.
Epiolobium oreganum	Oregon Fireweed	List 1B	Bogs, fens, lower mesic montane coniferous forest	June-August	None. Appropriate habitat not present in project area Not detected during surveys.
Eriogonum umbellatum torreyanum	Donner Pass Buckwheat	FSC, List 1B, LTBMU	Meadows, upper montane coniferous forest, rocky volcanic.	July-September	None. Appropriate habitat not available within project area. Not detected during surveys.
Glyceria grandis	American Manna Grass	List 2	Bogs, fens, meadows, marshes, stream and lake margins, wet places	June-August	None, Appropriate habitat not present in project area. Not detected during surveys.
Lewisia longipetala	Log Petaled Lewisia	List 1B, TRPA, LTBMU	Alpine boulder and rock fields, subalpine coniferous forest, mesic, rocky sites	July-August	None. Appropriate habitat not available within project area. Not detected during surveys.
Rorripa subumbellata	Tahoe Yellow Cress	FC, CE, TRPA, LTBMU	Decomposed granitic beaches of Lake Tahoe	May-September	None. Project will not have impacts to lakeshore areas. Not detected in project area since 1940's. Not detected during surveys.
Scirpus subterminalis	Water Bulrush	List 2	Marshes, montane lake margins	July-August	None, Appropriate habitat not present in project area. Not detected during surveys.
Scutellaria galericulata	Marsh Skullcap	List 2	Wet sites, mesic meadows and stream banks in coniferous forest	June-September	None. Appropriate habitat not present in project area. Not detected during surveys.

CE: CA Endangered **CT:** CA Threatened **CR:** CA rare; Not presently threatened with extinction, it is in such small numbers that it may become endangered if its present environment worsens. **CSC**: California Special Concern: Plants protected under native Plant protection Act (NPPA), California Environmental quality Act (CEQA), or the Natural Communities Conservation Planning Act (NCCPA) **FE:** Federal Endangered **FT**: Federal Threatened **FPE:** Federal Proposed Endangered **FPT:** Federal Proposed threatened **FC**: Candidate for Federal Listing; **FPD:** Federal Proposed Delisting; **FSC:** Federal Species of Concern- Species for which the USFWS has sufficient information to propose them as threatened or endangered under the Endangered Species Act. **CNPS List 1B:** California Native Plant Society list of plants rare, threatened or endangered in California **CNPS List 2:** California native Plant Society list of plants rare, threatened or endangered in California, but more common elsewhere. **CNPS List 3:** California native Plant Society list of plants about which there is a need for more information- a review list. **CNPS List 4:** California native Plant Society list of plants of limited distribution- a watch list. **TRPA**: Tahoe Regional Planning Agency Special Interest Species; **LTBMU:** Lake Tahoe Basin Management Unit Sensitive Species

Figure 5: Special Status Species within Project Vicinity



Tahoe Yellow Cress

Species Account

Tahoe yellow cress (TYC; *Rorippa subumbellulata*) is a rhizomatous perennial herb of the mustard family. It is known only from the Lake Tahoe Basin inhabiting sandy decomposed granite beaches and in sandy areas of riparian communities (Pavlic, 2002 and CNPS 2001). TYC is listed as endangered by the State of California and is a federal Candidate for listing. It is also considered as a "sensitive" species by the USFS-LTBMU, and as a "special interest species" by TRPA. TYC is in bloom between May and September (CNPS 2001).

Presence on Project Site

CNDDB and TRPA records were reviewed for known occurrences of TYC in the north Lake Tahoe area. Within the project vicinity, records and survey status for TYC exist in the following general location:

Agate Bay Area/ Tahoe Vista

TYC was last seen in this area in 1949. The vicinity has been searched several times between 1979 and 2003 but no plants have been found. Property owners are interested in having plants reintroduced at this site (CNDDB, 2002).

Project Impacts

Because the Proposed Project will not affect the Lakeshore zone of Lake Tahoe, no direct or indirect impacts to Tahoe Yellow Cress are expected to occur.

Special Status Animal Species

This section provides information on sensitive animal species that are known or that may occur in the project vicinity. Table 6 lists all potential sensitive animal species compiled from USFWS, USFS, and CNDDB lists; literature research; and project files **(**Figure 5**)**. Special-status species that have been recorded in or adjacent to the Lake Tahoe Region, but for which there are no observations and no appropriate habitat within the project area are provided in Table 6, and no further discussion of these species is provided. An expanded discussion is provided for sensitive species for which potential habitat is present and that may be expected to occur in the project area or that were detected within the project limits during field surveys.

Table 6: Sensitive Animal Species

Scientific Name	Common Name	Status	Habitat	Potential to Adversely Affect with Project
Accipiter genitilis	Northern Goshawk	CSC, LTBMU, MI, TRPA	Mature coniferous forests	Low. Goshawk territories located near project area, project will remove mature trees adjacent to highway
Anas platyrhynchos	Mallard	MI, TRPA	Shallow ponds, lakes, rivers, marshes and flooded fields. Nests in concealing vegetation.	None. Appropriate habitat not present in project area.
Aplodontia rufa	Sierra Nevada Mountain Beaver	CSC	Dense riparian-deciduous forest, preferring open and intermediate canopy cover with dense understory near water. Deep, friable soils required for burrowing	None. Appropriate habitat not present in project area.
Aquila chrysaetos	Golden Eagle	TRPA	Nest on cliffs and in large trees in open areas. Hunts in rolling foothills, mountain areas, sage-juniper flats, and deserts.	None. Suitable nesting habitat unavailable in vicinity. Species unlikely to forage in project area.
Capnia lacustra	Lake Tahoe Benthic Stonefly	MI	Deep waters of Lake Tahoe	None. Project does not impact deep waters of lake Tahoe
Corynorhinus townsendii	Townsend's Big-Eared Bat	LTBMU	Desert and pinyon/scrub associations. Roosts in caves, mines and buildings	None. Project area may provide foraging habitat, no breeding or roosting habitat available. Unconfirmed presence in Tahoe region
Dendroica petechia brewsteri	Yellow Warbler	CSC	Breeds in riparian deciduous habitats	None. Appropriate nesting habitat not present in project area.
Dendropagus obscurus	Blue Grouse	MI	Open, mid- to mature-aged stands of fir, Douglas-fir, and other conifer habitats interspersed with medium to large openings, and available water	None. Marginal habitat available within project area, species unlikely to inhabit urban/rural areas adjacent to State Route 267.
Drycopus pileatus	Pileated Woodpecker	MI	Dense, mature deciduous and coniferous forests, requires large territories.	None. Suitable nesting habitat not present in project area
Empidonax trallii	Willow Flycatcher	CE, LTBMU, MI	Nests in extensive montane willow thickets 2,000-8,000 feet elev.	None. Extensive willow thickets not available in project area
Euderma maculatum	Spotted Bat	FSC	Occurs in a variety of habitats. Roosts in rock crevices along cliffs or caves	None. Project area may provide foraging habitat, no breeding or roosting habitat available. Unconfirmed presence in Tahoe region
Falco peregrinus anatum	Peregrine Falcon	FD, LTBMU, TRPA	Nests and roosts on protected ledges	None. Suitable nesting habitat unavailable in project vicinity
Gilia bicolor pectinifer	Lahontan Tui Chub	LTBMU	Large, deep lakes of the Lahontan Basin. Algal beds in shallow, inshore areas seem necessary for successful spawning, egg hatching, and larval survival	None. Appropriate aquatic habitat is not available within project area.
Gulo gulo luteus	California Wolverine	CT, LTBMU	Montane conifer, subalpine conifer, alpine dwarf-shrub, wet meadow, and montane riparian habitats. Prefer areas with low human disturbance,	None. Species unlikely to enter developed project area.
Haliaeetus leucocephalus	Bald Eagle	FT, CE, MI, TRPA	Coniferous and conifer/hardwood forests near water	None. Closest recorded nesting/roosting occurrence is 7.5 miles from project area.
Hydromantes platycephalus	Mount Lyell Salamander	FSC, CSC	Inhabits high elevation rock fields in mixed conifer, lodgepole pine, and	None. Appropriate habitat not present in project area.

			subalpine areas, using rock fissures seeps, shade, and low plants	Species not known from Tahoe Region
Hypomesus transpacificus	Delta Smelt	FT	Inhabits slow waters of Sacramento-San Joaquin Delta and tributaries	None. Project area is outside of known range of this species.
Lepus americnus tahoensis	Sierra Nevada Snowshoe Hare	CSC	Early successional montane forests with brushy understory	None. Potential suitable habitat is located within project area, removal of mature conifers unlikely to adversely affect species.
Martes americana	American Marten	LTBMU	Mature coniferous forests	None. Marginal foraging habitat available in project area. Denning habitat not available.
Martes pennanti pacifica	Pacific Fisher	CSC, LTBMU	Mature coniferous forests	None. Lack of recent sightings, project area within suspected gap in distribution

Myotis ciliolabrum	Small Foot Myotis	FSC	Inhabits relatively arid woody and brushy uplands near water. Colonies roost in buildings, mines, and caves	Low. Project area may provide foraging habitat, marginal breeding or roosting habitat available. Unconfirmed presence in Tahoe region
Myotis evotis	Long Eared Myotis	FSC	Inhabits a variety of wooded habitats. Roosts in buildings, crevices, under bark, and in snags	Moderate. Forest adjacent to project area may provided suitable roosting and foraging habitat
Myotis thysanodes	Fringed Myotis	FSC	Inhabits a variety of wooded habitats. Roosts in caves mines, crevices and buildings.	Low. Project area may provide foraging habitat, marginal breeding or roosting habitat available.
Myotis volans	Long Leg Myotis	FSC	Commonly inhabits woodlands and forests above 4,000 feet. Roosts in rock crevices, buildings, tree bark, in snags, mines, and cave.	Moderate. Forest adjacent to project area may provided suitable roosting and foraging habitat
Myotis yumanensis	Yuma myotis	FSC	Inhabits open forests and woodlands near water. Roosts in caves, mines, crevices, and buildings.	Low. Project area may provide foraging habitat, marginal breeding or roosting habitat available.
Odecoileus hemionus	Mule Deer	MI, TRPA	Forests, brushfields, and meadows statewide.	None. Deer may forage in project vicinity, but project area not suitable for fawning
Onochorhynchus clarki henshawi	Lahontan Cutthroat Trout	FT, MI, TRPA	Lakes and streams of the Lahontan Basin.	None. Species not known from drainages within project area, extirpated from Lake Tahoe proper
Onocorhynchus mykiss	Central Valley Steelhead	FT	Sacramento-San Joaquin rivers and accessible tributaries	None. Project area is outside of known range of this species.
Onocorhynchus mykiss	Rainbow Trout	MI	Cold perennial freshwater systems statewide	None. Affected project drainage is ephemeral.
Onocorynchus tshawyscha	Central Valley ESU Chinook Salmon (fall and spring runs)	FPE/FPT	Sacramento-San Joaquin rivers and accessible tributaries	None. Project area is outside of known range of this species.
Pandion haliaeetus	Osprey	CSC, TRPA	Conifer and conifer/hardwood forests near water	Low. Nest sites recorded 1.7 miles west and 1.5 miles east of project area, project will remove mature conifers suitable for osprey perches.
Pogonicthys macrolepidotus	Sacramento Splittail	FE	Inhabits slow waters of Sacramento-San Joaquin delta and tributaries	None. Project area is outside of known range of this species.
Rana muscosa	Mountain Yellow-Legged Frog	FC, CSC, LTBMU	Inhabits ponds, tarns, lakes, and streams at moderate to high elevations.	None. Drainages within project area of insufficient flow and depth to provide refuge for over-wintering larvae., Lack of recent detections in northern Tahoe Basin
Rana pipiens	Northern Leopard Frog	LTBMU	Quiet permanent or semi-permanent aquatic habitat with emergent and submergent vegetation, and vegetated habitat with moist substrate in vicinity of aquatic habitat	None. Presumed extirpated in Tahoe Basin due to lack of detections in last 30 years
Riparia riparia	Bank Swallow	CT	Require available sandy vertical bluffs or riverbanks for digging nest burrows. Nests in colonies.	None. Nesting habitat not available within project vicinity.
Salvelinus fontinalis	Brook Trout	MI	High mountain lakes and streams, generally above 4,000' elevation, requires cool oxygenated waters	None. Affected project drainage is ephemeral.

Strix nebulosa	Great Grey owl	LTBMU	Breeds in old-growth red fir, mixed conifer, or lodge pole pine habitats, always in the vicinity of wet meadows	None. Lack of recorded occurrences in Tahoe Basin. Suitable nesting and foraging habitat not available within project area
Strix occidentalis occidentalis	California spotted Owl	CSC, LTBMU, MI	Mature forests with suitable nest sites	Low. Closest recorded PAC is 2.1 miles west of project area. Project will remove mature trees adjacent to highway
Ursus americanus	Black Bear	MI	Forested habitats statewide	None. May forage in urban and rural areas, but somewhat tolerant of human presence. Project will not affect denning areas.
Vulpes vulpes necator	Sierra Nevada red Fox	LTBMU	Coniferous forests above 5,000 feet, often associated with montane meadows	None. Potentially suitable habitat not present within project area.

CE: CA Endangered **CT:** CA Threatened **CR:** CA rare; Not presently threatened with extinction, it is in such small numbers that it may become endangered if its present environment worsens. **CSC**: California Special Concern: Plants protected under native Plant protection Act (NPPA), California Environmental quality Act (CEQA), or the Natural Communities Conservation Planning Act (NCCPA) **FE:** Federal Endangered **FT**: Federal Threatened **FPE:** Federal Proposed Endangered **FPT:** Federal Proposed threatened **FC**: Candidate for Federal Listing; **FPD:** Federal Proposed Delisting; **FSC:** Federal Species of Concern- Species for which the USFWS has sufficient information to propose them as threatened or endangered under the Endangered Species Act. **TRPA**: Tahoe Regional Planning Agency Special Interest Species; **LTBMU:** Lake Tahoe Basin Management Unit Sensitive Species, **MI:** LTBMU Management Indicator Species; Land Resources Management Plan

Northern Goshawk, Spotted Owl, Osprey, and other Migratory Birds

Species Account

The northern goshawk, spotted owl, and osprey are considered species of special concern by the California Department of Fish and Game (CDFG).

The federal Migratory Bird Treaty Act (MBTA) of 1918 protects migratory bird species (16 USC 703-711). The list of birds protected by this act appears in Title 50 of the Code of Federal Regulations, Section 10.13, and include Federal and State Species of Concern appearing on the USFWS list of “Endangered and Threatened Species that may occur in or be affected by projects in the Selected Quad” for this project.

Presence on Project Site

In 1982, all known Goshawk territories were considered as “Threshold Sites” (TRPA 1982). Additional Goshawk territories have been discovered in the Basin since 1982. Cumulatively (including “Threshold sites”), a total of 23 territories, containing 51 nest sites, have been documented in the Basin since 1976. No sign of goshawk was detected during recent Caltrans surveys. However, because the project is unlikely to impact habitat appropriate for northern goshawk nesting or foraging, species specific protocol surveys were not conducted by Caltrans for this project. Within the vicinity of the project area, a goshawk territory has been recoded near

Griff Creek, beginning within 45.7 m (150 ft) east of the State Route 267 project area (TRPA, 2003).

California spotted owl protected activity centers (PACs) have been delineated surrounding each territorial owl activity center detected on National Forest System lands since 1986. Owl activity centers are designated for all territorial owls based on: (1) the most recent documented nest site, (2) the most recent known roost site when a nest location remains unknown, and (3) a central point based on repeated daytime detections when neither nest or roost locations are known. PACs are maintained regardless of California spotted owl occupancy status, unless habitat is rendered unsuitable by a catastrophic stand-replacing event and surveys are conducted to protocol confirm non-occupancy.

Since the project is unlikely to impact habitat appropriate for spotted owl nesting or foraging, Caltrans did not conduct species-specific protocol surveys for this project. The closest USFS-LTBMU delineated "protected activity center (PAC)" for breeding spotted owls to the project is located approximately 3.38 km (2.1 mi) west of the project area near Carnelian Canyon (TRPA, 2003).

TRPA and USFS LTBMU record two occurrences of osprey nesting near the project area. The first is near Tahoe Vista approximately 2.7 km (1.7 mi) west of the project area, and the second is near Stateline Point approximately 2.4 km (1.5 mi) east of the project area. No osprey activity was recorded by Caltrans biologists during surveys conducted in the project vicinity of Dollar Hill and within the remainder of the project area during the 2004 and 2005 seasons.

It is anticipated that migratory birds or raptors may try to nest in vegetation within the project area between April 1st and August 15th.

