Lake Tahoe TMDL Implementation Tool Box

Research conducted to develop the Lake Tahoe Sediment and Nutrients Total Maximum Daily Load (TMDL) will produce an integrated set of modeling and planning tools that can be applied to a broad range of environmental management questions. Once completed, these tools will form the foundation for implementation of selected load reduction strategies developed through both the TMDL and Pathway 2007 programs. These tools have been specifically developed to address all sources and types of pollutants affecting the clarity of Lake Tahoe, with the ability to adapt to new information and various management applications. Central to the success of achieving identified pollutant load reductions will be the accessibility and application of these tools to direct, every-day, implementation issues and challenges. The Lake Tahoe Implementation Tool Box is being developed to address this need.

The set of tools identified in the following table represent the beginning of this effort as it is anticipated that the list will be added to based upon the input and commitment of other federal, state, and local agencies. In particular, those agencies directly responsible for implementation of water quality improvement projects will have the most to add as the TMDL Implementation Tool Box is intended to represent the full suite of tools necessary for successful water quality planning and implementation. Specifically, the TMDL Implementation Tool Box is intended to:

1) Provide a forum for the development and application of all the tools identified as needed for both water quality planning and implementation.
2) Develop and apply these tools so that they are integrated and compatible
3) Develop a system to allow for timely and appropriate changes to these tools as new information and/or needs are identified
4) Create a forum for close interaction and collaboration between regulatory and implementation agencies
5) Develop a unified set of planning and implementation needs to be funded with existing and/or future funding sources
6) Focus research needs and agency resources

Phase I of the TMDL will be completing several significant efforts intended to evaluate water quality issues on a basin-wide scale for the development of large scale restoration strategies. Specifically, the Lake Tahoe Watershed Model in concert with the Lake Tahoe Clarity Model will be used to determine basin-wide pollutant sources, pollutant loading from each of these sources, and pollutant reductions needed to restore lake clarity. Phase II of the TMDL program will be developing tools to assist in the evaluation and tracking of different pollutant reduction alternatives. As development of the Tool Box continues, it is anticipated that these tools will be combined with others developed for application to small scale (project level) implementation planning and evaluation with the assistance of local project implementers. Phase III of the TMDL will allow for continued refinement and modification to these tools as new information and/or needs are identified.