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California Regional Water Quality Control Board Lahontan Region

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PROJECT DESCRIPTION

PROPOSED BASIN PLAN AMENDMENT: LAKE TAHOE TOTAL MAXIMUM DAILY LOAD

Description of the Proposed Activity

The proposed activity is the adoption of an amendment to the Lahontan Regional Water Board's (Water Board) Water Quality Control Plan (Basin Plan) to incorporate total maximum daily loads of fine sediments (<20 micrometers in diameter), phosphorous, and nitrogen to Lake Tahoe. These pollutants are causing Lake Tahoe to not meet the clarity standard of 97.4 feet as measured by secchi disk. Lake Tahoe has been losing its famed clarity at a rate of nearly nine inches per year since clarity was first monitored in the late 1960's. Fine sediments decrease clarity by scattering light as the particles slowly settle through the water. Nitrogen and phosphorous stimulate algae growth, which in turn absorbs light, reducing how far light can penetrate into the lake.

Lake Tahoe is located on the California-Nevada border in the Sierra Nevada Mountain Range (see map, Figure 1). The lake is situated at an elevation of 6229 feet with a surrounding landscape that rises to 10,881 feet. The California portion of the Lake is split between Placer and El Dorado Counties. The Lake Tahoe TMDL is a joint effort between California and Nevada. This proposed TMDL applies to all waters in the Lake Tahoe Watershed that are tributaries to Lake Tahoe. The proposed Basin Plan Amendment, however, only applies to the California portion of the watershed. Land uses in the Tahoe Basin include forests, recreation, urban, dispersed residential, and concentrated residential.

The proposed Lake Tahoe TMDL will specify the maximum fine sediment and nutrient load the lake can assimilate and still achieve water quality standards. The TMDL will allocate these loads to sources and will include an implementation plan. The objective of the proposed activity is to reduce these loads to levels that protect Lake Tahoe's beneficial uses. The proposed Basin Plan Amendment (BPA) codifies these actions within the Water Quality Control Plan for the Lahontan Region.

The proposed Tahoe TMDL will be developed to fulfill requirements of section 303(d) of the Clean Water Act. The proposed implementation plan is required by the California Water Code (CWC) section 13242, which also requires that implementation plans be incorporated into the Water Board's Basin Plan.

The Water Board designated Lake Tahoe as an Outstanding National Resource Water, and considers non-contact recreation (aesthetic enjoyment of lake clarity) a primary beneficial use of the lake. This beneficial use is impaired by fine

sediment and nutrient loading to Lake Tahoe. The Lake Tahoe Clarity Model suggests that fine sediment has the greatest potential to impair the lake's clarity. The proposed TMDL implementation plan will focus on reducing fine sediment, but both sediment and nutrient loading are targeted for reduction.

The proposed Basin Plan Amendment (BPA) will not by itself require specific project implementation, and the Water Board will not directly undertake any actions that could physically change the environment. Adoption of the proposed BPA could indirectly result in local jurisdictions selecting specific projects to satisfy the requirements of the BPA. The Water Board is required by the California Environmental Quality Act to analyze impacts and mitigation measures that are a reasonably foreseeable consequence of adopting the BPA.

The technical and scientific characteristics of the TMDL can be found in the Lake Tahoe TMDL Technical Report (2007) in chapters 3, 4 and 5. The report details the sources of pollutants and their impacts on lake clarity. The Water Board cannot specifically prescribe design, location, type or particular manners of compliance with TMDL implementation plans to address these pollutants (CWC Section 13360). The Water Board can require dischargers to implement fine sediment and nutrient controls necessary to attain the water quality standards of Lake Tahoe. The proposed TMDL will be implemented primarily through regulation of urban runoff via waste discharge requirements and National Pollution Discharge Elimination System permits, and rural lands pollutant source control performed by public land management agencies. The first 20 years of the proposed TMDL Implementation Plan will encompass achievement milestones every five years. Economic analysis of the proposed TMDL implementation can be found in Chapter 6 of the Pollutant Reduction Opportunity Report (2007).