Environmental Consequences

Because the project will not impact habitat suitable for northern goshawk nesting or roosting, because sign of northern goshawk nests or individuals were not detected within 0.8 km (0.5 mi) of the project area during recent Caltrans, TRPA, or USFS-LTBMU surveys, and because appropriate avoidance and minimization measures are proposed, no direct impacts to northern goshawk are expected to occur. Since suitable foraging habitat for this species exists within the project area, and due to the proximity of project activities to a TRPA/USFS-LTBMU mapped goshawk territory ("Griff Creek"), northern goshawks may potentially be indirectly impacted, although the extent of these impacts is expected to be minor. Construction noise and activities within the project area may disrupt normal goshawk foraging of movement patterns within the

project vicinity. Populations of northern goshawk within the Lake Tahoe Basin are not likely to be adversely impacted by the Proposed Project.

No direct impacts to California spotted owls are expected to occur because the project will not impact habitat suitable for California spotted owl nesting or roosting, because no known spotted owl nests or PACs are located within .40 m (0.25 mi) of the project area, because signs of California spotted owl were not detected during recent TRPA, or USFS-LTBMU surveys within the project area, and because appropriate avoidance and minimization measures are proposed. Because suitable foraging habitat for this species exists within the project area for this species, California spotted owls may be potentially indirectly impacted, although the extent of these impacts is expected to be minor. Construction noise and activities within the project area may disrupt normal owl foraging of movement patterns within the project vicinity. Populations of California spotted owls within the Lake Tahoe Basin are not likely to be adversely impacted by the Proposed Project.

Since the project will not impact habitat suitable for osprey nesting or roosting, and because sign of active osprey nests or individuals were not detected within 0.40 km (0.25 mi) of the project area during recent Caltrans, TRPA, or LTBMU surveys, no direct or indirect impacts to osprey are expected to occur.

Because suitable nesting and foraging habitat for these species exists within and adjacent to the project area, these species may potentially be indirectly impacted. The extent of these impacts would be expected to be minor. By observing the avoidance, minimization and mitigation measures, no direct impacts to migratory bird species are expected to occur. Construction noise and activities within the project area may disrupt normal foraging, movement, or nesting patterns within the project vicinity. Populations of migratory bird species within the Lake Tahoe Basin are not likely to be adversely impacted by the Proposed Project.

Mitigation/Minimization/Avoidance

It is anticipated that migratory birds or raptors may try to nest in vegetation within the project area. If any work will alter vegetation, the Contractor shall take measures as necessary to prevent impacts to migratory birds and raptors, including any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof. The following avoidance and minimization measures are designed to reduce impacts to nesting and roosting raptors and migratory bird species, and shall be implemented in all areas where the removal of woody vegetation is proposed:

WL-03 Restrict Timing of Woody Vegetation Removal

It is recommended that the removal of any woody vegetation (trees and shrubs) required for the project is completed between August 16th and February 28th prior to project construction, outside of the predicted nesting season for raptors and migratory birds in this area. Vegetation removal outside this time period may not proceed until a survey by a qualified biologist determines no nests are present or in use (see WL-04 below).

WL-04 Nesting Bird Survey

If woody vegetation removal, construction, grading, or other project-related improvements are scheduled during the nesting season of protected raptors and migratory birds (March 1st to August 15th), a focused survey for active nests of such birds shall be conducted by a qualified biologist within 30 days prior to the beginning to project-related activities. If active nests are found, Caltrans shall consult with USFWS regarding appropriate action to comply with the Migratory Bird Treaty Act of 1918 and with CDFG to comply with provisions of the Fish and Game Code of California. If a lapse in project-related work of 30 days or longer occurs, another survey and, if required, consultation with USFWS and CDFG, will be required before the work can be reinitiated.

WL-05 Limit Vegetation Removal

Vegetation removal shall be limited to the absolute minimum amount required for construction.

Bats

Species Accounts

In addition to bat species listed as sensitive by the resource agencies discussed below and in table 14, State laws protect bats and their occupied roosts from harassment and destruction. Protection under California Law is found in the Fish Game code Section 2000, 2002, 2014 and 4150, and under California Code of Regulations section 251.1. It is anticipated that tree roosting bats may use the forested areas within the project area.

Several species of bats require trees as daytime roosts, and several other species day roost in trees occasionally or use trees as important night roosts. The following are tree roosting bat species that may be expected to occur in the project area (Grindall, 1996; CDFG, 2002 and Zeiner et al. 1990):

Obligate Tree Roosting Species	Tree Important
Lasionycteris noctivagans	*Antrozous pallidus*
Lasiurus cinereus	*Eptesicus fuscus*

Lasiurus blossevillii	*Myotis lucifugus* *Myotis yumanensis* *Myotis californicus* *Myotis ciliolabrum* *Myotis evotis* *Myotis thysanodes* *Myotis volans*

Presence on the Project Site

According to the California Wildlife Habitat Relationships (CWHR) database, suitable habitat parameters exist within the mixed coniferous forest, riparian forest, and montane meadow to support each of the bat species listed above (with the exception of the red bat, *Lasiurus blossevillii*). According to Murphy, et al. (2000) the following bat species have been recorded as occurring within the Lake Tahoe Basin and may be assumed to be present within the project area:

Antrozous pallidus
Episticus fuscus
Lasionycteris noctivagans
Tardaria brasiliensis
Myotis californicus
Myotis evotis
Myotis lucifugus
Myotis thysanodes
Myotis yumanensis
Pipestrellus hesperus

Environmental Consequences

Although the removal of woody vegetation required for roadway improvements and drainage rehabilitation throughout the project area has the potential to directly impact bat roosts, vegetation removal is not expected to adversely impact populations of tree roosting bat species. Sixteen trees are proposed to be removed in the course of project construction and range in size from 30.5 to 112 cm (12 to 44 in) DBH. Smaller trees (DBH <30.5 cm (12 in)) probably do not possess appropriate structures for use as bat day roosts (exfoliating bark, cavities, or fissures) for tree roosting bats and are more likely to be used as temporary night roosts The larger trees (DBH > 12 inches), are more likely to possess appropriate structures for use as bat day roosts.

Populations of bat species within the Lake Tahoe Basin are not likely to adversely impacted by the Proposed Project. Because suitable roosting and foraging habitat for these species exists within and adjacent to the project area, these species may be potentially indirectly impacted, although the extent of these impacts is expected to be minor. Construction noise and activities

within the project area may temporarily disrupt normal foraging, movement, or roosting patterns within the project vicinity.

Mitigation/Minimization/Avoidance Measures

The following mitigation measures are proposed to offset potential impacts to woody vegetation suitable for roosting bats, and shall be implemented in all areas where the removal of woody vegetation is proposed:

WL-04: Restrict timing of woody vegetation removal
WL-06: Limit vegetation removal

Community Impact Analysis

Affected Environment

This project is part of Lake Tahoe Environmental Improvement Program (EIP) Delivery Plan developed by Caltrans District 03 in coordination with the Tahoe Regional Planning Agency (TRPA) and the Lahontan Regional Control Board's "Water Quality Plan for the Lahontan Region." Project design has proceeded in consultation with the Regional Control Board and the TRPA. It is fully expected that as further design and eventual construction take place that the proposed project will not be in conflict with the local and regional planning agencies.

There are developments along the corridor in the project area which are designated as TRPA Plan Areas. The plan area statements that are pertinent to the project area are Kings Beach Residential (plan area #028), Kingswood East (plan area #025), and Woodvista (plan area #027).

The Woodvista Plan Area encompasses the area of development north of the Old Brockway Golf Coarse on the west side of SR 267. The permissible land uses are residential, public service, recreation and resource management. The primary land use is single family dwellings of one unit per parcel. The Kings Beach Residential Plan Area is just north of the Kings Beach Commercial Area. The permissible land uses are residential, tourist accommodation, public service, recreation, and resource management. The primary land use is residential including single family dwellings, multiple family dwellings, and mobile homes. It is a preferred affordable housing area and is one of the lower income areas in the region.

The Kingswood East Plan Area is the residential area off of State Route 267 northwest of Kings Beach. The permissible land uses are residential, commercial, tourist accommodation, public service, recreation, and resource management. The area is a mixture of newer low-density single

family dwelling subdivisions and condominium developments. Single family dewellings are limited to one unit per parcel and timeshares are allowed 15 units per acre.

The northwest of the project area touches on US Department of Agriculture Forest Service lands.

Environmental Consequences

The basis of the State Route 267 project is storm water treatment and drainage improvement, with pavement overlay. Early project design mapping indicates approximately seven new drainage basin systems being proposed to be added along the 1.2 mi project limits.

Three of the basin systems are proposed for new Right of Way (R/W) that is owned by the Kingswood Residential Association. Two of those proposed basins are slated for Old Brockway Golf Coarse location. Basin placement is being determined for privately developed parcels where only a relatively small undeveloped portion of the total area of the parcel would be occupied. The other basins are proposed for entirely undeveloped parcels. The basins need to be accessed for maintenance by an entryway from current Caltrans right-of-way.

According to Caltrans project engineering the placement of infiltration basins is expected to occupy an approximate total of 1.92 acres. Additional small strip takes near the westerly frontage of State Route 267 should be nominal.

Drainage easement areas will also be required in order to upgrade the drainage system. The Old Brockway Golf Coarse on the southwest side of State Route 267 is expected to have strip takes and the placement of two treatment basins within its current boundaries. This could narrow the existing fairway, while some of the drainage easement area may remain usable.

At this time little impact is expected to land use patterns. Some tree removal will occur. Any biological or visual impacts will be addressed in other technical studies as part of the environmental documentation process.

The proposed project is not expected to have a growth inducing effect, because the project is not designed to increase carrying capacity.

Temporary Impacts during Construction

According to the Caltrans Transportation Concept Report (TCR) for the route, State Route 267 does not have traffic volumes as high as State Route 89, or State Route 28. The TCR Annual Average Daily Traffic (AADT) numbers for the referenced segment of State Route 267 are 9,900 vehicles per day with a peak hour volume of 950 vehicles. The TCR has the “Level of Service”

(LOS) rated as “E” (operations at or near capacity, it is unstable). The referenced segment is subject to poorer LOS at times because of the mountainous terrain, and numerous horizontal curves, and a 6.79 percent grade.

According to the Project Engineer (PE) and project mapping that has been provided, actual construction and access points for the drainage basins will be beyond the traveled way. There will be work within the traveled way and the shoulders to accomplish overlay work and new culvert placement. It is estimated that new culverts will have to be placed at approximately three locations that cross under the route. This may create the need for some lane closures during the overlay and culvert placement portion of the project.

The shoulders are proposed to be expanded to eight feet where feasible to provide for a Class II shared bike lane.

State Route 267 serves as an access point and connector for multi-purposes of the traveling public. The construction on the segment of the highway within the project limits is not expected to directly interfere with critical access points for the Northstar community and the Truckee-Tahoe Airport, which are located to the north by six or seven miles.

There is access for approximately five side streets on to State Route 267 within the project limits. There are driveways from private residences, a tire shop, restaurant, fire station and a supermarket parking lot. Access during construction is expected to impact residential driveways near the south end of the project limits. This is where there are a number of residential driveways are expected to be impacted. According to project engineering emergency access is expected to remain open and disturbances that block entrance/exit areas are expected to be limited to one day.

Coordination with the North Tahoe Fire Protection District location regarding any temporary impact to access will be necessary. The supermarket location at the State Route 267/28 Junction has driveway access from State Route 28 as well as State Route 267.

The route may be sensitive to back ups because of increased heavy truck traffic volume as a result of ongoing local projects. The TCR notes daily truck traffic volume for this segment at 4 percent. Placer County is currently enforcing provisions of County law that require that contractors use imported engineered back fill on their local projects. The local “legal site” to obtain such fill is in Truckee. The North Tahoe Public Utilities District supervises “fill oriented” projects. Projects such as the National Avenue Erosion Control Project and the Sewer Line Improvement Project have caused a huge influx of heavy truck volume on State Route 267. The

hilly and curvy configuration of the referenced segment of the highway make the stretch much more prone to back ups. Passing on this portion of roadway is often forbidden and problematic.

Impacts from excessive delays due to back ups near the summit and at the State Route 267/28 junction could cause some impact to the north shore tourist/resort industry. State Route 267 connects to State Route 28 which then routes travelers to the beach resorts of Tahoe Vista, Kings Beach, and then about two miles east, to the casino/hotel industry in Crystal Bay.

There is no local transit service within the limits of the project area. There are residential communities along the project limits from the State Route 267/28 Junction northwest to Stewart Way. There are five school bus stops in each direction along State Route 267 in the project area and the Kings Beach Elementary School within a block and a half of the highway at the southerly limits of the project area.

Mitigation/Minimization/Avoidance

Although no substantial community impacts are expected to occur as a result of this project, the local residents and tourists will experience inconvenience and delays during construction, including traffic delays from “in lane” construction and the movement of heavy equipment. Back ups are expected to be the worst at the State Route 267/78 junction and on the hilly area of the pass. In order to minimize impacts to circulation and access patterns during construction, the staging of construction and sensitivity to the local environment will be addressed. In order to minimize the effect of construction impacts it will be necessary to explore ways to keep in lane construction activity to a bare minimum. One option may be to limit necessary closures to as short a distance as possible by the segmentation and staging of work. In portions of the construction limits, it may be possible to limit “in lane activity” to a smaller portion of the lane and use areas where the shoulder widens to keep two way traffic open. Caltrans’ guidelines to not permit daytime lane closures in high traffic areas between July 1st and Labor Day.

To minimize the extent of the inconvenience during construction, Caltrans in cooperation with local agencies and organizations will engage in extensive public outreach and communiation efforts in the formof a Public Awareness Campaign to keep the public informed of project events such as lane closures and delays.

The Caltrans Traffic Management Plan (TMP) will address traffic delays issues and access issues as called for within specified Caltrans and TRPA standards.

Cultural Resources

Regulatory Setting

"Cultural resources" as used in this document refers to all historical and archaeological resources, regardless of significance. Laws and regulations dealing with cultural resources include:

Historical resources are considered under the California Environmental Quality Act (CEQA), as well as California Public Resources Code (PRC) Section 5024.1, which established the California Register of Historical Resources. On January 1, 2004, a Section 106 Programmatic Agreement (PA) among the Advisory Council, FHWA, State Historic Preservation Officer (SHPO), and Caltrans went into effect for Caltrans projects, both state and local, with FHWA involvement. The PA takes the place of the Advisory Council's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain reponsibilities to Caltrans. Attachments 1 through 6 of the PA may be used, when applicable, to state-only projects and to those subject to CEQA.

Affected Environment

Caltrans Professionally Qualified Staff prepared a *Historic Property Survey Report (HPSR) for the State Route 267 Water Quality Improvement Project, Placer County, California* (November 2005). Appended to the HPSR are the technical studies reports (Archaeological Survey Report and Historical Reources Evaluation Report) completed to document research methodology and the result of an intensive pedestrian survey. As documented in the HPSR, Caltrans staff identified a single cultural resource within the area of potential effects (APE) for the Proposed Project: the "Old" Brockway golf course, a nine-hole course located northwest of the junction of State Route 267 and State Route 28. The APE for the Proposed Project encompasses all areas of direct impact (i.e., ground disturbance) and adjacent areas that might be indirectly affected by project activities.

Upon formal review, Caltrans staff has determined that the golf course is not eligible for inclusion in the National Register under any criteria, and is not a historical resource under CEQA. The State Historical Preservation Office concurred with Caltrans' findings in a letter dated December 2, 2005. No other cultural resources are known to exist within the APE for the Proposed Project.

Environmental Consequences

No California Register eligible historical resources exist within the APE for the proposed project.

Mitigation/Minimization/Avoidance Measure

No mitigation is necessary; however the following measures will be implemented to avoid impacts to buried and/or undiscovered resources.

If cultural materials are discovered during construction, all earth-moving activity within and around the immediate discovery area will be diverted until a qualified archaeologist can assess the nature and significance of the find.

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC) who will then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains will contact the Caltrans Environmental Branch Chief so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 are to be followed as applicable.

Geology and Soils

Regulatory Setting

The following thresholds were extracted from the TRPA Soil Conservation threshold program:

Land Capability districts (LCD) have been determined for all areas within the Tahoe Basin. A land capability is “the level of use” a classification of the Lake Tahoe Basin, California-Nevada; Robert G. Bailey, 1974).

- SC1-The TRPA threshold for soil conservation requires that impervious coverage be in compliance with the coverage coefficients defined in the *Land Capability Classification of the Lake Tahoe Basin California-Nevada, a guide for planning* (Bailey 1974). Additional land coverage is monitored on a project basis and recorded in square feet. Coverage may be utilized directly or by coverage transfers within a related project area. An excess coverage mitigation program is in place to gradually reduce existing land coverage.

