



Elk River Total Maximum Daily Load (TMDL) Project

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Impaired waters are those that do not meet state water quality standards as set forth in Minnesota Statute Chapter 7050. Common impairments are for dissolved oxygen, nutrients, turbidity, bacteria, or metals. Impaired water bodies fail to meet criteria required to support aquatic life, or allow the designated use of a water body, such as swimming or fishing.

The Federal Clean Water Act requires the Minnesota Pollution Control Agency (MPCA) to identify impaired water bodies and develop a total maximum daily load (TMDL) for each parameter for which the water body does not meet standards. The TMDL is the total amount of a pollutant a water body can take on while meeting the established water quality standard(s).

A TMDL study is typically developed in four phases:

- Phase 1 - existing data is reviewed, data gaps are identified, and plans are developed to collect and analyze the additional data needed
- Phase 2 – that additional data is collected and evaluated
- Phase 3 – the TMDL is set. Loads are allocated to point and non-point sources and an implementation plan to meet load reductions is prepared
- Phase 4 – plans are implemented to reduce loads to the limits set in Phase 3, and to return the water body to meet water quality standards.

Elk River TMDL Progress

In August 2008, the Elk River Watershed Association (ERWSA) entered into a contract with the MPCA to conduct TMDL studies on Mayhew Lake (impaired for nutrients), Big Elk Lake (impaired for nutrients) and the Elk River from Big Elk Lake to the St. Francis River (impaired for turbidity and *E. coli*).

One of the first steps in the process was for professionals from the ERWSA, Wenck Inc., and the MPCA to complete a visual survey of the Elk River and its tributaries. This survey, completed in September 2008,



Elk River at 73, looking east.

was done to identify possible causes of pollutants along the Elk River and its tributaries. The results of the field survey were incorporated into a Phase 1 TMDL report which was completed in January 2009. In addition to describing the field survey results, the Phase 1 report lays out the lake and stream sampling that will be carried out over the summer of 2009. The field survey, along with water quality data collection will allow professionals to determine where the pollution such as E. coli, turbidity and nutrients are originating.

What is Next?

The next steps in the TMDL project require a stakeholder meeting, water quality sampling and the completion of a detailed computer analysis of the watershed. The stakeholder meeting will be held to introduce the TMDL studies to landowners, introduce our preliminary findings and most importantly, to get feedback from the people that live in the watershed. These meetings will take place in early March 2009.

What You Can Do

Many opportunities exist for the public to participate in helping protect the waters in the Elk River watershed. The following are examples of implementation strategies to help reduce pollutants in area lakes and rivers.

- Participate in the TMDL Process – residents are encouraged to learn about the TMDL process and attend public meetings. The meetings will also be an opportunity to learn about urban stormwater management, septic system upgrades, buffer installations, and other practices that could be implemented to reach TMDL goals.
- Plant a shoreline buffer or a rain garden – those who live along a lake or river can take advantage of financial incentives to plant buffers or rain gardens to prevent sediment, nutrients, or bacteria from entering the water.
- Plant farm buffers – farmers who have rivers or lakes near their properties can qualify for incentives from their local SWCD to join federal conservation programs or install buffers.



Big Elk Lake, summer 2008.

For More Information

For more information about this study and how it relates to MPCA's Impaired Waters programs, contact:

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