



Assessing and Listing Impaired Waters

The assessment of Minnesota's rivers, streams and lakes is tied to the goals of the 1972 Clean Water Act (CWA) for restoring and protecting the ecological integrity of America's waters.

One CWA strategy used to meet these goals is identifying, listing and restoring "impaired waters." The CWA requires states to:

- assign designated uses to waters and develop standards to protect those uses
- monitor and assess their waters
- list waters that do not meet standards
- identify pollutant sources and reductions needed to achieve standards
- develop a plan to implement restoration activities

What are impaired waters?

The CWA requires states to adopt water quality standards to protect waters from pollution. These standards define how much of a water quality parameter can be in a water and still allow it to meet designated uses, such as drinking water, fishing, swimming, irrigation or industrial purposes.

"Impaired waters" are those waters that do not meet water quality standards for one or more water quality parameters, thus, they are "impaired" or not supporting their designated uses. Section 303(d) of the CWA requires states to assess all of their waters and publish a list of impaired waters (list) every two years. Assessing Minnesota's waters and developing the list involves a rigorous process that takes more than two years to accomplish.

How impaired are waters identified and listed?

The assessment and listing process involves dozens of Minnesota Pollution Control Agency (MPCA) staff, other state agencies and local partners. The goal of this effort is to use the best data and best science to assess the condition of Minnesota's surface water. The process requires a high level of planning and cooperation among MPCA staff and partners. The many tasks that go into developing the list can be grouped into six major milestones, as follows:

1. **Data collection:** The MPCA has arranged its water monitoring activities on a rotating watershed approach. This provides a comprehensive dataset (chemical, biological, bacteriological, and physical) over six to eight watersheds every year. Watersheds are monitored for two consecutive years prior to assessment.
2. **Call for data:** The first step in identifying impaired waters involves collecting all of the monitoring data available for Minnesota's water resources.

The MPCA relies on data it collects along with data from other credible sources, such as other state and federal agencies, local government and volunteers, to assess water bodies. The data must meet rigorous quality-assurance protocols before being used. Early in the assessment timeline, the MPCA publishes a "Call for Data" using a variety of distribution formats to request externally collected monitoring data. MPCA works directly with local watershed partners ahead of sampling to ensure that available data will be provided to MPCA in time for assessments.

1. **Data analysis:** Once all available data are checked for accuracy and entered into the database, MPCA scientists analyze the data to identify potential impairments. Assessments use the water-quality standards (see MPCA website) according to the MPCA Guidance Manual for Assessing the Quality of Minnesota Surface Waters. The guidance contains information on standards, data collection, data assessment requirements, and methodologies used to conduct an assessment. This data analysis is comprised of two parts.

The first is a parameter specific analysis (e.g., fish, macroinvertebrates, dissolved oxygen) completed by program specific staff (i.e., biologists review biological data, water quality specialists review water chemistry data, etc.). The second is the assessment of water's designated use (e.g., aquatic life and recreation, drinking water) is made by a watershed team consisting of MPCA staff. This assessment represents a preliminary decision which moves to the professional judgment group (PJG) for consideration. In addition to completing the very detailed, science-based assessments, MPCA staff evaluates waters currently on the list for potential de-listing and revise the assessment and listing guidance as needed.

2. **Professional review:** Once the preliminary assessments are complete, the MPCA watershed team holds a meeting with resource managers working in the specific watersheds being assessed. Each PJG consists of MPCA staff, the collectors of the data under review, and other local and regional water resource experts. The groups discuss the preliminary assessments and provide a local perspective. The preliminary assessments are either confirmed by the group or refined, based on additional knowledge of the water resources. Waters are assigned to categories such as "not impaired," "more data needed to complete an assessment," and "impaired." A record of the discussions and decisions are maintained by MPCA.
3. **Informational meetings:** After the PJG meetings, MPCA staff compiles a draft Impaired Waters List consisting of all the waters that have been assessed as impaired. The MPCA then holds meetings across the state to review the draft list with interested parties and answer questions about the assessment and listing process, the draft list, and impaired waters in general.
4. **Public notice:** The next step is the formal public notice period. The draft list and request for comments are published in the *State Register* and also mailed to more than 400 contacts. Following the comment period, responses to comments are developed and the draft list is modified as necessary based on the comments received.
5. **U.S. Environmental Protection Agency (EPA) approval:** For the last step in this process, the final draft Impaired Waters List is provided to the EPA for approval. States are required to submit their final draft list to EPA by April 1, of even-numbered years.

Beyond the impaired waters list

The CWA requirements do not stop with the approval of the impaired waters list. States are also required to prepare total maximum daily load (TMDL) studies for each impairment. A TMDL defines the maximum amount of a substance that a water body can receive and still meet standards. TMDLs also set limits and reduction goals for restoring impaired waters so they meet standards. The impaired waters list includes those waters needing a TMDL plan and those for which plans has already been developed and approved by EPA. The Inventory also includes water bodies that are naturally impaired, such as the arsenic exceedances in the Red River of the North.

More information about TMDLs can be found at the MPCA's website.

For more information

For more information on assessments contact the MPCA at 651-296-6300 or 1-800-657-3864.