- SC2-TRPA policy requires the preservation of existing naturally functioning Stream Environment Zone (SEZ) land in their natural hydrologic condition, the restoration of all disturbed SEZ lands in undeveloped, un-subdivided lands and the restoration of the SEZ

lands that have been identified as disturbed, developed or subdivided to obtain a five percent total increase in the area of naturally functioning SEZ lands.

Affected Environment

The Lake Tahoe Basin is an intermountain basin formed by the faulting of the rocks of the Sierra Nevada to the west and the Carson Range to the east. Lake Tahoe occupies a down-dropped block, or graben, that is bordered by steeply dipping faults. The steep mountains on the east and west shores of Lake Tahoe are predominantly granitic rock and partly metamorphic rock. The northern end of the Basin is covered in volcanic rock of Tertiary age. Much of the southern and western parts of the Basin have been modified by glaciation. Lake Tahoe's outlet, the Truckee River, has been dammed in the past by both glacial ice and volcanic flows.

State Route 267 traverses three soil associations within the project study limits (Figure 6). None of the soil series available within the project study area are listed as hydric soils (U.S. Natural Resource Conservation Service 1995). Soil associations available within the project area are generally morainal (Jabu), or upland (Tahoma, Jorge, and Fugawee) soils (U.S. Natural Resource Conservation Service 1974).

Figure 6: Soil Types Found within Project Vicinity

Environmental Consequences

The Proposed Project will minimize run-off pollution that could enter Lake Tahoe and will therefore have an overall beneficial effect on the existing geology and soils. During construction, there may be some temporary soil disturbance for the construction of the Proposed Project elements. However, these effects are temporary in nature and occur in areas of previous soil disturbance related to highway construction. After the Proposed Project is implemented, soil loss/erosion is expected to decrease.

The Proposed Project should result in reduced soil erosion with implementation of the sedimentation and infiltration basins. The Proposed Project site is not located on unstable land or in an area of known landslides or liquefaction. Impacts to existing geology and soil will be considered significant if the Proposed Project would result in any of the following impacts:

- Subject people or structures to injury or death from: 1.) earthquake; 2.) strong seismic groundshaking; 3.) and seismic-related ground failure, including liquefaction or landslides.
- Result in substantial soil erosion or loss of topsoil.
- Be located on unstable soil or on expansive soil.

Mitigation/Minimization/Avoidance Measures

The following BMP measures shall be followed to adequately minimize any potential soil erosion effects during the Proposed Project.

1. Silt Fence
2. Temporary Fiber Rolls
3. Erosion Control Blanket
4. Check Dams
5. Storm Drain Inlet Protection
6. Stabilized Construction Exit/Entrance

Hazardous Materials

Regulatory Setting

The CEQA Environmental Checklist, provided as Appendix A, includes potential issues that could lead to a significant impact pursuant to CEQA, including creation of a public hazard, emitting hazardous emissions, handling hazardous materials near schools or located on a site that is listed as hazardous by the California Environmental Protection Agency, resulting in a safety hazard near an airport, impairing the implementation of an emergency evacuation plan, or exposing people or structures to wildland fires.

Many state and federal laws regulate hazardous materials and hazardous wastes. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health and land use. Hazardous waste in California is regulated primarily under the authority of the Federal Resource Conservation and Recovery Act (RCRA) of 1976 and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning.

The primary federal laws regulating hazardous materials/wastes are the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). The purpose of CERCLA, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. RCRA provides for “cradle to grave” regulation of hazardous wastes. Other federal laws include:

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety & Health Act (OSHA)
- Atomic Energy Act
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, Executive Order 12088, Federal Compliance with Pollution Control, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

TRPA does not maintain any thresholds for hazardous waste. The TRPA Initial Environmental Checklist (IEC) asks whether or not the project will result in the creation of or increased possibility of exposure to health hazards.

Affected Environment

Soils contaminated with gasoline and diesel fuels are known to exist within the project area. The location of the contamination is at the northeast corner of the State Route 267/28 intersection. The existing yellow traffic markings (thermoplastic and paint) may potentially contain hazardous levels of lead chromate. Lead contaminated soil may exist due to the historical use of leaded gasoline, leaded airline fuels, waste incineration, etc. The areas of primary concern in relation to highway facilities are soils along routes that have had high vehicle emissions due to large traffic volumes, congestion, or stop and go situations, during the time period when leaded gas was in use. For practical purposes, most aerially deposited lead (ADL), due to vehicle emissions would have been deposited prior to 1986. If the project areas was constructed or reconstructed with clean material after 1986, it is likely that the levels of ADL contaminated soil are low. Typically ADL may be found within the top 0.6 m (2 ft) of material in unpaved areas within the highway right of way.

Environmental Consequences

A hazardous waste Initial Site Assessment (ISA) was completed on September 15, 2003. The ISA involved reviewing local, State and Federal databases, regulatory files review and field reviews. The ISA identified the need for a site investigation which in turn identified the following impacts. Soils contaminated with gasoline and diesel fuels exist at the northeast corner of the State Route 267/28 intersection. Aerially Deposited Lead (ADL) is present in less than hazardous levels.

CEQA considerations

The project includes potential exposure to hazardous materials contained within traffic striping and soils. Worker Health and Safety and handling/disposal measures provided below, will ensure that the risk of exposure to hazardous materials is minimized. No significant impacts are anticipated.

TRPA considerations

As stated above, the Initial Environmental Checklist asks whether or not the project will result in the creation of or increased possibility of exposure to health hazards. The project will include provisions to ensure that the potential exposure to health hazards is minimal. These measures are provided below in the next section.

Mitigation/Minimization/Avoidance Measures

Petroleum Contaminated Soil

Project features in potential conflict with contaminated soil will be eliminated or moved if possible. If conflicts cannot be eliminated, then the contaminated soil will be handled in accordance with the contract special provisions. A Health and Safety Plan shall be prepared to address worker safety when working with potentially contaminated soils/groundwater.

Chromium and Lead from Traffic Striping

If striping paint is to be removed or impacted in any manner, sampling and testing of the yellow striping scheduled for removal will be performed to determine the presence of lead and the need for mitigation prior to or during construction if the lead content is above the regulatory thresholds. Due to potentially hazardous levels of chromium and lead in yellow traffic stripes, if removal is included in the project scope, the stripe shall be removed and disposed in accordance with contract special provisions for removal of the yellow stripes and pavement marking. A Lead Compliance Plan and a Health and Safety Plan shall be prepared to address worker safety when working with potentially lead-bearing paint.

Aerially Deposited Lead

The results of soil sampling indicate that lead-impacted soil in the areas investigated does not pose a significant risk to the health of workers performing the construction activities. Further, soil materials excavated to a maximum depth of 0.6 m (2 ft) below grade surface (bgs) may be reused onsite and/or disposed of without restrictions. A Lead Compliance Plan and a Health and Safety Plan shall be prepared to address worker safety when working with lead-bearing soils.

Hydrology and Water Quality

Affected Environment

The Proposed Project is located along State Route 267 from the intersection of State Route 28 and State Route 267 to Stewart Way in North Lake Tahoe near Kings Beach. State Route 267 is located in the Griff Creek watershed and Griff Creek is not on the 303 (d) list for impairments. The termination point of State Route 267 at State Route 28 is located in an intervening zone. Intervening zones are generally found between the individual watersheds around the lake and drain directly to the lake without first entering streams. This project does have some of its storm water draining to Griff Creek. The land within the project area is of moderate terrain, privately owned and less densely developed. The project area, however, is located within the urban area.

Table 7 contains the average precipitation and snowfall levels and maximum and minimum temperatures for Tahoe City located 12.9 km (8 mi) away from the project site.

Table 7: Average precipitation, snowfall and high and low temperatures for Tahoe City

Month	Precipitation (In)	Snowfall (In)	Maximum Temperature (F)	Minimum Temperature (F)
January	6.1	43.8	37	19
February	5.4	38.0	39	19
March	4.2	35.5	42	23
April	2	15.2	50	26
May	1.2	3.8	59	32
June	0.8	0.2	68	37
July	0.3	0.0	77	42
August	0.3	0.0	77	42
September	0.6	0.3	68	37
October	1.8	2.4	57	32
November	3.8	16.2	46	26
December	5.4	33.5	39	21

Soils descriptions have been taken from the Soil Survey maps for the Tahoe Basin Area California and Nevada area, USDA Soil Conservation Service, issued March 1974. (now, called the National Resource Conservation Service [NRCS]). The first description given is a broad association followed by a more detailed description. The NRCS also has classified each soil type into one of four Hydrologic Soil Groups (HSG) based on runoff potential and infiltration capability. These HSG classifications are labeled as A, B, C, and D. HSG A soils have low runoff potential and high infiltration rates even when thoroughly wetted, and an infiltration range of 5.1 to 20 cm per hour, (2 to 8 in per hour). HSG B soils have moderate infiltration rates when thoroughly wetted of 1.3 to 2.5 cm per hour (0.5 to 1 in per hour). HSG C soils have low infiltration rates when thoroughly wetted of 0.4 to 0.6 cm per hour (0.15 to 0.25 in per hour). HSG D soils have high runoff potential and low infiltration rates when thoroughly wetted of <0.1 to <0.2 cm per hour (,<0.05 to <0.09 in per hour).

Soil in this project area, Lake Tahoe Basin, is described as a Inville-Jabu association: Nearly level to moderately well drained to somewhat excessively drained gravelly to extremely stony

loamy coarse sands that are deep to very deep over a pan. The 3[1]classes of soils lying with in the association have a HSG B, C, and D classification.

Regional Hydrology

This project is located on the north side of Lake Tahoe and passes through one intervening zone near the intersection of SR 267 and 28. Intervening zones are generally found between the individual watersheds around the lake and drain directly to the lake without first entering streams. More generally, the project area resides in the Griff Creek watershed, 1 intervening zones, and adjacent to 1 major creek (Griff Creek).

Office of Water Programs' web site, Water Quality Planning Tool, indicates that the project area is located in hydrologic sub-area (HSA) 634.20; hydrologic sub-areas are larger than watersheds and cover a geographic area representing part of a surface drainage basin or distinct hydrologic feature such as a reservoir, lake, etc. HSA 634.20 covers an area of approximately 61415 acres with an average annual rainfall of 53.4 inches. Caltrans maintains SR 267 in this HSA. The storm water runoff from the HSA, including the project area, flows into Lake Tahoe that is located in the HSA 634.3.

Lake Tahoe Basin

The Lake Tahoe Basin lies east of the Sierra Nevada Range crest along the California-Nevada border, 145 km (90 mi) northeast of Sacramento and 64 km (40 mi) southwest of Reno. Tahoe is located in a sub alpine watershed dominated by nutrient-poor granitic and volcanic soils and is a complex ecosystem with 63 individual watersheds and 52 intervening zones around the lake draining directly to the lake without first entering streams. Elevations within the Basin vary from about 1900 m (6233 ft) at lake level to more than 3048 m (10,000 ft) along the crest of the mountains. Lake Tahoe is the world's tenth deepest lake at 505 m (1657 ft) with a mean depth of 313 m (1027 ft) The drainage area is 812 km^2 (313 ft^2) with a lake surface of 501 km^2 (193 ft^2) two-thirds of which is located in California and one-third in Nevada. Lake Tahoe's large volume of 156 km^3 and its relatively small watershed are largely responsible for the lake's 770-year hydraulic retention time. The mean annual concentration of nitrate–nitrogen in the euphotic[2] zone is only 4-5 ug/L and total hydrolysable–phosphorus is 2-4 ug/L, secchi depths are from 15 to >25 m (49 to 82 ft) depending on season and year, and chlorophyll ranges from 0.25 to 0.75 ug/L.

[1] JhC; Jabu stony sand loam, moderately fine subsoil, variant, 2 to 9 percent slopes, JwD; Jorge-Tahoma very stony sandy loams, 2 to 15 percent slopes, and Gr; Gravelly alluvial land.

[2] The upper layers of a body of water into which sufficient light penetrates to permit growth of green plants.

Increased nutrient and sediment loadings are stimulating algal growth and increasing the concentration of fine suspended particles that decrease clarity in the lake. Measurements of algal productivity and water clarity show an accelerated rate of eutrophication in Lake Tahoe since the late 1960s, although there is interannual variation, the long term trend is statistically significant; and indeed this decline in the clarity of the lake is the underlying basis for nearly all major policy decisions regarding water quality in the Tahoe Basin. Some scientists have concluded that if the buildup of nutrients in the lake is not reversed within the next ten years, the costs of solving the problem will be so great and the impacts so extreme that they will exceed the currently available capacity for resolution.

Perhaps the greatest change to Lake Tahoe in the last four decades has been the enhanced transport of sediment from the watershed and the loss of about 30 cm per year of clarity in Lake Tahoe's waters. Algal growth and increased concentration of fine suspended particles, because of Increased nutrient and sediment loadings, are well documented. While nitrogen (N) was the primary limiting nutrient to the lake's algal population prior to the 1980s, atmospheric deposition of N directly onto the lake surface has led to a fundamental shift from nitrogen-stimulation to an almost exclusive phosphorus-stimulation. Phosphorus (P) is a unique pollutant in that it has low solubility but may have detrimental effects on water quality at quite low concentrations. There is considerable concern about P being lost from soils and transported to nearby streams and lakes. Several chemical properties of P have important implications for the potential loss of P to surface water.

Phosphorus in soil is almost entirely associated with soil particles. When soil particles are carried to river or lake, P will be contained in this sediment. When the sediment reaches a body of water it may act as a sink or a source of P in solution. In either case, it is a potential source of P that may eventually be released.

Phosphorus in soil is associated more with fine particles than coarse particles. When soil erosion occurs, more fine particles are removed than coarse particles, causing sediment leaving a soil through erosion to be enriched in P.

Since phosphorus (P) is typically transported along with the suspended solids load, the importance of sediment control and erosion mitigation become highly evident. Major pathways through which P is transported to the lake include surface water and groundwater discharge, atmospheric deposition, and shoreline erosion.

Table 8 illustrates the relatively large annual P contribution from direct runoff into the lake; for comparison, the N contribution is also presented. The percentages in the table are initial estimates and further study is needed to more accurately quantify pollutant contributions of each

source. Atmospheric deposition of P is estimated to account for 9.7 metric tones (MT) with direct loading from the watershed contributing 27.4 MT.

Table 8: Relative annual water and nutrient contributions to Lake Tahoe

Source	Flow into Lake Tahoe (%)	Total Phosphorus (%)	Total Nitrogen (%)
Stream Runoff	57	29	20
Direct Runoff (from intervening zones)	7	34	10
Groundwater	<1	9	14
Shoreline Erosion	Not Applicable	1	<1
Precipitation (Atmospheric Deposition)	36	27	56

Regulatory Setting

Several federal, state, and local agencies have jurisdiction over the project site. Important agencies and statutory authorities relevant to water quality as it relates to this project are outlined below.

Clean Water Act

In 1972, the Federal Water Pollution Control Act was amended making the discharge of pollutants to the waters of the United States from any point source unlawful, unless the discharge is in compliance with an NPDES permit. The Federal Water Pollution Control Act was subsequently amended in 1977 and was renamed as the Clean Water Act (CWA). The Clean Water Act (CWA) as amended by the Water Quality Act of 1987 states that storm water discharges are point source discharges and establishes a framework for regulating municipal and industrial storm water discharges under the NPDES program. Important sections of the Act are as follows:

- Sections 303 and 304 provide for water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for any federal project that proposes an activity, which may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of the act.
- Section 402 establishes the National Pollutant Discharge Elimination System (NPDES), a permitting system for the discharge of any pollutant (except for dredge or fill material) into

waters of the United States. In California, the Federal EPA delegated the NPDES permitting program to the State Water Resources Control Board and their respective Regional Water Quality Control Boards (RWQCB), and is discussed in detail later.

- Section 404 establishes a permit program for the discharge of dredge or fill material into waters of the United States. This permit program is administered by US Army Corps of Engineers (USACE).
- The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

Porter-Cologne Water Quality Act

The State of California's Porter-Cologne Water Quality Act provides the basis for water quality regulation within California. The Act requires a "Report of Waste Discharge" for any discharge of waste (liquid, solid, or otherwise) to land or surface waters that may impair a beneficial use of surface or groundwater of the state.

State Water Resources Control Board and Regional Water Quality Control Boards

The State Water Resources Control Board (SWRCB) administers water rights, water pollution control, and water quality functions throughout the state, while the RWQCB is responsible for the protection of beneficial uses of water resources within its jurisdiction and uses planning, permitting and enforcement authorities to meet this responsibility.

