

# El Dorado 50, Segment 2 – Lake Tahoe Airport to US 50/SR 89 Junction Water Quality Improvement Project

EL DORADO COUNTY, CALIFORNIA  
DISTRICT 3 – ED – 50 PM 73.7 / 75.4  
03-1A7320

## Initial Study with Proposed Negative Declaration



**November 2007**

Prepared by the  
State of California Department of Transportation



## **GENERAL INFORMATION ABOUT THIS DOCUMENT**

### **What's in this document:**

The California Department of Transportation (Caltrans) has prepared this Initial Study (IS), which examines the potential environmental impacts of a project to improve water quality runoff along the segment of U.S. Highway 50 (US 50) from the Lake Tahoe Airport to the "Y" junction of US 50 and State Route 89 (SR 89) in the City of South Lake Tahoe, California. The document describes why the project is being proposed, alternatives for the project, the existing environment that could be affected by the project, the potential impacts from each of the alternatives, and the proposed avoidance, minimization and/or mitigation measures.

### **What you should do:**

- Please read this Initial Study. Additional copies of this document as well as the technical studies are available for review at the Caltrans North Region Office of Environmental Management, 2800 Gateway Oaks Drive, Sacramento, CA 95833.
- We welcome your comments regarding the proposed project. Please send written comments via postal mail to Jody L. Brown, Chief, Environmental Branch, Attention: Christopher Carlton, Caltrans District 3, 2800 Gateway Oaks Drive, Sacramento, CA 95833. Comments can be submitted via e-mail to [christopher\\_carlton@dot.ca.gov](mailto:christopher_carlton@dot.ca.gov).
- Submit comments by the deadline: December 12, 2007.

### **What happens next?**

After comments are received from the public and reviewing agencies, Caltrans and FHWA may: (1) give environmental approval to the proposed project, (2) undertake additional environmental studies, or (3) abandon the project. If the project is given environmental approval and funding is appropriated, the Department could design and construct all or part of the project.

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, attn: Christopher Carlton, Office of Environmental Management, 2800 Gateway Oaks Dr., Sacramento, CA 95833; (916) 263-5911 Voice, or use the California Relay Service TTY number, 1 (800) 735-2929.

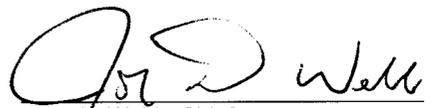
In El Dorado County, California,  
On U.S. Highway 50 (US 50) from the Lake Tahoe Airport (PM 73.7) to the "Y" junction of US 50 and State  
Route (SR) 89 in the City of South Lake Tahoe (PM 75.4)

## INITIAL STUDY with PROPOSED NEGATIVE DECLARATION

Submitted Pursuant to: Division 13, California Public Resources Code

THE STATE OF CALIFORNIA  
Department of Transportation

November 4 2007  
Date of Approval

  
John D. Webb, Chief  
Office of Environmental Services - South  
California Department of Transportation

## Proposed Negative Declaration (ND)

### *Project Description*

The California Department of Transportation (Caltrans) proposes to improve the quality of storm water runoff for the segment of United States Highway 50 (US 50) between the Lake Tahoe Airport and the “Y” junction of US 50 and State Route (SR) 89 in the City of South Lake Tahoe, California. The project will involve installing slope stability and protection measures and installing drainage facilities to collect, treat, and direct storm water runoff from the highway. The project is needed to meet National Pollutant Discharge Elimination System (NPDES) permit requirements and address planned water quality improvements that are part of the Lake Tahoe Basin Environmental Improvement Program (EIP).

### *Determination*

This proposed Negative Declaration (ND) is included to give notice to interested agencies and the public that it is Caltrans’ intent to adopt an ND for this project. This does not mean that Caltrans’ decision regarding the project is final. This ND is subject to modification based on comments received by interested agencies and the public.

Caltrans has prepared an Initial Study for this project, and pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons:

The proposed project would have no effect on land use, growth, population and housing, recreation, relocations, farmland, airport or air traffic patterns, energy, cultural resources, floodplains, wild or scenic rivers, Coastal Zones, mineral resources, or climate change.

In addition, the proposed project would have no adverse effect on public services, utilities, transportation and traffic, visual resources, hydrology, water quality, geology and soils, hazardous waste, air quality, noise, or biological resources.

