

**Bolstering Water Quality Monitoring and Modeling
via the Minnesota Clean Water Legacy Act**

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ABSTRACT

The State of Minnesota has embarked on a concerted effort to address impaired waters under the state Clean Water Legacy Act of 2006 (CWLA). Coming out of a governor's initiative to bring together all stakeholders involved in and affected by water quality management, the CWLA has thus far been funded at over \$70 million over a 3-year period. The CWLA is greatly expanding state, local, and volunteer water quality monitoring capabilities and the state's capacity to develop and implement total maximum daily load studies (TMDLs). Minnesota has completed TMDLs for 95 conventional impairment parameters as of March 2008, and will increase that number by at least 50% in 2008 and at least double it in 2009.

This presentation will provide background on the cooperative development and passage of the CWLA. This will include discussion of the funding need estimates and projections for watershed and project monitoring, and modeling/TMDL development, used during CWLA development. The presentation will also report on progress being made in implementing the monitoring and TMDL components of the CWLA. Current expanded monitoring efforts and new monitoring and diagnostic approaches, as well as modeling approaches that have been used in approved and currently underway TMDLs, will be described. The presentation will include a case study of a pilot in the St. Croix River Basin of a new intensive watershed monitoring approach that is intended to lead directly into TMDL development.

The resources provided by the Clean Water Legacy Act are enabling great progress to be made in addressing impaired waters in Minnesota. There is the strong potential for these resources to provide the data necessary to enable a wholesale data-driven change to water quality management efforts in the state. The establishment of this data foundation will be accomplished through intensive watershed monitoring of the state's 81 major watersheds on a 10-year cycle.

KEYWORDS

Clean Water Legacy Act, impaired waters, intensive watershed monitoring, modeling, total maximum daily load (TMDL), water quality, watershed.