Tahoe Regional Planning Agency

In the late 1960s, the governors and lawmakers in California and Nevada approved a bi-state compact that created a regional planning agency to oversee development at Lake Tahoe. In 1969, the United States Congress ratified the agreement and created the Tahoe Regional Planning Agency (TRPA).

The Compact, as revised in 1980, gave TRPA authority to adopt environmental quality standards, called thresholds, and to enforce ordinances designed to achieve the thresholds. In 1987, the TRPA Governing Board adopted the 1987 Regional Plan for the Lake Tahoe Basin that includes Goals and Policies, a Code of Ordinances, and Plan Area Statements. The Code of Ordinances regulates, among other things, land use, density and rate of growth, land coverage, excavation, and scenic impacts. These regulations are designed to bring the Region into conformance with the threshold standards established for, among other resources, water quality.

TRPA is also designated by California, Nevada, and the USEPA as the area wide water quality-planning agency under Section 208 of the federal Clean Water Act. It adopted a bi-state plan, currently entitled Water Quality Management Plan for the Lake Tahoe Region (208 Plan). Most

appropriate provisions of the 208 Plan, however, are incorporated into the Water Quality Control Plan (Basin Plan) for the North Lahontan Basin.

Environmental Improvement Program

The Environmental Improvement Program (EIP) is a management tool that TRPA uses to restore and maintain Lake Tahoe's famed water clarity. The EIP is a strategy to restore, preserve, and enhance the natural environment of the Lake Tahoe Region; it defines restoration needs and sets environmental goals or thresholds to protect the natural environment within the Region. The objective of the Tahoe EIP is to meet nine categories of environmental standards for the Tahoe region that were established by a regional working group in the 1980s which include numeric and measurable targets. Water quality is one of the nine resource categories recognized by EIP as requiring threshold standards necessary to protect and preserve the natural environment of the Region; these threshold levels are listed in Appendix A. Water quality threshold standards are established since steep slopes, erodible soils, and a short growing season make the Lake Tahoe Basin acutely sensitive to human activities. Development practices which may have little impact elsewhere can cause severe erosion in the Tahoe Basin, increasing sediment and nutrient loads to Lake Tahoe and seriously affecting Lake Tahoe's water quality. The level of algal growth in the lake is limited by the availability of nutrients; the concentration of nutrients in the lake at present is extremely low, however, correcting the lake's imbalanced nutrient budget is a difficult task since Lake Tahoe does not benefit from the flushing action of runoff that benefits other water bodies. Lake Tahoe has a hydraulic residence time of approximately 700 years; as a result, removal of additional inputs such as nutrients is nearly impossible. Therefore, controlling the sources of nutrients is paramount to reversing trends towards degradation of Lake Tahoe's water quality. In addition to a nutrient loading, water clarity may be greatly impacted by accumulation of suspended particulate matter in Lake waters. These suspended particles efficiently scatter light, resulting in clarity loss.

Water Quality Projects are essential components of the EIP strategy to preserve and restore Lake Tahoe's water clarity. The key objective of these water quality projects, EIP Water Quality Projects, is to eliminate or reduce the sources of eutrophication3 and degradation of water quality, and to properly convey and treat runoff that has been negatively impacted principally by urbanization and roadway networks. Recent research has shown that a significant percentage of urban runoff is convened directly to the lake within intervening zones4. Theses zones present a

[3] The process by which a body of water becomes enriched in dissolved nutrients (as phosphates) that stimulate the growth of aquatic plant life usually resulting in depletion of dissolved oxygen.

[4] Intervening zones are generally found between the individual watersheds around the lake and drain directly to the lake without first entering streams.

major challenge to water quality managers, as there is limited area to treat urban runoff in these locations.

Surface water quality in the project area is assessed as part of the environmental review for this project. This section reports the findings of this review and identifies the beneficial uses and applicable water quality standards of the water bodies potentially impacted by the project. This section also compares these water quality standards to the typical Caltrans freeway runoff and identifies the pollutants of concern that might exceed the applicable water quality standards.

Receiving Surface Water Bodies

The storm water runoff from the two project areas either flows directly to the lake or removed by several creeks and waterways, as mentioned in section 2, and discharged into the Lake Tahoe located on the south and southeast side of the project area in the 634.3 HAS or into the Truckee River HAS 634.20. The remainder of this report focuses on the potential impacts of the storm water runoff from the project area on the water quality and the beneficial uses of Lake Tahoe.

Receiving Water Beneficial Uses

Beneficial uses are the basis of the water quality protection under the Lahontan Region Water Quality Control Plan (Basin Plan). Every surface water body within the jurisdiction of Lahontan Regional Water Quality Control Board is designated with a set of beneficial uses that are protected by appropriate water quality objectives. The beneficial uses for Lake Tahoe include MUN, AGR, GWR, NAV, REC-1, REC-2, COMM, COLD, WILD, BIOL, MIGR, SPWN. The Beneficial uses for the Truckee River include MUN, AGR, IND, GWR, FRESH, POW, REC-1, REC-2, COMM, COLD, WILD, RARE, MIGR, SPWN. Definitions of these beneficial uses are found in Appendix G of this Initial Study.

The water quality of the Lake Tahoe is generally good and supports the beneficial uses. Although nutrient concentrations are very low in the lake at present, relatively small nutrient loadings can seriously affect Lake Tahoe’s water quality. This is mainly due to the lake’s large size compared to its small watershed. Lake Tahoe has a very long residence time, thus the flushing action of precipitation and runoff that benefits many other lakes cannot be relied upon to preserve Lake Tahoe; for that reason, one may employ the approximation that sediments and nutrients discharged to Lake Tahoe remain there forever, either suspended in the water column or settled on the bottom. Increased nutrient loading rates exert their full effect through a gradual buildup of nutrient concentrations over many years. Thus, preventing future increases in erosion rates will not be enough to protect the water quality of Lake Tahoe and a major reduction in the quantities of nutrients reaching Lake Tahoe is required.

Water Quality Objectives

The Porter-Cologne Water Quality Control Act defines water quality objectives as "… the limits or levels of water quality constituents or characteristics which are established for reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area."

There are two forms of objectives: narrative and numerical. Narrative objectives present general description of water quality that must be attained through pollutant control measures and watershed management. They also serve as the basis for the development of detailed numerical objectives. Numerical objectives typically describe pollutant concentrations, physical/chemical conditions of the water itself and toxicity of the water to aquatic organisms. Numerical objectives represent the maximum amount of a given measurable pollutant that can remain in a water body without causing an adverse affect on the organisms residing in the aquatic system, on people consuming those organisms or water, and the current beneficial uses. The technical bases for the region's water quality objectives include extensive biological, chemical and physical partitioning information reported in the scientific literature, national water quality criteria, studies conducted by other agencies and information gained from local environmental and discharge monitoring.

Federal water quality objectives are dictated by section 303(d) of the Clean Water Act and EPA water quality planning and management regulations, which require States to identify waters that do not meet, or are not expected to meet, water quality standards even after technology-based or other required controls are in place. These water bodies are considered water quality-limited and are reported by States in their 303(d) list. Lake Tahoe is a 303(d) listed body of water and the pollutants of concern are nutrients and sediment/siltation. The Truckee River is 303(d) listed for sediment/Siltation.

Highway Runoff Assessment

Highway storm water runoff contains a variety of characteristic contaminants. During storm events, rainwater first collects atmospheric pollutants and, upon impact, gathers roadway deposits. This runoff can be highly polluted and negatively impact the receiving waters including sedimentation, eutrophication, and accumulation of pollutants in sediments and benthos organisms, and destruction of native species. The Caltrans Storm Water Research and Monitoring Program have collected over 60,000 water quality data points for the past several years from 180 Highway runoff-monitoring sites. The majority of this data is from highways in Southern California. Description of these sites and summary of the monitoring data can be found in the Annual Data Summary (CTSW-RT-03-065) that are submitted annually to the State Water Quality Control Board by the Caltrans Storm Water Monitoring Program. The Caltrans highway

runoff value is the average concentration that is calculated from the highway water quality monitoring data. These average values are listed in Table 9.

Table 9: Caltrans storm water runoff quality

Constituent	Unit	Average Storm Water Runoff Concentration from Highways
Biological Oxygen Demand	Mg/L	15.5
Chemical Oxygen Demand	Mg/L	86
pH	pH units	7.4
Temperature	C	14
Total Dissolved Solids	Mg/L	118
Total suspended Solids	Mg/L	160
Turbidity	NTU	60
Litter/trash	lb/acre	20.5
Metals (dissolved)		
Aluminum	Ug/L	155
Arsenic	Ug/L	2.8
Cadmium	Ug/L	0.6
Chromium	Ug/L	3.1
Copper	Ug/L	15.8
Lead	Ug/L	7.3
Mercury	Ug/L	Non-Detect
Nickel	Ug/L	6.3
Selenium	Ug/L	Non-Detect
Silver	Ug/L	0.6
Zinc	Ug/L	89.5
Nutrients		
Ammonia	Mg/L	1.8
Nitrate	Mg/L	1.6
Nitrite	Mg/L	0.2
Ortho-phosphate	Mg/L	0.2
Total Kjeldahl Nitrogen	Mg/L	2.9
Total Phosphorus	Mg/L	0.3
Oil and Grease	Mg/l	14.5
Microbiological		
Fecal Coliform	MPN/100ml	8,170
Total Coliform	MPN/100ml	30,500
Toxicity	% Survival	Insufficient monitoring data
Pesticides		
Chlorpyrifos	Ug/L	0.6
Diazinon	Ug/L	0.7
Glyphosphate	Ug/L	39.6

Water Quality Assessment Checklist

The purpose of this checklist is to reflect the potential impacts of the project on various water quality factors. A "NO" answer in the first column indicates the project will not affect a particular item. When appropriate a discussion is provided following the checklists to support these determinations.

- *Physical Effects:*
  The following table discusses the physical effects and whether the Proposed Project directly or indirectly affects or may alter any of the following physical attributes of the project area.

Table 10: Potential Impacts on Physical Effects

Physical Effect	Yes or No	If Yes, Is it significant?	Is it significant following mitigation?
1- Site topography	No		
2- Vegetal cover	Yes	Yes	No
3- Drainage or runoff patterns	No		
4- Exposure of soils to erosion	Yes	Yes	No
5- Floodplain area	No		
6- Discharge of natural surface waters	No		
7- Flow, direction of flow, or level of ground waters	Yes	No	
8- Beneficial uses of water resources in the area	No		

Areas within the final right-of-way, where construction will take place, will be cleared of vegetation. Erosion and increased turbidity and sedimentation may occur during and immediately following construction phase of the project. However, this can be lessened through appropriate management practices and construction timing. There will be a slight increase in the impervious surface area due to widening of the shoulders, left-turn pockets etc. The contribution of the runoff volume from this project to the overall runoff volume from the HSA is insignificant.

Water Quality Parameters:

It is difficult to come up with a quantitative answer to these questions. However, with a reasonable degree of certainty, the answer to most of the questions in Table 11 is no. The significance of the additional aerially deposited particles that otherwise would not have been washed off and carried by the roadway runoff to the receiving water bodies is minimal. It does not seem probable that the Proposed Project will adversely impact any of these water quality parameters.

Table 11 discusses water quality parameters and whether the Proposed Project may directly or indirectly negatively impact or alter any of these water quality parameters.

Table 11: Potential Impacts on Water Quality Parameters

Water Quality Parameter	Yes or No	If Yes, Is it significant?	Is it significant following mitigation?
Temperature	No		
Total dissolved minerals	Yes	No	
Suspended solids	Yes	No	
pH	No		
Dissolved oxygen	No		
Rates of chemical or biochemical reactions	No		
Toxicity to indigenous aquatic biota	No		
Nutrient concentrations, e.g. NO_3, PO_4	Yes	No	
Oxidation-reduction potential	No		

Discussion of Impacts

Based on the highway storm water runoff data collected by the Caltrans Storm Water Research and Monitoring Program, pollutants that are expected to be found in runoff from the project include conventional constituents[*], hydrocarbons, metals, microbial agents, nutrients, volatile and semi volatile organics, pesticides, herbicides. Pollutants are usually deposited on the roadway as a result of fuel combustion processes, lubrication system losses, tire and brake wear, transportation load losses, paint from infrastructure, and atmospheric fallout. Sources of specific pollutants are outlined in Table 12.

It is well documented that there is a direct and positive relationship between vehicular activities and the concentration of these pollutants in the storm water runoff. The projected traffic volumes will not increase as a result of this project; therefore, mass loading into the receiving water bodies due to vehicular activity on the traveled way is not expected to increase either as a result of this project.

[*] Conventional constituents include BOD, Ca, chlorine residual, COD, TDS, TOC, TSS and TVSS, etc.

Table 12: Highway runoff constituents and their primary sources.

CONSTITUENTS	PRIMARY SOURCES
Particulates	Pavement wear, vehicles, atmosphere, maintenance activities
Nitrogen, Phosphorus	Atmosphere, roadside fertilizer application
Lead	Auto exhaust, tire wear
Zinc	Tire wear, motor oil, grease
Iron	Auto body rust, steel highway structures, moving engine parts
Copper	Metal plating, bearing and bushing wear, moving engine parts, brake lining wear, fungicide and insecticide application
Cadmium	Tire wear, insecticide application
Chromium	Metal plating, moving engine parts, brake lining wear
Nickel	Diesel fuel and gasoline, lubricating oil, metal plating, bushing wear, brake lining wear, asphalt paving
Manganese	Moving engine parts
Sulphate	Roadway bed, fuel
Petroleum	Spills, leaks or blow-by of motor lubricants, antifreeze and hydraulic fluids, asphalt leachate
PCBs	Atmospheric deposition

Environmental Consequences

The increased volume of storm water runoff from the added project's impervious surface area to the entire Hydrologic Sub area is very small and the project is not expected to increase the projected traffic volume; therefore, the pollutant loads from the project's traveled way would be negligible. However, due to Lake Tahoe's very long hydraulic residence time, relatively small nutrient loadings can seriously affect Lake Tahoe's water quality and storm water treatment measures are required to reduce nutrients and sediments (fine sediments) reaching Lake Tahoe. There is limited room for water quality treatment basins along State Route 89. In response to meeting the numeric effluent limits, Caltrans has ongoing pilot studies in the basin for evaluation of standard water treatment industry chemical media and the associated operations and maintenance cost. If proven successful these pilots may be adopted by Caltrans as an approved permanent treatment control for use in the Lake Tahoe Basin.

Potential for Substantial Downstream Erosion or Siltation

Although the increased volume of runoff from the added project's impervious traveled way is indeed very small, the added peak flows may cause or contribute to down stream erosion. Care must be taken to consider and incorporate appropriate infiltration and/or peak flow attenuation devices to minimize down stream erosion problems. The practices outlined in the SWMP and

Statewide Storm Water Practice Guidelines ensure that certain minimum design elements be incorporated into projects to maintain or improve water quality. The key elements are as follows:

- Prevent Downstream Erosion – design of drainage facilities to avoid causing or contributing to downstream erosion. Drainage outfalls, when appropriate, will discharge to suitable control measures.
- Stabilize Disturbed Soil Areas – design would incorporate stabilization of disturbed areas (when appropriate) with seeding, vegetative or other types of cover.
- Maximize Existing Vegetative Surfaces – design would limit footprints of cuts and fills to minimize removal of existing vegetation.
- The project as planned would therefore not create a substantial increase in downstream erosion or siltation.

Potential for Creation of Substantial Additional Sources of Polluted Runoff

The Proposed Project is not expected to increase the traffic volume in the project area and the impact of additional aerially deposited particles, due to increased shoulder and left-turn pocket surface areas, on the receiving water quality is not expected to be significant. As a result, with the implementation of technologically advanced and alternative treatment devices (vaults), the project as planned will not result in the creation of a significant source of additional polluted runoff.

There is an inherent water quality benefit in the wider shoulders as proposed by this project when compared to the existing conditions. Roadway runoff water quality is expected to improve since the presence of 3.6-m (11.8 ft) shoulders will decrease the response time of emergency teams to accidents and spills, thereby reducing the potential for spilled material being discharged into the lake. Emergency vehicles will be able to utilize the shoulders in response to accidents and spills whereas the existing shoulders may require that traffic be cleared in order to allow access for emergency vehicles. The shoulders will also provide space for disabled vehicles to be moved such that they do not block traffic and thereby allowing highway speeds to be maintained. This reduces pollutants produced by vehicles as a result of stop-and-go traffic.