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John D. Webb, Chief  
Office of Environmental Services - South  
California Department of Transportation

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Date

## Summary

The California Department of Transportation (Caltrans), in conjunction with the Federal Highway Administration (FHWA), proposes to provide containment and/or treatment of storm water runoff on United States Highway 50 (US 50) from the Lake Tahoe Airport to the “Y” junction of US 50 and State Route 89 (SR 89) in the City of South Lake Tahoe, California. This project is one of eight similar improvements proposed on segments of US 50 and SR 89 in the Lake Tahoe Basin (three on US 50 and five on SR 89). Each proposed project within these segments would have logical termini and independent utility, and would likely be individually funded and constructed over a number of years. This Initial Study (IS) addresses Segment 2 of US 50 (Lake Tahoe Airport to the US 50/SR 89 junction).

The proposed project will implement water quality improvement measures to comply with National Pollutant Discharge Elimination System (NPDES) permit requirements and address planned water quality improvements identified in the Lake Tahoe Basin Environmental Improvement Program (EIP) and the Lahontan Regional Water Quality Control Board’s (LRWQCB’s) 1995 *Water Quality Control Plan for the Lahontan Region, North and South Basins* (Basin Plan). Both plans require retrofitting the state highway system to stabilize eroding slopes and meet specific storm water collection, treatment, and transport standards by 2008. The project would be constructed seasonally over a multiyear period.

Caltrans is the lead agency for the project, pursuant to the California Environmental Quality Act (CEQA). As of July 2007, Caltrans has been delegated the responsibility for certain reviews and approvals formerly performed by the FHWA, including the approval of Categorical Exclusions in accordance with the National Environmental Policy Act (NEPA). If it is determined that the project would have no significant adverse environmental impacts, Caltrans will approve a Negative Declaration under CEQA and a Categorical Exclusion under NEPA.

### **S.1 Purpose and Need**

The purpose of the proposed project is to implement NPDES permit requirements and water quality elements of the Lake Tahoe Basin EIP that relate to Segment 2 of US 50.

The NPDES requirements arise from goals and objectives to improve the quality of water at Lake Tahoe. The Tahoe Regional Planning Agency (TRPA) is responsible in part for attaining and maintaining established environmental threshold carrying

capacities that protect the unique values of the Lake Tahoe Basin, including water quality, wildlife, vegetation, soil conservation, fisheries, noise, recreation, air quality, transportation, historic resources, scenic resources, and community design. The TRPA's goals are implemented through its Code of Ordinances, which regulates all proposed projects and activities within the Lake Tahoe Basin. In addition, a 1997 federal agency partnership with California and Nevada, TRPA, and the Washoe Tribal Government affirmed a commitment to manage and protect the Lake's natural resources, achieve environmental thresholds, and adopt and fund the EIP. The EIP contains specific projects, including many that involve California highways in the Lake Tahoe Basin.

Caltrans was issued a Statewide NPDES Permit from the State Water Resources Control Board (SWRCB) in 1999. The Statewide Permit requires that storm water/urban runoff collection, treatment, and/or infiltration disposal facilities be designed, installed, and maintained for the discharge of storm water runoff from all impervious surfaces generated by the 20-year, 1-hour design storm within the Lake Tahoe Hydrologic Unit. According to the permit, all Caltrans facilities within the Lake Tahoe Hydrologic Unit must be retrofitted to comply with this requirement by 2008. The permit also incorporates provisions of the Basin Plan. The Basin Plan contains requirements that apply to Caltrans highways and projects, including effluent limitations for storm water discharges (i.e., storm water and snowmelt runoff from the state's highways). Essentially, all storm water runoff from Caltrans highways must be managed within the state rights-of-way or, if infeasible, treated to meet applicable standards and effluent limitations contained in the Basin Plan unless the LRWQCB approves alternative mitigation.

## **S.2 Alternatives**

Within the proposed limits on US 50, the project would construct various water quality and drainage improvements designed to site-specific conditions (e.g., soil, drainage, and topography) and right-of-way availability, while avoiding or minimizing environmental impacts along Segment 2 of US 50. These would include the following:

- The existing roadway drainage system will be enhanced by adding Portland Cement Concrete (PCC) or Asphalt Concrete (AC) curbs and gutters at the edges of shoulders and rehabilitating and constructing new drainage inlets and culverts. These features will convey runoff to underground sand collection vaults, sand collection traps, infiltration basins, and meandering ditches for treatment.

