



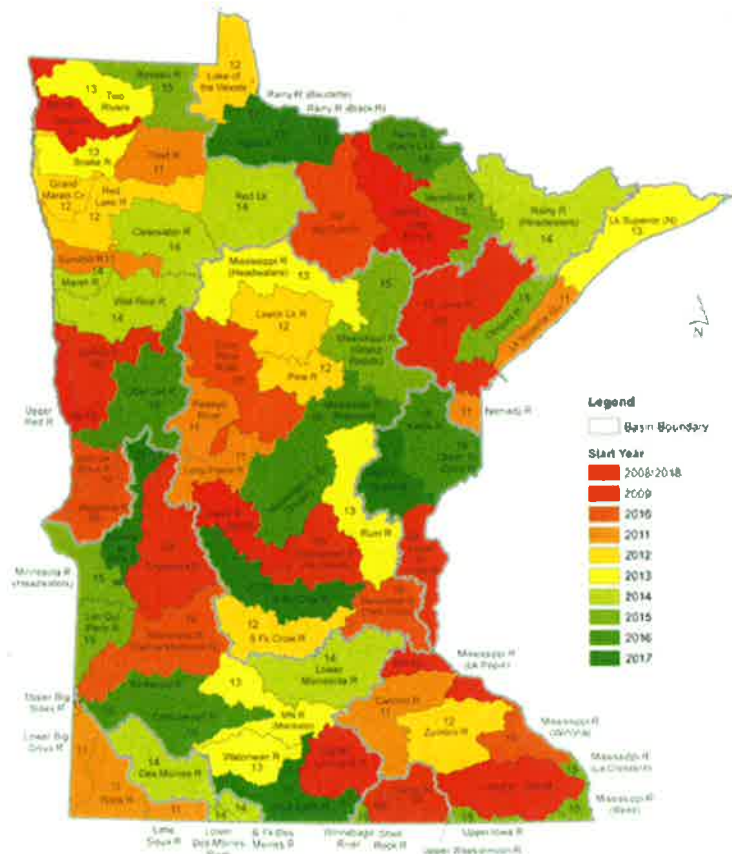
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Watershed approach to restoring and protecting water quality

The passage of Minnesota's Clean Water Legacy Act in 2006 provided policy framework and money for state and local governments to accelerate efforts to monitor, assess, and restore impaired waters, and to protect unimpaired waters. Following the passage of the Act, the MPCA began implementing what it calls the Watershed Approach. There are 81 major watersheds in Minnesota. Intensive water quality monitoring and assessments will be conducted in each of these watersheds every 10 years. During the 10-year cycle, the MPCA and its partner organizations work on each of the state's watersheds to evaluate water conditions, establish priorities and goals for improvement, and take actions designed to restore or protect water quality. When a watershed's 10-year cycle is completed, a new cycle begins.

The primary feature of the watershed approach is that it focuses on the watershed's condition as the starting point for water quality assessment, planning, implementation, and measurement of results. This approach may be modified to meet local conditions, based on factors such as watershed size, landscape diversity, and geographic complexity (e.g., Twin Cities metro area).

Intensive watershed monitoring map



Video series on the watershed approach

MPCA produced a four-part video series on Minnesota's watershed approach to restoring and protecting the state's water quality.

Check out the new videos.

Process for restoring and protecting water quality

Find out what's

Along with the Watershed Approach, the MPCA developed a process to identify and address threats to water quality in each of these major watersheds. This process is called WRAPS or the Watershed Restoration and Protection Strategy. WRAPS has four major steps or phases.

Step 1. Monitor water bodies and collect data

The cycle begins with a two-year intensive monitoring program of lakes and streams in which the MPCA determines their overall health and identifies impaired waters. Results of monitoring that other state, federal, and local organizations have performed for various purposes are included in the process. Additional information is collected on the watershed's physical characteristics, including land use, topography, soils, and pollution sources. Outcomes of this step include the creation of a **Monitoring and Assessment Report** and a **Stressor Identification Report** on the watershed's biota (fish, bugs, etc.). Learn more about [monitoring](#).

Step 2. Assess the data

Based on the results of the monitoring in step one, MPCA water quality specialists evaluate the data to:




- determine whether or not water resources meet water quality standards and designated uses
- identify waters that do not meet water quality standards and list them as impaired waters
- identify waters that should be protected
- identify stressors affecting aquatic life in streams

Learn more about [assessment and stressor identification](#).

Step 3. Develop strategies to restore and protect the watershed's water bodies

Based on the watershed assessment, a WRAPS report and a Total Maximum Daily Load (TMDL) are completed. The two provide details on water quality issues and identify what needs to be done to clean up streams and lakes that are impaired and to protect those that are at risk of becoming impaired.

Download helpful resources. MPCA staff and contractors will use these tools:

-  [Watershed Restoration and Protection Strategy \(WRAPS\) Report template \(wq-ws4-03\)](#)
-  [WRAPS Report Strategy Table 7 \(wq-ws4-03a\)](#)
-  [Addressing Lakes in Watershed Restoration and Protection Strategies - Lakes in WRAPS Guidance \(wq-iw1-48\)](#) provides pertinent details specifically for lakes

Step 4. Conduct restoration and protection projects in the watershed

In this step, restoration and protection projects are implemented in the watershed. Various local units of government, including watershed districts, municipalities, and soil and water conservation districts, take the lead in developing and carrying out implementation plans based on what is learned during the earlier steps of the process. Civic engagement and public participation are core elements of all steps throughout the process.

Benefits of the watershed approach

going on in your watershed

Find information about your watershed by using our interactive map or by doing a search for your city or town.



Healthy waters

The Walker Pilot-Independent is running a "Healthy Waters" series to help residents understand the importance of healthy waters to their lives. Read [WRAPing about the watershed](#), the first in the series.

MPCA adopted the watershed approach in 2008, as recommended by the Clean Water Council and directed by the Minnesota Legislature. A significant share of the funding for water quality management is provided by the Minnesota Clean Water Fund.

The improved system allows efficient and effective use of public resources in addressing water quality challenges across the state. Concentrating efforts at the major watershed scale ensures:

- an ongoing, predictable cycle for water quality management and evaluation
- a more efficient approach to addressing impairments
- a common framework for monitoring, TMDL studies, assessments, setting required pollutant reductions, and implementation strategies
- improved collaboration and innovation
- increased stakeholder interest and local support
- a reduction in the cost of improving the quality of waters

The water quality management cycles for the 81 major watersheds are staggered, with 8 to 10 watersheds beginning a new cycle each year. By 2017, all watersheds will have at least begun their first cycle, and those that began in 2008 will enter their next cycle.

For more information

To learn more about the watershed approach:

-  [Watershed Approach to Condition Monitoring and Assessment \(wq-s1-27\)](#)

Last modified on May 11, 2015 16:40

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