Water Quality Standards in the Lake Tahoe Basin

The Proposed Project is an EIP Water Quality project that by its nature proposes improvements to current roadway networks to reduce negative impacts on the Basin’s environment; more specifically the Lake’s water clarity which has become the primary measure of the Basin’s environmental health. The Proposed Project, when properly implemented, will 1) treat storm

water runoff, 2) stabilize slopes, and 3) construct treatment BMPs all which will help achieve the pelagic Lake Tahoe clarity threshold of winter Secchi depth of 33.4 meters. The project as proposed will accomplish the following objectives:

- The project reduces loads of sediments and nutrients delivered to Lake Tahoe.
- The project includes the installation of BMPs throughout the project area.
- The project includes an effort towards restoration of existing disturbed areas beyond mitigation required to offset Proposed Project impacts.
- The project includes an Operation and Maintenance commitment to insure effectiveness of compliance measures over time.

Using an adaptive management strategy, the EIP Water Quality projects should include monitoring efforts. Monitoring completes the feedback loop necessary by indicating project performance and justifies changes in course of action to improve performance and to meet water quality objectives more quickly and efficiently.

A recent publication by the Legislative Analyst's Office claims that it has been difficult for the Legislature to evaluate the performance of the Tahoe EIP because numeric measures for evaluating the effect of individual EIP projects on environmental quality have generally been lacking. In other words, the Legislature has not been appraised of what improvements in environmental quality have resulted, or will result, from the state's investment[5], especially from the capital improvement projects[6], proposed by successive budgets. As a result, the Legislative Analyst's Office has recommended that outcome-oriented, numeric, performance measures to be developed to enable legislative review of Tahoe EIP's effectiveness in meeting environmental goals.

Given all of the considerations described above, the project as proposed will improve the storm runoff water quality as compared to the existing conditions and if monitoring efforts are included, this EIP project will provide feedback for adjustment and performance evaluation.

[5] In 1997, the state signed memoranda of agreement with federal government, Nevada, the Washoe Tribe, and the Tahoe Regional Planning Agency (TRPA) committing to implement and fund the Tahoe EIP. TRPA projects cost almost $1.5 billion for the Tahoe EIP over a 20-year period.

[6] There are four categories of TRPA projects; capital improvement, science and research, technical assistance, and operation and maintenance. Capital improvement projects make up the bulk (90 %) of expenditures of TRPA projects, at least during the initial phases.

Mitigation/Minimization/Avoidance Measures

During the construction phase of this water quality project compliance with the permit requires the appropriate selection and deployment of both structural and non-structural Best Management Practices (BMPs) that achieve the performance standards of Best Available Technology economically achievable/Best Conventional Pollutant Control Technology (BAT/BCT) to reduce or eliminate storm water pollution.

Adherence to the following is recommended to reduce and avoid receiving water pollution as a result of construction activities and/or operation of this section of State Route 267 in Placer County.

1. The project shall adhere to the conditions of the Caltrans Statewide NPDES Permit CAS # 000003, (Order # 99-06-DWQ), issued by the State Water Resources Control Board.

2. Construction projects with a disturbed area of more than one acre or by request of a Regional Water Quality Control Board require a Caltrans approved Storm Water Pollution Prevention Plan (SWPPP) containing project specific effective erosion and sediment control measures. These measures must address soil stabilization practices, sediment control practices, tracking control practices, and wind erosion control practices. In addition, the project plan must include non-storm water controls, waste management and material pollution controls.

3. The disturbed soil area appears to exceed 0.4 hectares and it is anticipated that a Storm Water Pollution Prevention Plan (SWPPP) level of temporary pollution controls will be specified for the project; Standard Special Provision 07-345 therefore shall be included in the PS&E to address these temporary construction water pollution control measures.

4. As directed by Caltrans' Storm Water Management Plan (SWMP) and the Project Planning and Design Guide (PPDG) an evaluation of the project using the most recent approved evaluation guide is essential in determining if the incorporation of permanent storm water runoff treatment measures shall be considered for this project.

5. If a SWPPP is specified, then a Notification of Construction (NOC) shall be submitted to the Lahontan Regional Water Quality Control Board at least 30 days prior to the start of construction.

Recreation

Affected Environment

The project area includes a variety of recreational opportunities associated with the natural landscape of the area and the Lake Tahoe Basin. The Tahoe Rim Trail (TRT) is a recreational resource located around Lake Tahoe. The TRT is 241 km (150 mi) long and has trailheads on either side of State Route 267 (as well as many others in the Tahoe Basin). In addition, there is the Old Brockway Golf Coarse on the southwest side of State Route 267, a bike trail along the roadway, and snow parks in the area such as the Northstar-At-Tahoe Ski Area.

The following thresholds were extracted from the TRPA Recreation threshold program:

- R1-It shall be the policy of the TRPA governing body in development of the regional plan to preserve and enhance the high quality recreational experience, including preservation of high quality undeveloped shore zone and other natural areas. In developing the regional plan, the staff and governing body shall consider provisions for additional access, where lawful and feasible, to the shore zone and high quality undeveloped areas for low density recreational uses.

- R2-It shall be the policy of the TRPA governing body in development of the regional plan to establish and ensure a fair share of the total basin capacity for outdoor recreation is available to the general public.

Environmental Consequences

The Old Brockway Golf Coarse on the southwest side of the State Route 267 is expected to have strip takes and the placement of two treatment basins within its current boundaries. One of the treatment basins could narrow the existing fariway. However, little impact is expected to land use patterns.

Mitigation/Minimization/Avoidance Measures

In order to decrease the potential effects to the scenic resources along the TRT due to construction of the Proposed Project, the mitigation measures listed in the Aesthetics section of this document shall be implemented.

Utilities and Service Systems

Affected Environment

Existing utilities are found throughout the project limits. Every effort will be made to minimize utility conflicts and relocations. Relocation of utilities that are in conflict with the project, including adjustment of manholes, will be the responsibility of the utility owner. The following utility companies have facilities within the project limits:

- Southwest Gas Corporation (Gas)
- Sierra Pacific Power Company (Electric)
- North Tahoe Public Utility District (Water and Sewer)
- AT&T (Telephone)
- Charter Communications (Cable TV)

It is anticipated that a potential conflict exists with an existing gas line at a proposed rock wall location. A potential conflict exists with proposed drainage work and an existing gas line along the west side of State Route 267 from approximately the State Routes 28/267 junction to North Avenue. A utility relocation for the gas line may be required at these two locations. Most relocation work will be to gas and underground telephone caused by the installation of drainage inlets, basins and pipes on the left side of the road way. Few utility poles are anticipated to be impacted and only two electrical cabinets and one cable box will be impacted. In addition several water and sewer manholes and lids will require adjustments due to the rehabilitation of the highway.

Monitoring wells have been installed at each proposed infiltration basin site to determine seasonal high groundwater levels. Groundwater monitoring will conducted in the spring of 2006. Monitoring will be performed for one year only if seasonal rainfall is 80% of normal precipitation. If precipitation is not 80% of normal, an additional year of groundwater monitoring will be required per the Lahontan Regional Water Quality Control Board. If groundwater is within 3 m (10 feet) of a basin invert, the Regional Water Quality Control Board will be consulted to determine an appropriate course of action. Bioswales are a viable alternative.

It was concluded that the proposed project would have a beneficial effect to the existing drainage systems in which the infiltration basins were to be constructed.

Environmental Consequences

It was concluded that the proposed project would have a beneficial effect to the existing drainage systems in which the infiltration basins were to be constructed.

Mitigation/Minimization/Avoidance Measures

The proposed project will not result in any potentially adverse impacts to the existing utilities and service systems.

Chapter 3 Cumulative Impacts

Cumulative Impacts: CEQA Analysis

According to the State CEQA Guidelines, a cumulative impact pertains to two or more individual effects, which when assessed together are considerable or which compound or increase other environmental impacts. The cumulative impact from several projects would be the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (Section 15355).

Caltrans Storm Water Quality Improvement Projects Planned on State Route 267
There are currently similar storm water quality improvement projects planned or completed on State Route 267 and State Route 28 near this project. This project is compatible with the below listed projects:

State Planning

- PLA 267, EA 03-2A090, Post Miles 6.7 to 7.3 (KP 10.8 to 11.8) (This project was completed in 2004).
- PLA 267, EA 03-1C9720, Post Miles 7.4 to 8.6 (KP 11.9 to 13.8).
- PLA 267, EA 03-0E990, Post Miles 3.3 to 6.8 (KP 5.3 to10.9) (Slope stabilization project from Broadway summit north).
- PLA 28, EA 03-2A940, Post Miles 0.8 to 9.4 (KP 1.3 to 15.0) (includes intersection improvements at the Route 28/267 Junction).
- PLA 28,EA 03-29090, Post Miles 10.2 to 11.0 (KP 16.6 to 17.7).

Regional Planning

The proposed project is consistent with the current Regional Transportation Plan.

Local Planning

The TRPA's Kings Beach Community Plan covers a few hundred feet of Placer 267 near the intersection with State Route 28; however, this project is not proposing anything that conflicts with the community plan.

Transportation Concept Report

The Tahoe Improvement Program website includes the latest information on Caltrans projects in the Basin. Additionally, Caltrans "State Route Transportation Concept Reports (TCRs)" were reviewed for information regarding future plans for State routes within the north Lake Tahoe area. Caltrans' TCRs document the planning strategies of the long-range plans identified by the regional transportation agencies and metropolitan transportation organizations within a given state highway corridor and establishes a 20-year planning concept. As state highway routes often pass through several regional planning agency jurisdictions, the TCR assimilates the regional strategies into one corridor specific planning document.

The short-term future route concept improvements identified for this segment of State Route 267 in *State Route 267 Transportation Concept Report* (Caltrans, 2001) includes widening the existing shoulders to 2.4 m (8 ft) to allow for additional snow removal storage on the highway and to allow slower vehicles temporary use of the shoulder to permit faster vehicles the opportunity to pass. The ultimate concept improvement is to construct a truck-climbing lane in the northbound direction over Brockway Summit. Additionally the concept includes minor safety and operational improvements as required, as well as drainage improvements and erosion control EIP mandated improvements.

Caltrans projects within the Lake Tahoe North Shore area

The following is a summary of proposed Caltrans projects within the Lake Tahoe north shore area:

- **PLA-28**: State Route 28 extends17.7 km (11.0 mi) from State Route 89 at Tahoe City to King's Beach, where it intersects State Route 267 and travels east to the California/Nevada border. It is the primary highway linking the north Tahoe communities of Tahoe City, Lake Forest, Carnelian Bay, Tahoe Vista, and King's Beach.

A proposed Caltrans project to reduce soil erosion, comply with storm water pollution control regulations for the Tahoe Basin, and improve drainage systems in order to improve

the quality of runoff water is currently in the design stages. This project was divided into four segments. A conditional permit has been received for the portion from the California/Nevada Stateline to Chipmunk Avenue (EIP #762), as the remainder of the project (EIP #s 762, 788, 798, and 998) is currently under TRPA review. The Proposed Project proposes to rehabilitate the storm water treatment systems on State Route 28, except in the area of King's Beach (EIP #998). A separate Placer County water quality improvement project is currently in planning stages for the segment between the State Route 267/28 intersection east to Chipmunk Street in King's Beach (EIP #s 787 and 10060).

Future route concept improvements identified for Route 28 include minor safety and operational improvements to reduce accidents and provide the highest level of service on the existing facility, to encourage greater public transit use, and to support local plans for Transportation Management Strategies such as shuttle services, and transit incentives.

- **PLA-267:** State Route 267 is a north-south undivided two-lane conventional highway 20.4 km (12.7 mi) in length, running from near Truckee in Nevada County to State Route 28 in King's Beach. Within the north Lake Tahoe Basin, State Route 267 extends 5.2 km (3.23 mi) from Brockway Summit and descends 288 m (945 ft) at a 6.79 percent grade to its intersection with State Route 28 in King's Beach. State Route 267 is a primary highway linking the Truckee area to the communities of north Lake Tahoe.

A Caltrans project to reduce soil erosion, comply with storm water pollution control regulations for the Tahoe Basin, and improve drainage systems in order to improve the quality of runoff water was recently completed between Brockway Summit and Stewart Way north of Kings Beach. A Final Mitigated Negative Declaration (CEQA) was adopted for this project in August 2002 and began construction in the 2003 season (EIP #14). The project did not have direct impacts to sensitive plants, rare plant communities, SEZs, wetlands, or jurisdictional waters of the U.S. The project had temporary, minor, indirect impacts to wildlife species due to woody vegetation removal, but did not significantly alter the species richness, relative abundance, or pattern of vegetation adjacent to State Route 267.

Biological Resources

This section evaluates cumulative effects associated with the Proposed Project to biological resources. The study area analyzed in this evaluation is the "north shore" area of Lake Tahoe, roughly bounded by the Route 28/89 Junction on the west, the California-Nevada State line to the east, the waters of Lake Tahoe on the South, and by the hydrographic Lake Tahoe Basin boundary on the north. This area was selected for analysis because it's cumulative

development in this area that would be supported by the proposed action, although it is recognized that impacts in this area have the potential to contribute to impacts within the entire Lake Tahoe Basin. A variety of quantitative and qualitative methods such as Arc View GIS files, Regional, Community and County General Plans, review of planning websites and documents and project environmental documents were used in this analysis. Quantifiable impacts to biological resources were generally not yet available for the majority of the proposed projects located in the north Lake Tahoe area as they have not yet been constructed. Because of this limitation, the following analysis relies on information from the known landowners, growth pressures, and projects in the area, and from the known plans and policies of the local jurisdictions to make a *qualitative* assessment regarding the significance of the proposed project's contribution of impacts to those of other actions in the north Lake Tahoe area.

The proposed project is not expected to result in significant cumulative impacts to biological resources because project related direct and potential indirect impacts to these resources are expected to be relatively minor in scale, especially when considered within the context of the EIP Program. Special status biological resources are not expected to be significantly adversely affected, and impacts to these resources either do not exceed TRPA thresholds, address TRPA thresholds (water quality), or fall within exceptions to these thresholds. In addition, project specific avoidance, minimization, and compensation measures shall be implemented to reduce direct and indirect, and therefore cumulative impacts. Sensitive species shall be protected by avoidance or with limited operating periods, and habitats in the construction corridor shall be replaced or restored through a comprehensive re-vegetation and landscaping program. Implementation of these measures shall occur prior to or concurrent with the construction of the Proposed Project to the greatest degree feasible in order to reduce the temporal impact of the habitat disturbance.

The proposed project is listed as a "Water Quality" EIP project by TRPA. To qualify as an EIP project, the Proposed Project must directly relate to a respective threshold program and contribute to the attainment of that threshold. Typically, EIP projects are intended to result in an environmental benefit. Considering the current project within this context, cumulative impacts to biological resources due to the Proposed Project are not expected to contribute to negative environmental trends.

Vegetation

Although some vegetation removal will occur as result of highway widening and drainage improvement activities in the course of this project, the removal of woody vegetation (trees and shrubs) shall be the minimum required for construction. A total of 16 trees are proposed to be removed, 5 trees are considered as “old growth” (>76 cm (30 in) DBH) by TRPA. The loss of this vegetation is in conformance with TRPA goals and policies (large trees may be removed for large public utilities projects if TRPA finds there is no reasonable alternative), is not considered as “substantial” tree removal, and is not expected to alter the species richness, relative abundance, or pattern of vegetation adjacent to State Route 267 or within the context of the larger north Lake Tahoe area. Therefore, it is not expected to result in a significant cumulative impact to vegetation.

No direct or indirect impacts to sensitive plant species or rare plant communities are expected as a result of this project, and therefore, this project will not contribute to cumulative impacts to these resources within the north Lake Tahoe area.

Cumulative impacts to native vegetation, including sensitive plants and SEZ vegetation within the project area due to an increase in noxious weed spread as a result of the Proposed Project are possible, but not likely given that relatively few noxious weeds are known from the project area and by implementing avoidance strategies and design features for reducing the spread of noxious weeds as described in the “noxious weed assessment” and in the Avoidance, Minimization, Compensation that follows. In general, the amount of disturbance associated with shoulder widening and drainage improvement activities is relatively low, given the limited extent of impacts adjacent to the existing roadway, so the habitat changes due to construction activities (reduced shade and soil cover) that could increase noxious weed growth are also relatively low.

Wildlife and Fisheries

The project would not cause an increase in urban growth or result in additional habitat fragmentation, and existing connectivity between wildlife habitats available along State Route 267 will not be altered. Potential movement of wildlife species across the highway system may be temporarily affected by construction activities. Considering that State Route 267 and associated development presently acts as a barrier to wildlife movement, additional permanent structures that may adversely impact wildlife movement along or across State Route 267 (new roadways or highway access, right of way fencing, guardrail, median barrier, etc.) are not proposed as part of this project, and as a result project construction is not expected to negatively affect this already existing condition. Although infrequent noises

louder than background traffic noise may occur, it is expected that construction noise impacts will be comparable to traffic noise and should not result in significant noise-related disturbance to nesting birds, roosting bats or other wildlife species, if present.