- With concurrence from LRWQCB and TRPA, spreading of runoff will be proposed where feasible in Stream Environment Zone (SEZ) areas. Sheet flow will be enhanced in areas where it is determined to provide better runoff treatment than drainage collection facilities.
- Maintenance pullouts will be constructed at sand collection vaults where feasible.
- Existing shoulders will be spot widened where necessary for water conveyance facilities.
- Drainage outfalls will be reconstructed to reduce erosion and convey runoff.
- Erosion control measures will be incorporated on all eroding slopes within the state right-of-way. To provide additional water quality improvements, unvegetated dirt areas adjacent to the shoulder will be landscaped to promote vegetation growth and discourage vehicles from entering. Erodible slopes will also be flattened and protected. Rock slope protection will be used where appropriate.
- A uniform depth AC overlay will be placed over the existing pavement. Failed pavement sections will be dug out and replaced.
- Sand traps and sand vaults will be installed within the project limits.

Only minor right-of-way acquisitions or easements will be necessary to construct the project. Driveways for private residences or commercial buildings may need to be modified during construction. These driveway modifications would require coordination with the affected property owners if a change in property access could occur. If driveway modifications require work outside of the state right-of-way, Permits to Enter would be required. The project's purpose is to improve the quality of storm water runoff and will not change the existing highway alignment, expand capacity, or add travel or bicycle lanes. Construction is anticipated to require two to three seasons to complete. Construction will require temporary reduction in lane widths and possible periodic lane closures and traffic delays. Following construction, and between seasons of construction, erosion control and slope stability measures will be applied.

The No Build Alternative would not construct the proposed improvements and would not comply with the NPDES permit or implement the elements of the EIP. Caltrans is required to comply with the NPDES permit issued by the SWRCB and could be in violation of permit requirements if the proposed project were not constructed.

### **S.3 Permits and Approvals Needed**

In addition to NEPA and CEQA compliance, the project is subject to other federal, state, and local laws, policies, and guidelines that are addressed in this IS. Applicable regulatory consultation or approvals may be needed from the following agencies:

- U.S. Army Corps of Engineers (USACE) – Nationwide Permit authorization
- State Historic Preservation Officer (SHPO) – Concurrence on finding that the project does not affect historic resources and Section 106 requirements are satisfied
- California Department of Fish and Game (CDFG) – Streambed Alteration Agreement permit
- Lahontan Regional Water Quality Control Board (LRWQCB) – Section 401 Certification/NPDES; potential exemption to the Basin Plan, which prohibits disturbance in a Stream Environment Zone
- TRPA
- City of South Lake Tahoe (encroachment permit)
- El Dorado County (encroachment permit)

This IS addresses the proposed project’s potential to have adverse impacts on the environment. Potential impacts and mitigation/minimization measures are summarized in Table S-1.

**Table S-1 Summary of Impacts and Avoidance, Minimization, and Mitigation Measures**

Potential Impact	Impact Summary	Avoidance/Minimization/Mitigation
<b>Land Use</b>	<ul style="list-style-type: none"> <li>Residents and businesses of the South Lake Tahoe area and travelers on US 50 could experience temporary effects from construction-related disruptions and delays.</li> <li>The project includes minimal new impervious surfaces that may not be exempt from TRPA Bailey land coverage limits. Final surface area coverage will be defined and provided to TRPA to determine Coverage Verification.</li> </ul>	<ul style="list-style-type: none"> <li>Traffic management measures (see TT-1).</li> </ul>
<b>Community Impacts</b>	<ul style="list-style-type: none"> <li>Construction and maintenance of infiltration basins and other facilities will require minor acquisition of property or easements. Compensation for any property acquisition would be based on fair market value.</li> <li>Intermittent traffic delays could affect community institutions such as schools and local agencies.</li> <li>Construction near properties, driveways, and access roads could cause temporary, minor disruptions to residents, owners, or occupants.</li> </ul>	<ul style="list-style-type: none"> <li>CI-1: Potentially affected individuals and institutions in the local area will be notified and informed of project scheduling/activities. A public involvement plan will be developed.</li> <li>CI-2: Access to properties, driveways, or access roads along US 50 will be maintained during construction.</li> </ul>
<b>Utilities/Emergency Services</b>	<ul style="list-style-type: none"> <li>Relocation of some utilities may be required for construction of proposed facilities.</li> <li>Access to US 50 for the South Lake Tahoe Fire Department and the Lake Valley Fire Protection District and Forest Service will be maintained during construction. Emergency vehicles, including fire, police, and ambulance, will be provided access through construction zones.</li> </ul>	<ul style="list-style-type: none"> <li>UE-1: Any need for utility relocation will be identified during final project design. If a need to relocate utilities is identified, Caltrans will coordinate these activities with the utility service providers.</li> <li>No further mitigation required for emergency services.</li> </ul>
<b>Traffic and Transportation</b>	<ul style="list-style-type: none"> <li>Traffic flow and access to existing parcels will not be permanently impacted by this project, but may be affected temporarily during construction.</li> <li>There is a potential for construction delays to interfere with through traffic and scheduled Lake Tahoe Unified School District and BlueGO transit service in the project area.</li> <li>The project will not change bicycle access/use on US 50, except for intermittent delays during construction.</li> </ul>	<ul style="list-style-type: none"> <li>TT-1: Traffic management during construction will include development of lane closure plans, and provide information and notice of construction activities that may impede traffic or access.</li> </ul>

