



Lake Tahoe Total Maximum Daily Load Forested Uplands Source Category Group 2006-2007

Integrated Environmental Restoration Services (IERS) was selected by the Lahontan Regional Water Quality Control Board, Tahoe Regional Planning Agency, and Nevada Division of Environmental Protection to develop a technical approach for estimating sediment and nutrient load reductions associated with a variety of upland restoration treatments and forest management practices for forested uplands in the Lake Tahoe Basin. This project was part of the effort to establish a Total Maximum Daily Load (TMDL) for the Lake Tahoe Basin, which is setting water quality targets and developing an implementation strategy that will guide restoration projects in the Basin for many years to come.

IERS collaborated with Dr. Mark Grismer from U.C. Davis to analyze a large dataset of field-measured runoff and sediment yield values derived from extensive rainfall simulation research throughout the Tahoe Basin. Regression equations were developed to estimate sediment loading for various soil conditions and levels of treatment. The results of this work were used in further TMDL modeling efforts to determine potential reductions in fine sediment loading possible through upland restoration and to guide policymakers in prioritizing sediment reduction efforts.

In April 2008, IERS secured a grant from the California State Water Quality Control Board to conduct a TMDL implementation pilot study in the highly disturbed Homewood Creek watershed on the west shore of Lake Tahoe in order to strengthen TMDL implementation throughout the Tahoe Basin.

Client: Lahontan RWQCB

References: Lahontan RWQCB Dave Roberts (530) 542-5400
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Project Elements

- Evaluation of sediment source control practices
- Statistical analysis of rainfall simulation data
- Load reduction estimates for sediment and nutrients

Key Outcomes

- Loading equations developed from extensive rainfall simulation dataset
- Load reduction estimates for each sub-watershed and entire Tahoe Basin
- Secured grant funding to conduct TMDL implementation pilot study