The project is not expected to permanently adversely impact the movement of fish and other aquatic organisms along or across State Route 267. Potential movement of aquatic organisms will not be affected by construction activities because drainage improvements will not occur until there is a no surface water flow condition. No new barriers to aquatic migration are expected to occur as a result the Proposed Project.

Similarly, the removal of vegetation adjacent to State Route 267 is unlikely to significantly contribute to adverse cumulative impacts to wildlife species, including migratory birds and special status or management indicator species, due to it being located immediately adjacent to and within the highway right of way. The cumulative loss of woody vegetation caused by this project, in combination with the losses incurred from other past, present, and potential future projects is unlikely to result in the non-attainment of TRPA environmental threshold carrying capacities for managed wildlife species in the north Lake Tahoe area, and is therefore not expected to result in a significant cumulative impact to wildlife.

Roadway/Construction Activities

The Proposed Project is being constructed to collect and treat the roadway storm-water runoff, rehabilitate the existing roadway and drainage system, and widen shoulders. The Proposed Project does not incorporate features that will increase the level of service or operating speed of the facility and is not a capacity increasing project. According to Caltrans' State Transportation Concept Report there are no plans for increasing operational improvements for State Route 267. Based on functional classification, traffic volumes, and maintenance service levels, State Route 267 will remain a 2-lane conventional highway on its existing alignment (the ultimate future concept for State Route 267 includes a truck climbing lane over Brockway Summit). In the future, State Route 267 will be rehabilitated as necessary to repair storm damage and to achieve minor operational and safety improvements as necessary. In addition, the project area has been disturbed with homes, public facilities, roads, and recreational uses. These urban developments are likely to be retained in the future.

In assessing potential impacts from roadway construction activities and roadway construction noise, one must assume that (1) wildlife have largely acclimated to ambient traffic noise, or (2) wildlife has not acclimated to ambient traffic noise resulting in a decrease in habitat values (and use by wildlife) bordering the highway. In either case, any temporary increase in noise due to construction would be incremental and not have the same magnitude of effect on

a wildlife population, as would a novel high noise level in an otherwise quiet habitat area. Based on these assumptions, adverse impacts to wildlife as a result of the Proposed Project are generally temporary in duration or limited to the disturbance of marginal wildlife habitat, and are considered to be less than significant.

As previously mentioned, projects qualifying for TRPA's EIP program, such as the Proposed Project, are intended to result in an environmental benefit and directly relate to a respective threshold program and its contribution to the attainment of that threshold. A number of EIP projects are proposed within the north Lake Tahoe area that are expected to have direct beneficial impacts to wildlife and fisheries resources. Cumulative adverse impacts to biological resources in the north Lake Tahoe area as a result of the proposed State Route 267 water quality improvement and highway rehabilitation project are potentially offset by the cumulative beneficial impacts to biological resources as a result of the same proposed Route 267 project (water quality improvements) and associated project specific mitigation, and in combination environmentally beneficial EIP projects already constructed or proposed to be conducted in the north Lake Tahoe area.

Socio-economics

There are numerous Caltrans Tahoe Basin EIP projects scheduled concurrently with the State Route 267 EIP project for construction.

There are also a greater number of smaller EIP projects listed in the Caltrans EIP Delivery Plan for the Tahoe Basin. Many of these projects involve water treatment and scenic road improvements. A determination of the level socioeconomic impact from the proposed project needs to also take into consideration the cumulative impacts of related projects such as those listed below and others. The California Environmental Quality Act (CEQA) has a higher bar for determining the significance of socioeconomic related impacts

The State of Nevada Department of Transportation (NDOT) and the Incline Village Improvement District also have projects scheduled over the next two seasons which entail extensive in-lane construction activity. Projects that could involve cumulative construction related impacts to circulation and access in the Tahoe Basin include:

- EIP project #122, Incline Village Tourist Water Quality, a 4.8 km (3 mi) long project in the Incline Village area along State Route 28; Lead Agency Wash County

- EIP project #787, Kings Beach Roadway Intersection Sidewalk & Bicycle Trail, Placer County, State Route 28, KP 15.9 – 16.5 (PM 9.88 – 10.23); Lead Agency Placer County 2007 –2009.

- EIP project #10156, Ponderosa Ranch To Mount Rose Hwy Improvements: 8 km (5 mi) long project on State Route 28 east of the North Stateline; Lead Agency NDOT

- Incline Village General Improvement District Project: Sewer Line Project 5.6 km (3.5 mi) south from Lakeshore Blvd/State Route 28 to Sand Harbor State Park, 24/7 lane closure 04/01 – 06/01 2006.

The overlapping of proposed construction projects in the immediate and greater project area will be a continuing concern. The degree of economic impact to the Tahoe Basin may largely depend on the way the related projects are scheduled and staged.

Lake Tahoe Basin Regional Communication Guidelines/Transportation Management Plan

In order to address community involvement within the unique social and environmental context of the Lake Tahoe Basin, Caltrans has developed the Lake Tahoe Basin Communication Guidelines Plan. The guidelines put forth strategies for development of a public participation plan for individual projects. These strategies while geared toward the major Lake Tahoe region EIP projects are pertinent to the State Route 267 Water Quality Improvement project because of the “related project” activity.

These guidelines as well as the Caltrans District 03 Lake Tahoe Basin Regional Transportation Management Plan (TMP) are expected to be utilized to help minimize construction related impacts as part of the final Community Impact Assessment for the project. Essential objectives included in the Lake Tahoe Basin Regional TMP include:

- Provide accurate and timely information to the public.

- Minimize traffic delays while maximizing public and worker safety during construction.

- Minimize impacts to businesses, residences, schools, public services, and special events during construction.

- Provide design and instructional information regarding traffic management to the project engineer, resident engineer, and project specific Standard Special Provisions (SSPs) to be included in the project contract.

- Ensure that no more than 30 minutes of cumulative corridor delay will occur.

Because of the extensive varied interests and the environmental complexity of the Lake Tahoe Basin more than a routine public information and community involvement campaign will be necessary for the project. Since the most important compensation measure regarding impacts to businesses and the traveling public along the busiest portions of the impacted areas will be early notification and coordination, it is important that business and other community interests are aware of the scope and nature of the project. Contractors, who are a fundamental point of public contact, particularly those involved in traffic control, will need to have a heightened awareness in this unique working environment.

This project will improve the operation and safety of the highway. The vast majority of capital outlay for the project is for water treatment purposes. There aspects of the project that can give reasons for any of the individual community groups to support it in some degree. A simple and important purpose of a public information campaign is to dispel incorrect information and rumors that are often circulated.

There is an opportunity for long-term advanced notice and coordination with the public and the business community.

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Appendix A CEQA Environmental Checklist

The Environmental Checklist and discussion of potential significant adverse impacts was completed in accordance with Section 15063(d)3 of the California Environmental Quality Act Guidelines to determine if the Proposed Project may have any significant adverse impact on the environment not previously discussed in the FMND/IS adopted in 2002. The CEQA impact levels include potentially significant impact, less than significant impact with mitigation, less than significant impact and no impact.

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
I. Aesthetics. Would the project:				
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?		X		
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X
II. Agriculture Resources. In determining whether impacts to agriculture resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				X
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:				
a) Conflict with or obstruct implementation of the applicable air quality plan?				X
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?				X

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?				X
d) Expose sensitive receptors to substantial pollutant concentrations?				X
e) Create objectionable odors affecting a substantial number of people?				X
IV. Biological Resources. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?				X
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?				X
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?			X	
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?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provision of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X
V. Cultural Resources. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?				X

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?				X
c) Directly or indirectly destroy a unique paleontological resource or site of unique geologic feature?				X
d) Disturb any human remains, including those interred outside of formal cemeteries?				X
VI. Geology and Soils. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				X
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.				X
ii) Strong seismic ground shaking?				X
iii) Seismic-related ground failure, including liquefaction?				X
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geological 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?				X
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?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
VII. Hazards and Hazardous Materials. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
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?				X
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?				X
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?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X
VIII. Hydrology and Water Quality. Would the project:				
a) Violate any water quality standards or waste discharge requirements?				X
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 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)?				X
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?			X	

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
d) Substantially alter the existing drainage pattern of the site or area, including 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?			X	
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?				X
f) Otherwise substantially degrade water quality?				X
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?				X
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				X
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?				X
j) Inundation by seiche, tsunami, or mudflow?				X
IX. Land Use and Planning. Would the project:				
a) Physically divide an established community?				X
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?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X
X. Mineral Resources. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
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?				X

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XI. Noise. Would the project result in:				
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?				X
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				X
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?				X
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?				X
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?				X
XII.Population and Housing. Would the project:				
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)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X
XIII. Public Services. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection?				X
b) Police protection?				X

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
c) Schools?				X
d) Parks?				X
e) Other public facilities?				X
XIV. Recreation.				
a) Would the project 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?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X
XV. Transportation/Traffic. Would the project:				
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?				X
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?				X
c) Results 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?				X
d) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e) Result in inadequate emergency access?				X
f) Result in inadequate parking capacity?				X
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				X
XVI. Utilities and Service Systems. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X

Potential Impacts	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
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?				X
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?				X
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
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?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?				X
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X
XVII. Mandatory Findings of Significance.				
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?				X
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.)				X
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				X

Appendix B Tahoe Regional Planning Agency Initial Environmental Checklist

For

The Initial Determination of Environmental Impact

Assessor Parcel Number(s): State Route 267 in Placer County

I. PROJECT NAME AND DESCRIPTION: (use additional sheets, if necessary)

This project is being proposed by Caltrans because of the Department's obligation to comply with the Lahontan Regional Water Quality Control Board National Pollution Discharge Elimination System permit (Board Order number 99-06-DWQ) and to meet the State of California's commitment to the EIP effort. As a result this responsibility, Caltrans is proposing to take action to treat roadway storm water runoff to the maximum extent practicable, using current technology, before the storm water runoff reaches tributaries of Lake Tahoe.

Background Information: The project Change Request to split EA 1C970 into two separate projects has been approved. The changes are summarized as follows:

EA 1C971 (***current project***) limits extend from PM 8.7 to 9.9/ Stewart Way to State Route 28. This project is programmed for construction in 2008.

EA 1C972 limits are from PM 7.3 to 8.7/near the Tahoe Rim Trail Head Parking area to Stewart Way. This is the portion of EA 2A090 (completed in the summer of 2004) that was deleted when bids for construction came in too high. A consultant will repackage the old PS&E as well as prepared a Supplemental Environmental Document for the changes in scope. Pilot chemical dosing sites are planned (activated poly-chloride-aluminum is proposed as a treatment chemical). This project is programmed and slated for construction in 2006.

Project Description of current project/Details:

- Caltrans proposes to provide storm water quality improvement measures including infiltration basins, sand trap detention basins, sand trap drainage inlets, bio-filtration swales, berms, dikes, gutters, and other soil stabilization measures.
- Drainage system upgrades, such as new or larger culverts and drainage inlets, will be necessary to augument the aforementioned Best Management Practices.
- The existing pavement will be rehabilitated and will include a pavement overlay.
- 2.4 m (8 foot) shoulders will be added, where feasible, to provide Class II bike lanes on State Route 267.
- Retaining walls will be built to minimize excavations, vegetation removal, and

Stream Environment Zone (SEZ)/Riparian encroachment.

- Operational improvements will be added to the highway, including left-turn pockets at Commonwealth Drive and Kingswood Drive.
- The existing soft coverage near the highway shoulders will be revegetated.

The project area (from north to south) is along both sides of State Route 267 beginning at Stewart Way and terminates at State Route 28. Additional right-of-way will be required for the installation of the proposed drainage facilities and roadway objectives.

II. ENVIRONMENTAL IMPACTS:

The following questionnaire will be completed by the applicant based on evidence submitted with the application. **All "yes" and "no, with mitigation" answers will require further written comments.**

1. Land

Will the proposal result in?

a. Compaction or covering of the soil beyond the limits allowed in the land capability or Individual Parcel Evaluation System (IPES)?

Yes	No	No, with Mitigation	Data Insufficient
	X		

b. A change in the topography or ground surface relief features of site inconsistent with the natural surrounding conditions?

Yes	No	No, with Mitigation	Data Insufficient
X			

c. Unstable soil conditions during or after completion of the proposal?

Yes	No	No, with Mitigation	Data Insufficient
X			

d. Changes in the undisturbed soil or native geologic substructures or grading in excess of 5 feet?

Yes	No	No, with Mitigation	Data Insufficient
X			

e. The continuation of or increase in wind or water erosion of soils, either on or off the site?

Yes	No	No, with Mitigation	Data Insufficient
		X	

f. Changes in deposition or erosion of beach sand, or changes in siltation, deposition or erosion, including natural littoral processes, which may modify the channel of a river or stream or the bed of a lake?

Yes	No	No, with Mitigation	Data Insufficient
	X		

g. Exposure of people or property to geologic hazards such as earthquakes, landslides, backshore erosion, avalanches, mud slides, ground failure, or similar hazards?

Yes	No	No, with Mitigation	Data Insufficient
	X		

2. Air Quality

Will the proposal result in?

a. Substantial air pollutant emissions?

Yes	No	No, with Mitigation	Data Insufficient
	X		

b. Deterioration of ambient (existing) air quality?

Yes	No	No, with Mitigation	Data Insufficient
	X		

c. The creation of objectionable odors?

Yes	No	No, with Mitigation	Data Insufficient
	X		

d. Alteration of air movement, moisture or temperature, or any change in climate, either locally or regionally?

Yes	No	No, with Mitigation	Data Insufficient
	X		

e. Increased use of diesel fuel?

Yes	No	No, with Mitigation	Data Insufficient
X			

3. Water Quality

Will the proposal result in?

a. Changes in currents, or the course or direction of water movements?

Yes	No	No, with Mitigation	Data Insufficient
X			

b. Changes in absorption rates, drainage patterns, or the rate and amount of surface water runoff so that a 20 yr. 1 hr. storm runoff (approximately 1 inch per hour) cannot be contained on the site?

Yes	No	No, with Mitigation	Data Insufficient
	X		

c. Alterations to the course or flow of 100-year flood waters?

Yes	No	No, with Mitigation	Data Insufficient
	X		

d. Change in the amount of surface water in any water body?

Yes	No	No, with Mitigation	Data Insufficient
			X

e. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?

Yes	No	No, with Mitigation	Data Insufficient
X			

f. Alteration of the direction or rate of flow of groundwater?

Yes	No	No, with Mitigation	Data Insufficient
	X		

g. Change in the quantity of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?

Yes	No	No, with Mitigation	Data Insufficient
X			

h. Substantial reduction in the amount of water otherwise available for public water supplies?

Yes	No	No, with Mitigation	Data Insufficient
	X		

i. Exposure of people or property to water related hazards such as flooding and/or wave action from 100-year storm occurrence or seiches?

Yes	No	No, with Mitigation	Data Insufficient
	X		

j. The potential discharge of contaminants to the groundwater or any alteration of groundwater quality?

Yes	No	No, with Mitigation	Data Insufficient
	X		

4. Vegetation

Will the proposal result in?

a. Removal of native vegetation in excess of the area utilized for the actual development permitted by the land capability/IPES system?

Yes	No	No, with Mitigation	Data Insufficient
	X		

b. Removal of riparian vegetation or other vegetation associated with critical wildlife habitat, either through direct removal or indirect lowering of the groundwater table?

Yes	No	No, with Mitigation	Data Insufficient
X			

c. Introduction of new vegetation that will require excessive fertilizer or water, or will provide a barrier to the normal replenishment of existing species?

Yes	No	No, with Mitigation	Data Insufficient
	X		

d. Change in the diversity or distribution of species, or number of any species of plants (including trees, shrubs, grass, crops, micro flora and aquatic plants)?

Yes	No	No, with Mitigation	Data Insufficient
X			

e. Reduction of the numbers of any unique, rare or endangered species of plants?

Yes	No	No, with Mitigation	Data Insufficient
			X

f. Removal of stream-bank and/or backshore vegetation, including woody vegetation such as willows?

Yes	No	No, with Mitigation	Data Insufficient
X			

g. Removal of any native live, dead or dying trees 30 inches or greater in diameter at breast height (dbh) within TRPA's Conservation or Recreation land use classifications?

Yes	No	No, with Mitigation	Data Insufficient
			X

h. A change in the natural functioning of an old growth ecosystem?

Yes	No	No, with Mitigation	Data Insufficient
	X		

5. Wildlife

Will the proposal result in?

a. Change in the diversity or distribution of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms, insects, mammals, amphibians or microfauna)?