**Table S-1 Summary of Impacts and Avoidance, Minimization, and Mitigation Measures (continued)**

Potential Impact	Impact Summary	Avoidance/Minimization/Mitigation
<b>Visual/Aesthetics</b>	<ul style="list-style-type: none"> <li>• Infiltration basins will require some tree removal.</li> <li>• Drainage maintenance pullouts may require cut and fill, ground disturbance, and vegetation removal.</li> <li>• Sand traps and vaults will be added, but these features are mostly underground and should not be readily visible.</li> <li>• New rock slope protection at culvert outlets and new curbs and gutters may initially contrast with surroundings.</li> <li>•</li> <li>• Minor cut and fill will be required for spot shoulder widening.</li> <li>• Trees will be removed to accommodate project features; removal will comply with TRPA requirements.</li> </ul>	<ul style="list-style-type: none"> <li>• VA-1: Measures will be implemented for specific project features, including design of infiltration basins to minimize tree removal; revegetation of rock slope protection; and coloration of sand traps, sand vaults, and curbs to match surroundings.</li> <li>• VA-2: General design measures will be implemented including temporary and permanent erosion control measures.</li> <li>• VA-3: Project improvements will consider TRPA scenic thresholds and incorporate design elements or improvements that do not degrade current values.</li> </ul>
<b>Cultural Resources</b>	<ul style="list-style-type: none"> <li>• Archaeological resources have the potential to be affected by the proposed project. With the implementation of avoidance measures, no impacts are anticipated.</li> </ul>	<ul style="list-style-type: none"> <li>• CR-1: If cultural resources are identified during construction activities, all work will stop until a qualified archaeologist can assess the discovery.</li> <li>• CR-2: If human remains are discovered, activities shall cease and the County Coroner contacted will be contacted. The Native American Heritage Commission will be contacted if appropriate.</li> </ul>
<b>Hydrology and Floodplains</b>	<ul style="list-style-type: none"> <li>• The project is within Federal Emergency Management Agency (FEMA) zones designated as having minimal flood hazard but would not alter the floodplain or flows.</li> </ul>	<ul style="list-style-type: none"> <li>• No additional avoidance measures are necessary.</li> </ul>
<b>Water Quality and Storm Water Runoff</b>	<ul style="list-style-type: none"> <li>• Vegetation clearing and construction work will increase risk of erosion and sedimentation during and for a short time following construction.</li> <li>• Proposed project features will have a beneficial long-term effect by improving the quality of runoff leaving the state right-of-way.</li> </ul>	<ul style="list-style-type: none"> <li>• WS-1: Erosion control and pollution prevention measures will be incorporated into the project.</li> <li>• WS-2: If construction encounters groundwater or may involve non-storm water discharges, consultation with the LRWQCB or California Department of Toxic Substances Control may be appropriate.</li> </ul>

