Water Quality Report Card

Sediment and Nutrients in Lake Tahoe

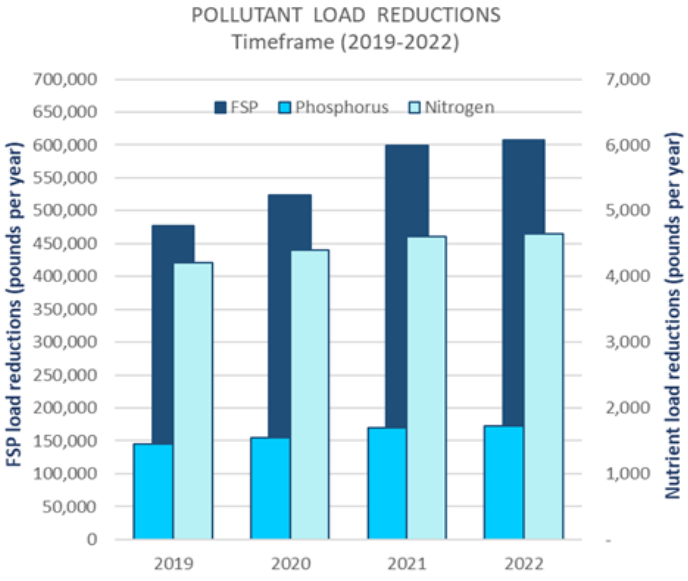
Regional Water Board:	**Lahontan, Region 6**
Beneficial Uses Affected:	**REC-2**
Implemented Through:	Municipal NPDES Stormwater permits; land and stream restoration projects; TRPA transportation policy
Effective Date:	**2011**
Attainment Date:	**2076**
STATUS	**Conditions Improving**
Pollutant Type:	Nonpoint Source
Pollutant Source:	Urban Stormwater Runoff Non-point Source Runoff Atmospheric Deposition

Water Quality Improvement Strategy

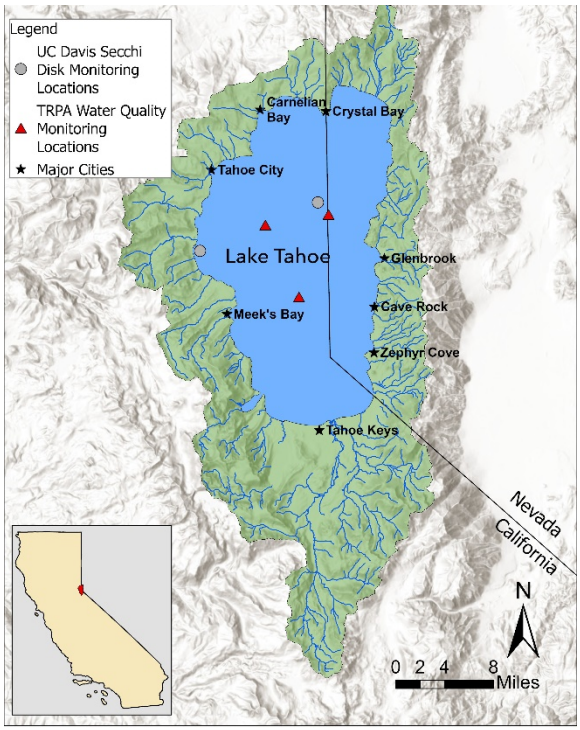
Implementation of the Lake Tahoe Total Maximum Daily Load (TMDL) focuses on tracking pollutant reductions to address the declining clarity of the lake. The decrease in clarity is attributed to both the increase in fine sediment particles (FSP), which refract light, and the increase in algae production due to nitrogen and phosphorus inputs. Urban runoff is the largest FSP source, contributing 72% of the overall load. Municipal stormwater permits are used to target the urban runoff. Other FSP sources include atmospheric deposition (ATM), disturbed forest areas, and stream channel erosion. The Lake Clarity Model has been used to identify the primary sources of pollution to the lake. Lahontan Water Board and the Nevada Division of Environmental Protection adopted the Lake Tahoe TMDL to improve clarity. The TMDL sets specific goals, calling for a 65% reduction in FSP loading, and a 10% reduction in total nitrogen (TN) and 35% reduction in total phosphorus (TP) to control algal growth.

TMDL implementers are categorized as either urban or non-urban; however, most pollution is assumed to originate from urban stormwater. The TMDL Clarity Crediting Program provides guidance to implementers, outlining expected reductions in pollutant loads and specifying where and how those pollutants should be minimized. The Program then guides on-the ground verification of conditions and credits are granted based on compliance.

Water Quality



Lake Tahoe Watershed



Water Quality Outcomes

- *In 2022, Lake Tahoe's annual average clarity was 71.7 feet compared to 61 feet in 2021. The annual average clarity has improved since the previous worst average for secchi depth, which occurred in 1997 at a depth of 64.1 feet.*
- *Long-term trends are better indicators of lake health because annual variability is high. The general trend shows the rapid decline in clarity has been halted and has leveled off since the TMDL implementation.*
- *Through the Lake Clarity Crediting Program, local government and state highway departments have reduced almost 600,000 lbs/year of Fine Sediment Particles, a 23% reduction. This pollution was diverted away from Lake Tahoe and surpassed the 2021 target of 21%. Participants of this program also reduced nitrogen and phosphorus pollution.*
- *The Lake Tahoe Clarity Model is currently being updated.*
- *Municipal stormwater permits have been updated.*

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