Yes	No	No, with Mitigation	Data Insufficient
			X

b. Reduction of the number of any unique, rare or endangered species of animals?

Yes	No	No, with Mitigation	Data Insufficient
			X

c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?

Yes	No	No, with Mitigation	Data Insufficient
	X		

d. Deterioration of existing fish or wildlife habitat quantity or quality?

Yes	No	No, with Mitigation	Data Insufficient
			X

6. Noise

Will the proposal result in?

a. Increases in existing Community Noise Equivalency Levels (CNEL) beyond those permitted in the applicable Plan Area Statement, Community Plan or Master Plan?

Yes	No	No, with Mitigation	Data Insufficient
	X		

b. Exposure of people to severe noise levels?

Yes	No	No, with Mitigation	Data Insufficient
		X	

c. Single event noise levels greater than those set forth in the TRPA Noise Environmental Threshold?

Yes	No	No, with Mitigation	Data Insufficient
	X		

7. Light and Glare

Will the proposal:

a. Include new or modified sources of exterior lighting?

Yes	No	No, with Mitigation	Data Insufficient
	X		

b. Create new illumination that is more substantial than other lighting, if any, within the surrounding area?

Yes	No	No, with Mitigation	Data Insufficient
	X		

c. Cause light from exterior sources to be cast off - site or onto public lands?

Yes	No	No, with Mitigation	Data Insufficient
			X

d. Create new sources of glare through the siting of the improvements or through the use of reflective materials?

Yes	No	No, with Mitigation	Data Insufficient
	X		

8. Land Use

Will the proposal:

a. Include uses that are not listed as permissible uses in the applicable Plan Area Statement, adopted Community Plan, or Master Plan?

Yes	No	No, with Mitigation	Data Insufficient
	X		

b. Expand or intensify an existing non-conforming use?

Yes	No	No, with Mitigation	Data Insufficient
	X		

9. Natural Resources

Will the proposal result in?

a. A substantial increase in the rate of use of any natural resources?

Yes	No	No, with Mitigation	Data Insufficient
	X		

b. Substantial depletion of any non-renewable natural resource?

Yes	No	No, with Mitigation	Data Insufficient
	X		

10. Risk of Upset

a. Does the proposal involve a risk of an explosion or the release of hazardous substances including, but not limited to, oil, pesticides, chemicals, or radiation in the event of an accident or upset conditions?

Yes	No	No, with Mitigation	Data Insufficient
		X	

b. Will the proposal involve possible interference with an emergency evacuation plan?

Yes	No	No, with Mitigation	Data Insufficient
	X		

11. Population

Will the proposal:

a. Alter the location, distribution, density, or growth rate of the human population planned for the Region?

Yes	No	No, with Mitigation	Data Insufficient
	X		

b. Include or result in the temporary or permanent displacement of residents?

Yes	No	No, with Mitigation	Data Insufficient
	X		

12. Housing

Will the proposal affect existing housing, or create a demand for additional housing?

Yes	No	No, with Mitigation	Data Insufficient
	X		

13. Transportation/Circulation

Will the proposal result in?

a. Generation of 100 or more new daily vehicle trip ends (DVTE)?

Yes	No	No, with Mitigation	Data Insufficient
	X		

b. Changes to existing parking facilities, or demand for new parking?

Yes	No	No, with Mitigation	Data Insufficient
	X		

c. Substantial impact upon existing transportation systems, including highway, transit, bicycle or pedestrian facilities?

Yes	No	No, with Mitigation	Data Insufficient
X			

d. Alterations to present patterns of circulation or movement of people and/or goods?

Yes	No	No, with Mitigation	Data Insufficient
	X		

e. Alterations to waterborne, rail or air traffic?

Yes	No	No, with Mitigation	Data Insufficient
	X		

f. Increase in traffic hazards to motor vehicles, bicyclists, or pedestrians?

Yes	No	No, with Mitigation	Data Insufficient
	X		

14. Public Services

Will the proposal have an unplanned effect upon, or result in a need for new or altered governmental services in any of the following areas?

a. Fire protection?

Yes	No	No, with Mitigation	Data Insufficient
	X		

b. Police protection?

Yes	No	No, with Mitigation	Data Insufficient
	X		

c. Schools?

Yes	No	No, with Mitigation	Data Insufficient
	X		

d. Parks or other recreational facilities?

Yes	No	No, with Mitigation	Data Insufficient
	X		

e. Maintenance of public facilities, including roads?

Yes	No	No, with Mitigation	Data Insufficient
	X		

f. Other governmental services?

Yes	No	No, with Mitigation	Data Insufficient
	X		

15. Energy

Will the proposal result in?

a. Use of substantial amounts of fuel or energy?

Yes	No	No, with Mitigation	Data Insufficient
	X		

b. Substantial increase in demand upon existing

sources of energy, or require the development of new sources of energy?

Yes	No	No, with Mitigation	Data Insufficient
	X		

16. Utilities

Except for planned improvements, will the proposal result in a need for new systems, or substantial alterations to the following utilities:

a. Power or natural gas?

Yes	No	No, with Mitigation	Data Insufficient
	X		

b. Communication systems?

Yes	No	No, with Mitigation	Data Insufficient
	X		

c. Utilize additional water which amount will exceed the maximum permitted capacity of the service provider?

Yes	No	No, with Mitigation	Data Insufficient
	X		

d. Utilize additional sewage treatment capacity which amount will exceed the maximum permitted capacity of the sewage treatment provider?

Yes	No	No, with Mitigation	Data Insufficient
	X		

e. Storm water drainage?

Yes	No	No, with Mitigation	Data Insufficient
	X		

f. Solid waste and disposal?

Yes	No	No, with Mitigation	Data Insufficient
	X		

17. Human Health

Will the proposal result in?

a. Creation of any health hazard or potential health hazard (excluding mental health)?

Yes	No	No, with Mitigation	Data Insufficient
	X		

b. Exposure of people to potential health hazards?

Yes	No	No, with Mitigation	Data Insufficient
	X		

18. Scenic Resources/Community Design

Will the proposal:

a. Be visible from any state or federal highway, Pioneer Trail or from Lake Tahoe?

Yes	No	No, with Mitigation	Data Insufficient
X			

b. Be visible from any public recreation area or TRPA designated bicycle trail?

Yes	No	No, with Mitigation	Data Insufficient
X			

c. Block or modify an existing view of Lake Tahoe or other scenic vista seen from a public road or other public area?

Yes	No	No, with Mitigation	Data Insufficient
	X		

d. Be inconsistent with the height and design standards required by the applicable ordinance or Community Plan?

Yes	No	No, with Mitigation	Data Insufficient
	X		

e. Be inconsistent with the TRPA Scenic Quality Improvement Program (SQIP) or Design Review Guidelines?

Yes	No	No, with Mitigation	Data Insufficient
			X

19. Recreation:

Does the proposal:

a. Create additional demand for recreation facilities?

Yes	No	No, with Mitigation	Data Insufficient
	X		

b. Create additional recreation capacity?

Yes	No	No, with Mitigation	Data Insufficient
	X		

c. Have the potential to create conflicts between recreation uses, either existing or proposed?

Yes	No	No, with Mitigation	Data Insufficient
	X		

d. Result in a decrease or loss of public access to any lake, waterway, or public lands?

Yes	No	No, with Mitigation	Data Insufficient
	X		

20. Archaeological/Historical

a. Will the proposal result in an alteration of a significant archaeological or historical site, structure, object or building?

Yes	No	No, with Mitigation	Data Insufficient
	X		

b. Will the proposal result in adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object?

Yes	No	No, with Mitigation	Data Insufficient
	X		

c. Does the proposal have the potential to cause a physical change that would affect unique ethnic cultural values?

Yes	No	No, with Mitigation	Data Insufficient
	X		

d. Will the proposal restrict historic or pre-historic
religious or sacred uses within the potential impact area?

Yes	No	No, with Mitigation	Data Insufficient
	X		

21. Findings of Significance.

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish population to drop below self-

Yes	No	No, with Mitigation	Data Insufficient
	X		

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 or Nevada history or prehistory?

b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time, while long-term impacts will endure well into the future.)

Yes	No	No, with Mitigation	Data Insufficient
	X		

c. Does the project have impacts that are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant?)

Yes	No	No, with Mitigation	Data Insufficient
			X

d. Does the project have environmental impacts which will cause substantial adverse effects on human being, either directly or indirectly?

Yes	No	No, with Mitigation	Data Insufficient
	X		

III CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this initial evaluation to the best of my ability, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Jody L Brown — 27 March 2006

Jody L. Brown — Date

WRITTEN COMMENTS:

Section 1b: The landscape architect will work with a district biologist and TRPA to aid in blending the road improvements into the surrounding environment.

Section 1c: During and immediately after construction there will be bare soils that could have the potential to erode. However, Caltrans implements Best Management Practices (BMPs) that decrease the potential for soils to become mobile or unstable.

Section 1d: The proposed project has several roadway objectives that will require grading of previously disturbed cuts or fills, as well as new undisturbed soils.

Section 1e: It is expected that BMPs will be able to mitigate any possible erosion from newly disturbed areas for roadway improvements. In addition, the proposed infiltration basins will decrease the erosion that is currently taking place from storm water runoff.

Section 2e: There will be a short-term increase in diesel fuel use during the construction phase of this project.

Section 3a: During construction, an intermittent stream and tributary to Snow Creek may have to be diverted. However, this would depend on whether there is an unseasonably high flow when work in the channel is required. Also, some naturally occurring ground water and spring water may have to be intercepted and diverted so that it does not mix with storm water runoff in the proposed treatment basins/swales.

Section 3e: Surface waters near the project area should benefit from the treatment of the highway storm water runoff.

Section 3g: The basins will be taking roadway storm water runoff, treating the water, and then letting it infiltrate into the ground. It is not expected that these basins will significantly affect the quantity of the groundwater.

Section 4(b & f): Caltrans engineers will attempt to avoid riparian areas or SEZs. However, it is nearly impossible to avoid all effects on riparian areas when working on or expanding culverts that convey perennial or intermittent streams. Further studies will be necessary to ascertain effects on riparian areas/SEZs.

Section 4(d): Some tree removal will be necessary to implement the proposed water quality improvement features. However, re-vegetation plan will also be developed to decrease the impact on vegetation in the area.

Section 6(b): Some increase in noise levels can be expected during construction. As a result, Caltrans Project Management and Traffic Management Engineers will work with the TRPA and other stakeholders to determine the hours of operation that will help reduce the noise effect from construction equipment on adjacent residents. There will not be a permanent increase in the ambient noise level as a result of this project.

Section 10(a): During construction, there is always a risk of a hazardous waste spill or release of hazardous materials. However, Caltrans and its contractors implement BMP's to aid in avoiding these potential issues.

Section 13(c): During construction of this project, traffic delays can be expected. Caltrans traffic safety engineers will meet with our partner transportation planning agencies, most notably the North and South Lake Tahoe Transportation Management Agencies (TMAs) and TRPA, to create a Traffic Management Plan that best addresses traffic circulation during construction.

Section 18(a & b): The proposed project will be visible to travelers on State Route 267 and State Route 28 from Lake Tahoe and State/Private recreational areas.

The studies that will be required for the environmental document(s) will answer the questions that were marked data insufficient and will be submitted with subsequent permit applications.

IV DETERMINATION (TO BE COMPLETED BY TRPA)

On the basis of this evaluation:

a. The Proposed Project could not have a significant effect on the environment and a finding of no significant effect shall be prepared in accordance with TRPA's Rules of Procedure.

Yes	No

b. The Proposed Project could have a significant effect on the environment, but due to the listed mitigation measures that have been added to the project, could have no significant effect on the environment and a mitigated finding of no significant effect shall be prepared in accordance with TRPA's Rules and Procedures.

Yes	No

c. The Proposed Project may have a significant effect on the environment and an environmental impact statement shall be prepared in accordance with this chapter and TRPA's Rules of Procedure.

Yes	No

Signature of Evaluator Date

Title of Evaluator

Appendix C Title VI Policy Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
OFFICE OF THE DIRECTOR
1120 N STREET
P. O. BOX 942873
SACRAMENTO, CA 94273-0001
PHONE (916) 654-5266
FAX (916) 654-6608
TTY (916) 653-4086

Flex your power!
Be energy efficient!

January 14, 2005

TITLE VI
POLICY STATEMENT

The California Department of Transportation under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, and age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

WILL KEMPTON
Director

"Caltrans improves mobility across California"

Appendix D Mitigation Monitoring Program

A letter will be sent to the Caltrans Construction Resident Engineer (RE) regarding all design features and mitigation measures described in this document. The RE will be responsible for ensuring that all mitigation measures will be implemented throughout construction. The section below of this Initial Study includes all mitigation measures for the proposed project.

Table C1: Summary of Mitigation Measures and Monitoring Plan

Mitigation Measure	Completion Date	Responsible Party	Monitor	Frequency/Action Plan
The basin side slopes shall be revegetated per the revegetation plan prepared by the Caltrans Landscape Office. The plan will address: • Erosion control • Tree rmoval • Revegetation • Non-nature elements	Revegetation will occur after the completion of the road project.	Caltrans Office of Landscape Architecture, Contractor and Caltrans RE	Caltrans Biologist	The Caltrans Office of Landscape Architecture will prepare a revegetation plan. Portions of the plan will occur during the construction of the road project, i.e. hydroseeding of native plant material. A separate planting contract will occur after the construction of the road project is complete. This project will emphasize the placement of containerized native plants.
HW-1: Petroleum Contaminated Soil in potential conflict with contaminated soil will be eliminated or moved if possible. If conflicts cannot be eliminated, then the contaminated soil will be handled in accordance with the contract special provisions. A Health and Safety Plan shall be prepared to address worker safety when working with potentially contaminated soils/groundwater. HW –2: Chromium and Lead from Traffic Striping. If striping paint is to be removed or impacted in any manner, sampling and	Throughout the duration of construction activity	Contractor and Caltrans RE	Caltrans RE	The Caltrans RE will have daily oversight of the project site.

Mitigation Measure	Completion Date	Responsible Party	Monitor	Frequency/Action Plan
testing of the yellow striping scheduled for removal will be performed to determine the presence of lead and the need for mitigation prior to or during construction if the lead is above regulatory thresholds. Due to potentially hazardous levels of chromium and lead in yellow traffic stripes, if removal is included in the project scope, the stripe shall be removed and disposed in accordance with contract special provisions for removal of the yellow stripes and pavement marking. A Lead Compliance Plan and a Health and Safety Plan shall be prepared to address worker safety when working with potential lead-bearing paint. HW-3 Aerial Deposited Lead. A Lead Compiance Plan and a Health and Safety Plan shall be prepared to address worker safety when working with lead-bearing soils.				