**Table S-1 Summary of Impacts and Avoidance, Minimization, and Mitigation Measures (continued)**

Potential Impact	Impact Summary	Avoidance/Minimization/Mitigation
<b>Soils, Soils Conservation, Geology, and Seismicity</b>	<ul style="list-style-type: none"> <li>• New drainage features will create additional hard coverage.</li> <li>• Construction of certain project features on unstable soils or steep slopes could increase the potential for erosion and slope instability.</li> </ul>	<ul style="list-style-type: none"> <li>• SC-1: Caltrans would purchase land coverage credits pursuant to the TRPA Code of Ordinances.</li> <li>• SC-2: Proposed structures could require geotechnical investigation if they are located on potentially unstable soils and could present landslide, rockfall, liquefaction, or erosion hazards.</li> </ul>
<b>Hazardous Waste and Materials</b>	<ul style="list-style-type: none"> <li>• Aerially deposited lead (ADL) may be present in roadside soils.</li> <li>• Construction activity in proximity to potential contamination sites may encounter contaminated soil or groundwater.</li> <li>• Thermoplastic roadway striping may contain hazardous materials.</li> </ul>	<ul style="list-style-type: none"> <li>• HZ-1: A version of the Caltrans Non Standard Special Provisions (N-SSP #07-330) may apply to handling of ADL soils, but requires verification.</li> <li>• HZ-2: If any soil disturbance activities are planned adjacent to potentially contaminated site, investigation may be required to determine if contamination is present.</li> <li>• HZ-3: Any removal of yellow thermoplastic lane striping must be performed in accordance with a Lead Compliance Plan and disposed of in an appropriate landfill.</li> </ul>
<b>Air Quality</b>	<ul style="list-style-type: none"> <li>• Dust and particulate emissions would temporarily increase during construction, and construction equipment would generate diesel emissions.</li> </ul>	<ul style="list-style-type: none"> <li>• AQ-1: Dust control practices will be required of the contractor.</li> <li>• AQ-2: Measures can be implemented to reduce emissions from construction equipment.</li> </ul>
<b>Noise</b>	<ul style="list-style-type: none"> <li>• Project construction activities could intermittently exceed City of South Lake Tahoe and TRPA noise threshold levels. Project construction is exempt from the South Lake Tahoe and TRPA Noise Ordinance if construction activities occur between the daytime hours of 8:00 a.m. and 6:30 p.m. The contractor will be restricted to these time periods unless a variance to this ordinance is obtained.</li> </ul>	<ul style="list-style-type: none"> <li>• NO-1: Caltrans Standard Specifications Section 7-1.011 and other construction noise measures to limit exposure and noise generation will be followed.</li> </ul>
<b>Natural Communities</b>	<ul style="list-style-type: none"> <li>• No sensitive natural communities exist within the ESL. Therefore, no project-related impacts are anticipated.</li> </ul>	<ul style="list-style-type: none"> <li>• No additional avoidance measures are necessary.</li> </ul>

**Table S-1 Summary of Impacts and Avoidance, Minimization, and Mitigation Measures (continued)**

Potential Impact	Impact Summary	Avoidance/Minimization/Mitigation
<p><b>Wetlands and Waters of the United States, and Stream Environment Zones</b></p>	<ul style="list-style-type: none"> <li>• Approximately 0.01 acre of wetlands could be permanently affected by construction of proposed cut and fill slopes, basins, and pullouts.</li> <li>• A total of &lt;0.06 acre of potentially jurisdictional wetlands and other waters of the U.S. would be permanently affected by proposed construction activities.</li> <li>• A total of 0.16 acre of SEZs within the ESL would be permanently affected by basin construction.</li> </ul>	<ul style="list-style-type: none"> <li>• WE-1: Impacts to wetlands, other waters of the U.S., and SEZs will be mitigated on-site if possible. Detailed wetland mitigation plans will be developed in consultation with the USACE.</li> <li>• WE-2: General avoidance/minimization measures and best management practices (BMPs; see Section 2.15.4) will be implemented, including establishing ESA boundaries, providing erosion control, and limiting vegetation removal.</li> </ul>
<p><b>Special-Status Plant Species</b></p>	<ul style="list-style-type: none"> <li>• No sensitive plant species were found within the ESL during the biological field surveys. No direct or indirect effects are expected.</li> </ul>	<ul style="list-style-type: none"> <li>• No additional avoidance measures are necessary.</li> </ul>

