



Minnesota
Pollution
Control
Agency

Upper Mississippi Basin: Clearwater River – Five Lakes

Water Quality/Impaired Waters 8.21a • June 2010

Impaired waters are those that do not meet state water quality standards as set forth in Minn. R. ch. 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).

TMDL progress in the Clearwater River Watershed

TMDL studies were already conducted for one stretch of the Clearwater River, and for six lakes within the watershed. These studies include:

- Clearwater River between County Ditch 44 and Lake Betsy (bacteria)
- Lake Louisa (nutrients)
- Lake Betsy (nutrients)
- Clear Lake (nutrients)
- Lake Marie (nutrients)
- Scott Lake (nutrients)
- Union Lake (nutrients)

The TMDL studies have been completed and were approved by the U.S. Environmental Protection Agency in January 2010.

The TMDL report quantifies existing loads and required reductions that are necessary to meet state standards. An implementation plan has been developed with stakeholder input. A monitoring plan to gauge implementation effectiveness has been prepared. The Clearwater River Watershed District (CRWD) has received its first implementation grant to begin restoration activities.

The CRWD has recently completed a draft TMDL study for five additional nutrient-impaired lakes, including:

- Albion
- Henshaw
- Augusta
- Caroline
- Swartout

Results of this study indicate average nutrient load reductions of 25-95 percent in these five lakes are necessary to restore them to state standards.



The findings of the TMDL studies were presented at several public meetings held throughout the watershed. Project documents, including the draft implementation plan, are available at the Clearwater River Watershed District Web site, www.crwed.org, and on the MPCA's Web site at www.pca.state.mn.us/water/tmdl/project-clearwaterriver-ofn.html.

Implementation of the recommendations will depend on securing funding, and approval of the TMDL reports by the MPCA and the U.S. Environmental Protection Agency.



What you can do

Many opportunities exist for the public to participate in helping protect the waters in the Clearwater River watershed. The following are examples of implementation strategies to help reduce pollution.

- Participate in the TMDL Process – residents are encouraged to learn about the TMDL process and attend public meetings sponsored by the CRWD to present study results. The meetings will 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. Visit www.crwed.org to find out more.
- Plant farm buffers – farmers who have rivers or lakes near their properties can qualify for incentives from the Watershed District to join federal conservation programs or install buffers. Contact the Watershed District at 320-274-3935 for more information.

For more information

For more information about this study and how it relates to MPCA's Impaired Waters programs, contact 651-296-6300 or 800-657-3864 and ask for the Upper Mississippi Basin TMDL staff or the Public Information Officer in our Brainerd office.