Table D1: Summary of Biological Mitigation Measures

Mitigation Measure	Responsible for Implementation	Notes	Completion Date
AV-01: Establish ESAs	Contractor and Caltrans Resident Engineer	ESAs and onsite BMPs implemented as a first order of work. No work or operation of equipment will occur within ESA areas in all construction seasons	ESAs remain in field until all project construction activities are complete
WQ-01: Restrict timing of in-stream activities	Contractor and Caltrans Resident Engineer	Construction activities will be permitted below the OHWM of drainages only between May15th and October 15th, (subject to stream conditions and permit restrictions) in all construction seasons.	October 15th of final construction season
WQ-02: Minimize disturbance to creek	Contractor and Caltrans Resident Engineer	Minimize disturbance to drainages in all construction	Stream banks stabilized by October 15th of each construction season

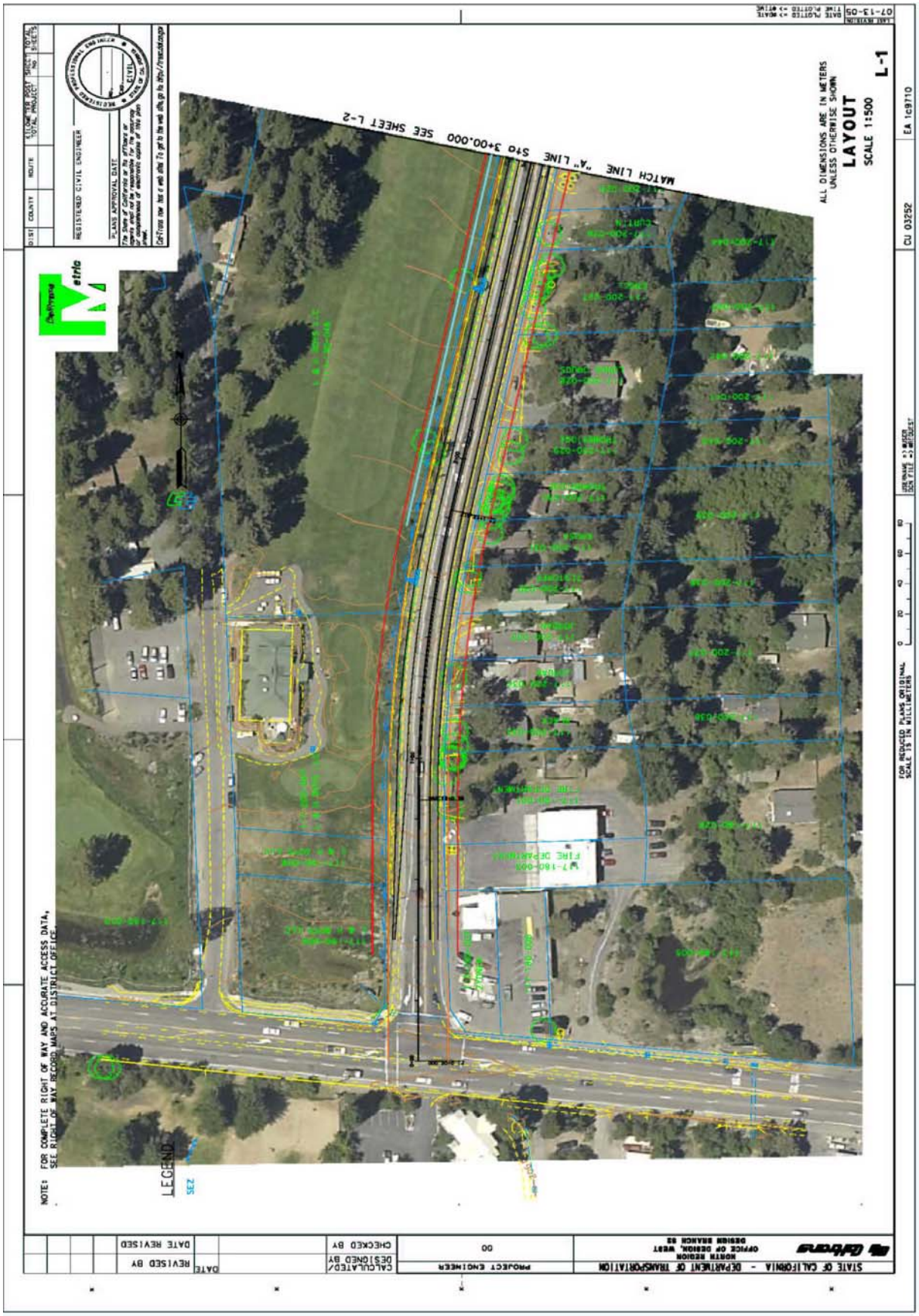
Mitigation Measure	Responsible for Implementation	Notes	Completion Date
channel and adjacent areas		seasons	
WQ-03: Containment Measures / Construction site BMPs	Contractor and Caltrans Resident Engineer	Methods shall be TRPA and RWQCB approved	Containment measures in place until all construction activities are complete
WQ-05: Restore stream and riparian onsite	Contractor and Caltrans Resident Engineer (implement in field) Caltrans Landscape Engineer or Biologist (Post construction monitoring)	As per Caltrans Landscape Architecture Re-vegetation and Erosion Control Plan for methods and monitoring	Stream banks stabilized and plantings in place by October 15th of final construction season
WQ-06: Water Quality or Excess Coverage Mitigation Fees	Caltrans Project Management	Fees to be determined by during TRPA permitting	Mitigation fees paid prior to issuance of TRPA permit
WQ-07: Restore disturbed SEZs at a 1.5 to 1 ratio	Caltrans Project Management Caltrans Biologist, Caltrans Landscape Architect	Fees to be determined by CTC during TRPA permitting, re-vegetation plan by Caltrans Biologist, Caltrans Landscape Architect	Mitigation approved after issuance of TRPA permit (see WQ6)
WL-03: Restrict timing of woody vegetation removal	Contractor and Caltrans Resident Engineer	Remove woody vegetation between August 16th and March 31st.	March 31st of first construction season
WL-04: Pre-construction surveys: Nesting Birds	Caltrans Biologist	Required 30 days prior to vegetation removal if WL-03 is not feasible. Requires consult with USFWS if nesting birds discovered	Prior to each construction season requiring woody vegetation removal
WL-05: Limit vegetation removal	Contractor and Caltrans Resident Engineer	Limit vegetation removal in all construction seasons	October 15th of final construction season
WC-01: Weed Free Construction Equipment	Contractor and Caltrans Resident Engineer	Construction equipment cleaned of potential noxious weed before entry the project area.	Construction equipment free of weed source until all construction activities are complete
WC-02: Equipment Staging in Weed Free Areas	Contractor and Caltrans Resident Engineer	Staging areas to be delineated on project plans	Construction equipment staged in weed free areas until all construction activities are complete
WC-03: Weed Free Erosion Control	Contractor and Caltrans Resident Engineer (implement in field) Caltrans Landscape Engineer or Biologist (Post construction monitoring)	As per Caltrans Landscape Architecture Re-vegetation and Erosion Control Plan for methods and monitoring	October 15th of first construction season

Appendix E Project Plans and Mapping

The following pages contain design mapping for the Proposed Project. See the following key to determine the representation of the colored lines and areas.

Mapping Key:

Yellow = Edge of State Route 267 and other original ground features (i.e. fences, driveways, etc.)
Black = Proposed Roadway Geometrics
Blue = Property parcels and proposed Infiltration/Detention Basins
Red = Existing Area of Potential Effects (APE)
Blue line with dots = Stream Environment Zone (SEZ)
Orange = Existing Right of Way
Light Blue = Berm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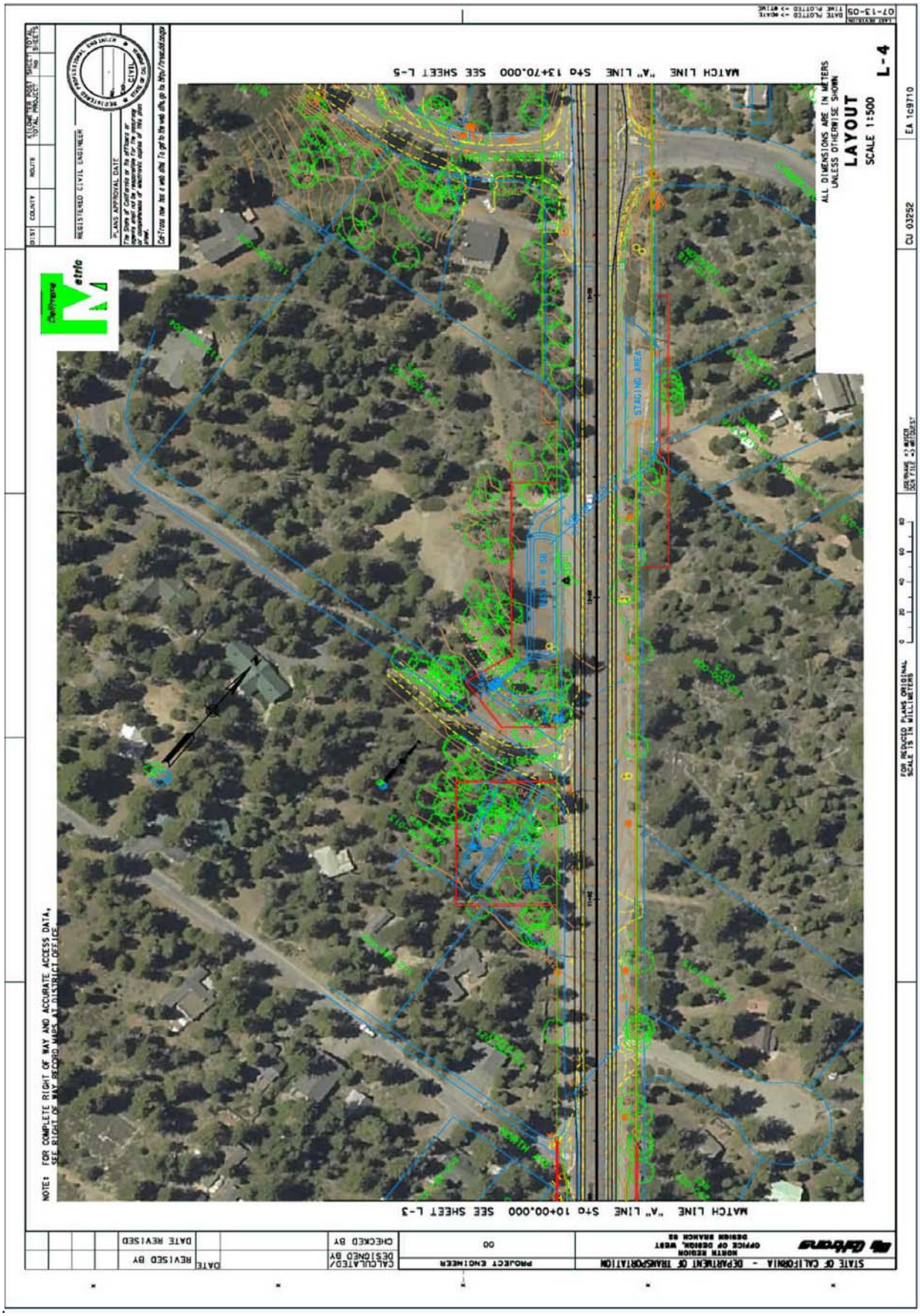
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Appendix F Response to Comments

This draft Initial Study will be circulated from April 19, 2006 to May 18, 2006, to all appropriate parties and agencies, including the following: 1) Responsible agencies, 2) Trustee agencies that have resources affected by the project, and 3) other state and local agencies that have regulatory jurisdiction or that exercise authority over resources that may be affected by the project. Copies of the document will also be made available to the general public at local post offices and libraries. In addition, an article will be circulated in the local newspaper requesting if the public wants an open house. If public notification generates sufficient interest to warrant a public forum, Caltrans will hold an open public house or public meeting to address comments and concerns. Copies will be made available at the Caltrans District 3-North Region Environmental Division, Office of Environmental Management S-3, located at 2800 Gateway Oaks Drive, Suite 100, Sacramento, CA 95833.

The Federal Categorical Exclusion will be circulated to responsible federal agencies during the permitting process. NEPA does not require formal scoping.

Comments received during the review period and Caltrans responsed to those comments will be incorporated below.

Appendix G List of Abbreviated Terms

§	Section
USACE	United States Army Corps Of Engineers
APCD	Air Pollution Control District
AQ	Air Quality
ARS	Archaeological Survey Report
BMPs	Best Management Practices
Caltrans	California Department of Transportation
CCC	California Conservation Corps
CDFG	California Department of Fish and Game
CEDB	Chemically-Enhanced Detention Basin
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Levels
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CO	Carbon Monoxide
CMP	Corrugated Metal Pipe
CWA	Clean Water Act of 1972
DBH	Diameter Breast Height
DIN	Dissolved Inorganic Nitrogen
DVTE	Daily vehicle trip ends
EIP	Environmental Improvement Program
FHWA	Federal Highway Administration
ft	feet
HCP	Habitat Conservation Plan
HPSR	Historic Properties Survey Report
I	Interstate
IPES	Individual Parcel Evaluation System
km	kilometer(s)
KP	kilometer post
LTBMU	Lake Tahoe Basin Management Unit
m	meter(s)
mg/l	milligrams/liter
mi	mile(s)
MMP	Mitigation Monitoring Program
MND	Mitigated Negative Declaration
MS4	Municipal storm sewer system serving a population of 100,000 or more.
MYLF	Mountain Yellow Legged Frog
ND/IS	Negative Declaration/Initial Study
NO_x	Nitrous Oxides
NPDES	National Pollutant Discharge Elimination System
NTU	Nephlometric Turbidity Unit
PM	post mile
PM_{10}	Particulate Matter greater than 10 microns in size
ppm	parts per million
RE	Resident Engineer
ROG	Reactive Organic Gas
ROW	Right-of-way
RWQCB	Regional Water Quality Control Board
SEZ	Stream Environment Zone
SHPO	State Historic Preservation Office

SND	Subsequent Negative Declaration
SPPC	Sierra Pacific Power Company
Route	State Route
SWMP	Storm Water Management Plan
SWPPP	Storm Water Pollution Prevention Plan
TMP	Caltrans Traffic Management Plan
TOS	Thresholds Of Significance
TRPA	Tahoe Regional Planning Agency
TRT	Tahoe Rim Trail
USEPA	United States Environmental Protection Agency
USFS	United States Forest Service, Department of Agriculture
VMT	Vehicle Miles Traveled
WPCP	Water Pollution Control Program

Appendix H Definition of Beneficial Uses of Surface Waters in the Lahontan Region

AGR **Agricultural Supply**. Beneficial uses of waters used for farming, horticulture, or ranching, including, but not limited to, irrigation, stock watering, and support of vegetation for range grazing.

AQUA **Aquaculture**. Beneficial uses of waters used for aquaculture or mariculture operations including, but not limited to, propagation, cultivation, maintenance, and harvesting of aquatic plants and animals for human consumption or bait purposes.

BIOL **Preservation of Biological Habitats of Special Significance**. Beneficial uses of waters that support designated areas or habitats, such as established refuges, parks, sanctuaries, ecological reserves, and Areas of Special Biological Significance (ASBS), where the preservation and enhancement of natural resources requires special protection.

COLD **Cold Freshwater Habitat**. Beneficial uses of waters that support cold water ecosystems including, but not limited to, preservation and enhancement of aquatic habitats, vegetation, fish, and wildlife, including invertebrates.

COMM **Commercial and Sportfishing**. Beneficial uses of waters used for commercial or recreational collection of fish or other organisms including, but not limited to, uses involving organisms intended for human consumption.

FLD **Flood Peak Attenuation/Flood Water Storage**. Beneficial uses of riparian wetlands in flood plain areas and other wetlands that receive natural surface drainage and buffer its passage to receiving waters.

FRSH **Freshwater Replenishment**. Beneficial uses of waters used for natural or artificial maintenance of surface water quantity or quality (e.g., salinity).

GWR **Ground Water Recharge**. Beneficial uses of waters used for natural or artificial recharge of ground water for purposes of future extraction, maintenance of water quality, or halting of saltwater intrusion into freshwater aquifers.

IND **Industrial Service Supply**. Beneficial uses of waters used for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, geothermal energy production, hydraulic conveyance, gravel washing, fire protection, and oil well repressurization.

MIGR **Migration of Aquatic Organisms**. Beneficial uses of waters that support habitats necessary for migration, acclimatization between fresh and salt water, or temporary activities by aquatic organisms, such as anadromous fish.

MUN **Municipal and Domestic Supply**. Beneficial uses of waters used for community, military, or individual water supply systems including, but not limited to, drinking water supply.

NAV **Navigation**. Beneficial uses of waters used for shipping, travel, or other transportation by
private, military, or commercial vessels.

POW **Hydropower Generation**. Beneficial uses of waters used for hydroelectric power generation.

PRO **Industrial Process Supply**. Beneficial uses of waters used for industrial activities that depend primarily on water quality.

RARE **Rare, Threatened, or Endangered Species**. Beneficial uses of waters that support habitat necessary for the survival and successful maintenance of plant or animal species established under state and/or federal law as rare, threatened or endangered.

REC-1 **Water Contact Recreation**. Beneficial uses of waters used for recreational activities involving body contact with water where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and scuba diving, surfing, white water activities, fishing, and use of natural hot springs.

REC-2 **Non-contact Water Recreation**. Beneficial uses of waters used for recreational activities involving proximity to water, but not normally involving body contact with water where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking , sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, and aesthetic enjoyment in conjunction with the above activities.

SAL **Inland Saline Water Habitat**. Beneficial uses of waters that support inland saline water ecosystems including, but not limited to, preservation and enhancement of aquatic saline habitats, vegetation, fish, and wildlife, including invertebrates.

SPWN **Spawning , Reproduction , and Development**. Beneficial uses of waters that support high quality aquatic habitat necessary for reproduction and early development of fish and wildlife.

WARM **Warm Freshwater Habitat**. Beneficial uses of waters that support warm water ecosystems including, but not limited to, preservation and enhancement of aquatic habitats, vegetation, fish, and wildlife, including invertebrates.

WILD **Wildlife Habitat**. Beneficial uses of waters that support wildlife habitats including, but not limited to, the preservation and enhancement of vegetation and prey species used by wildlife, such as waterfowl.

WQE **Water Quality Enhancement**. Beneficial uses of waters that support natural enhancement or improvement of water quality in or downstream of a water body including, but not limited to, erosion control, filtration and purification of naturally occurring water pollutants, streambank stabilization, maintenance of channel integrity, and siltation control.