**Table S-1 Summary of Impacts and Avoidance, Minimization, and Mitigation Measures (concluded)**

Potential Impact	Impact Summary	Avoidance/Minimization/Mitigation
<p><b>Special-Status Animal Species</b></p>	<ul style="list-style-type: none"> <li>• Marginal foraging habitat exists within the ESL. However, effects to wildlife habitat will be avoided or minimized.</li> </ul>	<ul style="list-style-type: none"> <li>• AN-1: Preconstruction surveys will be conducted in the ESL to verify that nesting is still absent for northern goshawk, blue grouse, waterfowl, and peregrine falcon. Active nesting would require construction restrictions during nesting season. TRPA and Forest Service annual survey data will be reviewed for new occurrence data.</li> <li>• AN-2 and AN-3: General avoidance/minimization measures and BMPs (see Section 2.17.4) will be implemented to avoid potential effects to avian species and mammals, respectively.</li> <li>• AN-4: Preconstruction surveys for Sierra Nevada snowshoe hare will be conducted in riparian areas where nest depressions may be within the ESL. Where nest depressions are identified, construction within 250 feet will be prohibited from February 1 to July 1 and restricted to daylight hours.</li> </ul>
<p><b>Threatened and Endangered Species</b></p>	<ul style="list-style-type: none"> <li>• Potentially suitable habitat for Sierra Nevada red fox, a state-listed threatened species, exists within the project area. Caltrans has determined that the species is not present in the project area.</li> </ul>	<ul style="list-style-type: none"> <li>• TE-1: Preconstruction surveys will verify absence of Sierra Nevada red fox in the ESL. If active dens are found, a 250-foot buffer will be imposed, and construction will be prohibited from February 1 to May 31.</li> </ul>
<p><b>Invasive Species</b></p>	<ul style="list-style-type: none"> <li>• No established infestation of noxious weeds was detected in the project ESL.</li> </ul>	<ul style="list-style-type: none"> <li>• General avoidance/minimization measures and BMPs HA-03 (Construction Equipment Weed Control) and HA-05 (Weed-Free Erosion Control Seed Mix/Stock) (see Section 2.20) will be required to avoid potential infestation of noxious weed material to the project site.</li> </ul>

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## List of Acronyms and Abbreviations

208 Plan	<i>Water Quality Management Plan for the Lake Tahoe Region</i> (TRPA 1988)
AADT	average annual daily traffic
AC	Asphalt Concrete
ADL	aerially deposited lead
Basin Plan	<i>Water Quality Control Plan for the Lahontan Region, North and South Basin</i> (LRWQCB 1995)
BMP	best management practice
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geologic Survey
CNDDB	California Natural Diversity Data Base
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CRHR	California Register of Historical Resources
CWA	Clean Water Act
dBA	A-weighted decibel
EIP	(Lake Tahoe Basin) Environmental Improvement Program
EIR	Environmental Impact Report
ESA	environmentally sensitive area
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
Forest Service	(U.S. Department of Agriculture) Forest Service
$L_{eq}$	average A-weighted decibel level during a measurement period
$L_{max}$	maximum noise level during a measurement period
LRWQCB	Lahontan Regional Water Quality Control Board
LTBMU	(U.S. Department of Agriculture Forest Service) Lake Tahoe Basin Management Unit
LTHU	Lake Tahoe Hydrologic Unit
LTUSD	Lake Tahoe Unified School District
MCE	maximum credible earthquake
mg/L	milligram(s) per liter
MOU	Memorandum of Understanding
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NO <sub>2</sub>	nitrogen dioxide

NO <sub>x</sub>	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
N-SSP	Caltrans Non Standard Special Provisions
NTU	Nephelometric Turbidity Units
O <sub>3</sub>	ozone
PAS	Plan Area Statement
Pb	lead
PCC	Portland Concrete Cement
PM	post mile
PM <sub>2.5</sub>	particulate matter less than 2.5 microns in diameter
PM <sub>10</sub>	particulate matter less than 10 microns in diameter
ppm	part(s) per million
PSR	Project Study Report
ROG	reactive organic gas
RWQCB	Regional Water Quality Control Board
SEZ	stream environment zone
SHPO	State Historic Preservation Officer
SO <sub>2</sub>	sulfur dioxide
SR 89	State Route 89
Statewide Permit	Caltrans National Pollutant Discharge Elimination System Permit Order No. 99-06-DWQ, No. CAS000003
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TMDL	total maximum daily load
TMP	Traffic Management Plan
TRPA	Tahoe Regional Planning Agency
US 50	U.S. Highway 50
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
V:H	vertical to horizontal
VMT	vehicle miles traveled
“Y”	Intersection of US 50 and SR 89 in South Lake Tahoe