Typical implementation measures for reduction of sediment may include:

- Residential Best Management Practices
- Stream Restoration
- Stormwater runoff controls (infiltration basins, filtration galleries, etc)
- Dirt road maintenance or decommissioning
- Road abrasive application management and recovery
- Slope stabilization

Some implementation actions will likely require that dischargers obtain various federal, state, or local permits, such as streambed alteration agreements from the Department of Fish and Game, waste discharge requirements from the Water Board, local grading permits, and permits from the Tahoe Regional Planning Agency. These agencies may use this environmental documentation, and are expected to conduct more detailed environmental analyses when specific implementation actions are identified and proposed by the dischargers.

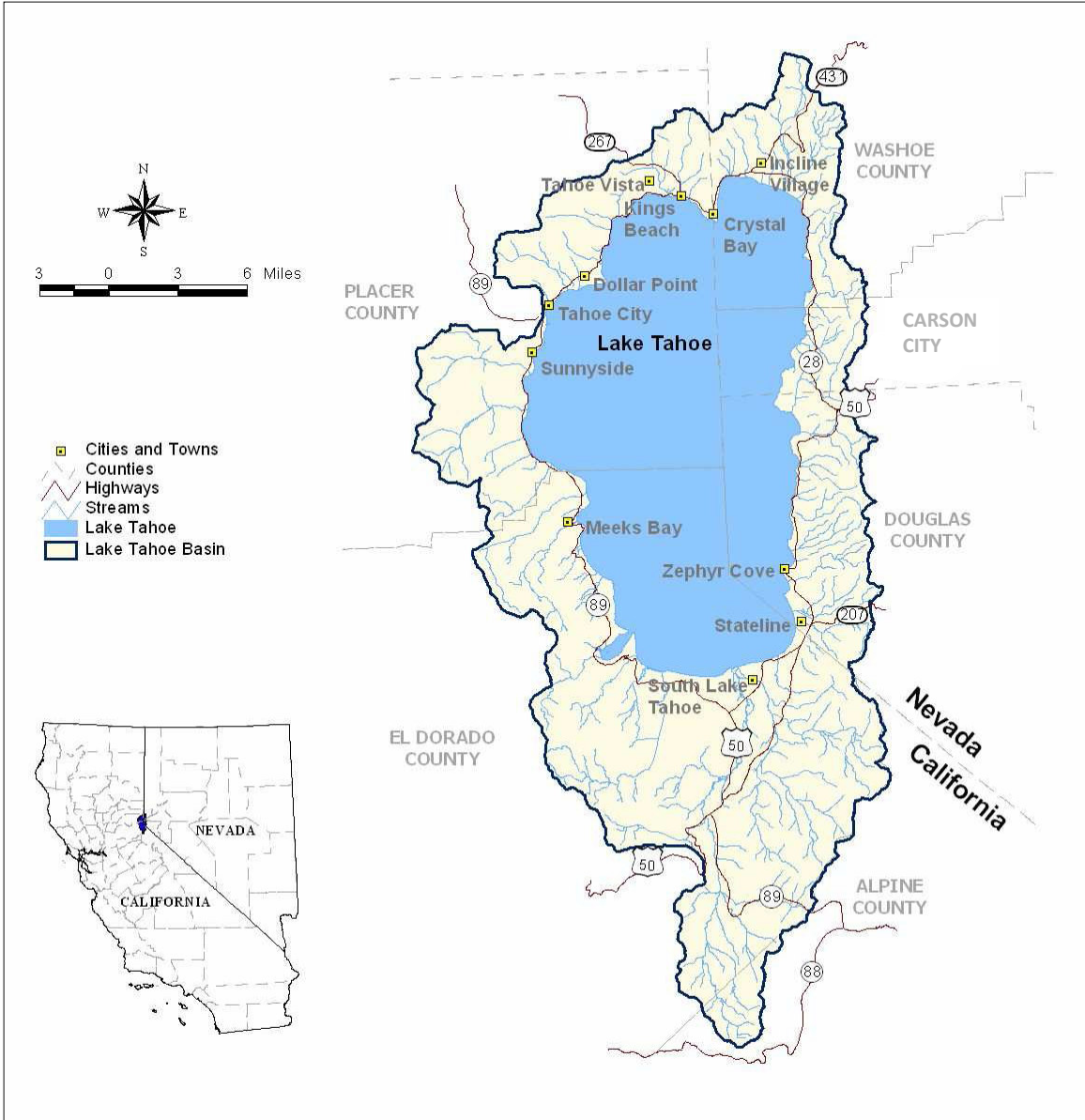


Figure 1 Lake Tahoe Watershed Location (Tetra Tech 2007)