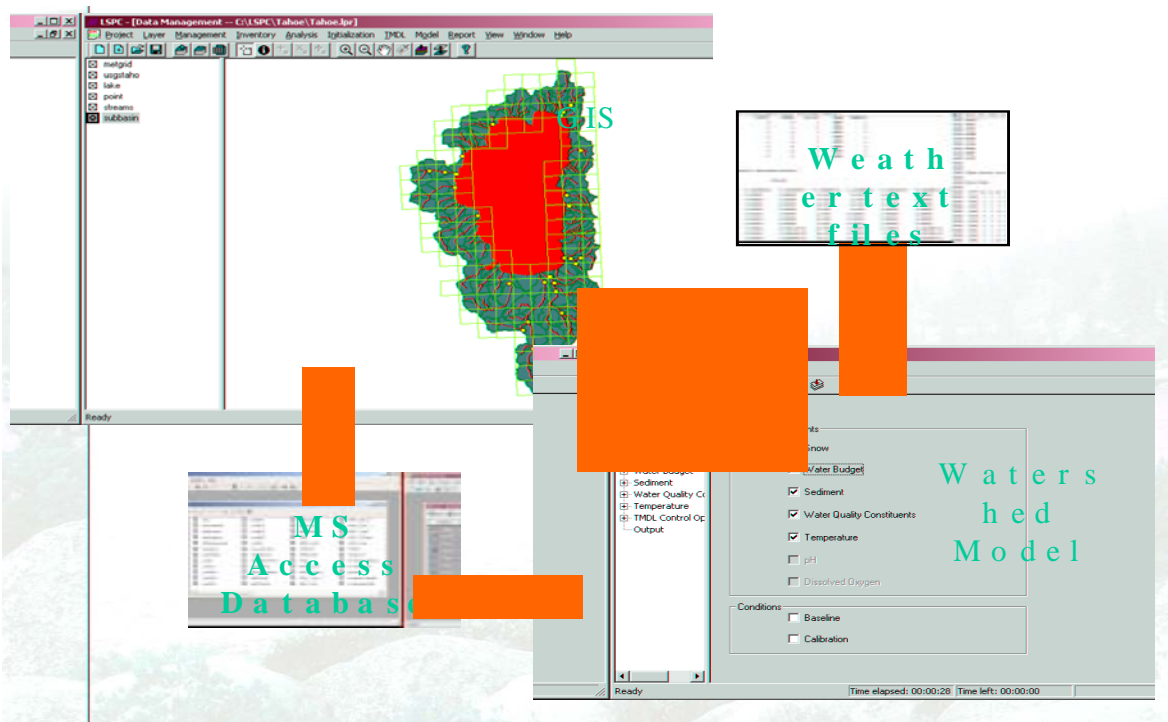


The Lake Tahoe Watershed Model

The Lake Tahoe Watershed Model is designed to support the development of the Lake Tahoe Total Maximum Daily Load (TMDL) to restore water clarity. The watershed model focuses on the terrestrial portion of the Lake Tahoe watershed and supports the TMDL goal of reducing the amount of sediment and nutrient pollution flowing into the Lake, called loading. The model has two goals: (1) to determine the current amount of sediment and nutrient loading to Lake Tahoe, and (2) to simulate changes in hydrology and pollution loading in the watershed that would occur from implementing different Best Management Practices (BMPs). BMPs are used in Lake Tahoe to control soil erosion and surface water runoff that transport pollutants, sediment, and nutrients into the Lake – all of which impair its water quality and clarity.

A team of experts from Tetra Tech, Inc., an environmental consulting firm, is developing the model under the direction of the Lahontan Regional Water Quality Control Board (Lahontan). The basis of the model is the U.S. Environmental Protection Agency's watershed modeling system. The system includes mathematical equations for simulating watershed hydrology, erosion, water quality processes, and in-stream transport processes.

The Watershed Model is a complex system that will use information from studies underway to support the TMDL process; historical data; and outputs generated from two models: the Stream Channel Erosion model and the BMP Effectiveness Model. Together, these data will provide an accurate picture of the Lake Tahoe terrestrial watershed and its processes.



The Watershed Model is a critical component of developing the final Technical TMDL for Lake Tahoe. The outputs from the Watershed Model will be linked to the Lake Tahoe Water Clarity Model. The data and answers generated by these two models will provide a solid, scientifically based and defensible foundation to develop the Lake Tahoe TMDL. It is anticipated that the

model will be complete by September 2004. Once complete, the model will be housed at Lahontan.

For more information about the development of the Watershed Model, contact Dave Roberts, Project Lead, Lahontan Regional Water Quality Control Board, at (530) 542-5469, droberts@rb6s.swrcb.ca.gov.

References

Lake Tahoe Nutrient and Sediment Total Maximum Daily Load, Winter 2002-2003 Newsletter, Nevada Division of Environmental Protection and Lahontan Regional Water Quality Control Board, http://www.swrcb.ca.gov/rwqcb6/TMDL/Tahoe/Winter_2002-03_TMDL_Newsletter.pdf

DRAFT Lake Tahoe Sediment and Nutrient TMDL Problem Statement, Lake Tahoe Hydrologic Unit; Alpine, El Dorado, and Placer Counties, http://www.swrcb.ca.gov/rwqcb6/TMDL/Tahoe/Tahoe_Draft_Problem_Statement_01_30_03.pdf

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