



Water Program budget

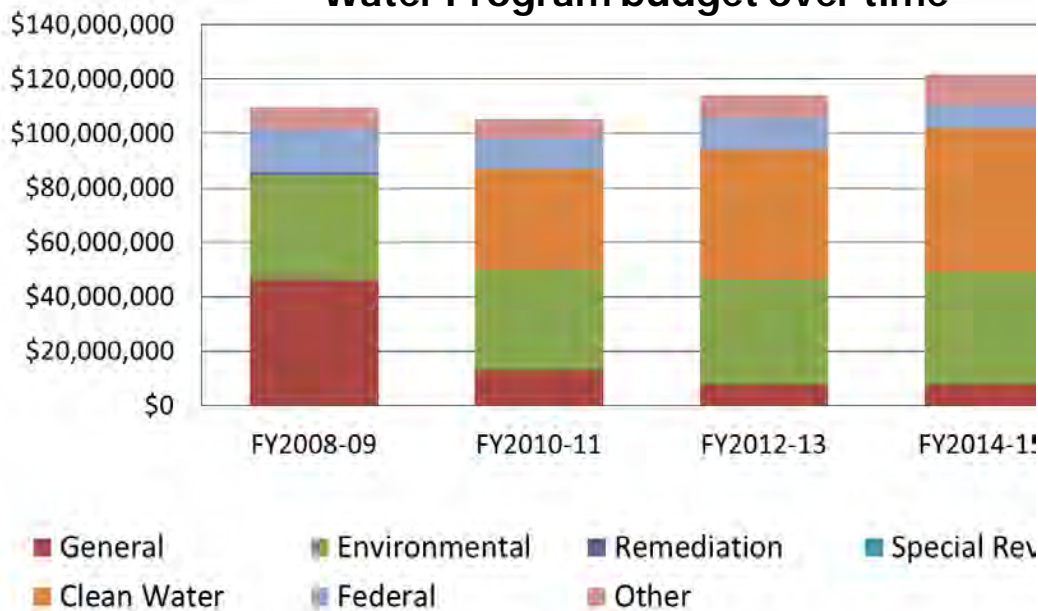
Performance through FY 2013 and proposal for FY 2014 and FY 2015

The MPCA Water Program protects and improves Minnesota's rivers, lakes, wetlands, and groundwater so they support human health, rich and diverse populations of aquatic life and ample recreational opportunities. The program evaluates the condition of the state's water resources and uses that information to develop strategies to restore impaired waters and protect waters that currently meet water quality standards. The program's activities benefit all citizens and are closely tied to the work of regulated parties and other partners in water quality protection and restoration efforts. The MPCA has been delegated authority by the U.S. Environmental Protection Agency to act as its representative when issuing federal permits and enforcing federal environmental laws in Minnesota.

The MPCA Water Program develops water quality standards, monitors surface water and groundwater quality, regulates discharges of pollutants into the state's waters through the issuance of various permits, develops restoration and protection plans for the state's major watersheds, and provides grants to partners well-positioned to improve water quality. Collectively, these activities constitute a comprehensive approach used by the MPCA to ensure that the state's water resources are clean, healthy, and sustainable.

Budget Trends

Water Program budget over time



Strategic overview

The MPCA's strategic vision is that Minnesota's clean water supports aquatic ecosystems, healthy communities and a strong economy. The agency strategic plan lays out goals and objectives that help meet that vision. The water program goals include:

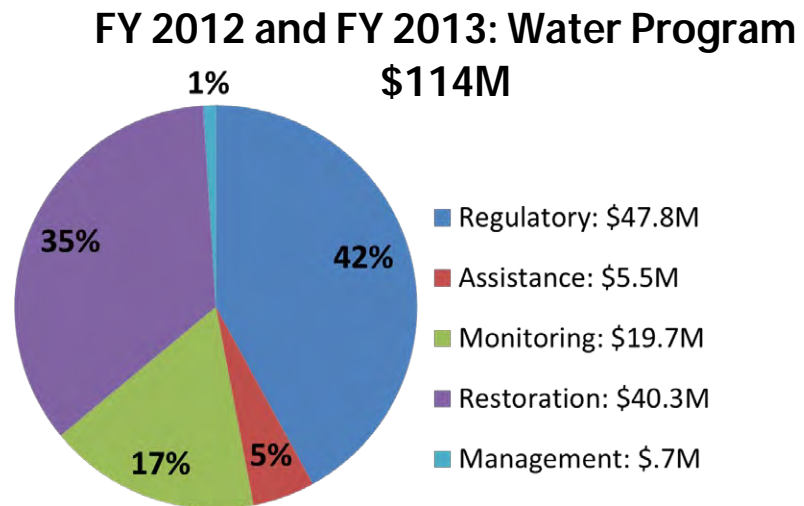
Goal W1: Lake, stream, wetland, and groundwater conditions are evaluated and communicated.

Goal W2: Pollution from all sources is reduced or prevented.

Goal W3: Minnesota's surface water and groundwater management system is streamlined and effective.

These goals are supported by measurable objectives and associated metrics that help gauge how well we are doing at delivering services and achieving desired results. Measuring performance allows us to manage programs effectively.

Agency progress in the water program is measured in five categories including regulatory, assistance, monitoring, restoration and management. The chart at right shows water program allocations by activity in the FY 2012 and FY 2013 biennium. The next sections provide more detail about how these and previously allocated dollars have been used to achieve environmental and operational results.



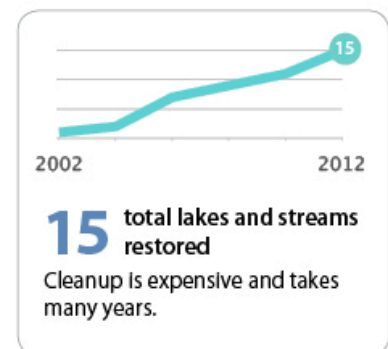
Water program: environmental metrics

What to track and why

The MPCA uses a "Watershed Approach" to implement an ongoing 10-year cycle for monitoring the state's 81 watersheds and taking actions to protect, improve and restore water quality. The Watershed Approach focuses on the health of the watershed and uses this common interest to provide for better coordination between federal and state government and local partners, including watershed districts, consultants, non-profit groups, and citizens.

Environmental results

Water pollutants from point or regulated sources in Minnesota have been significantly reduced in the past decade. However, substantial reductions in non-point or unregulated sources are still necessary to make additional progress toward meeting standards.



Water program: activities and operational metrics

Regulatory

Water quality permit goals are in place to ensure the discharge of treated wastewater to surface waters and groundwater is protective of public health and the environment. The MPCA's water permit and compliance programs address wastewater (municipal and industrial), stormwater (construction, industrial, and municipal), feedlots, and subsurface sewage treatment systems (SSTS).

Operational results

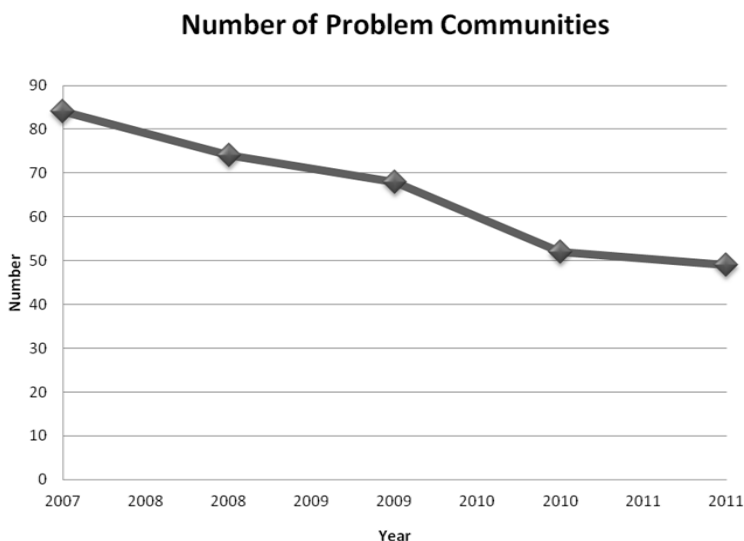
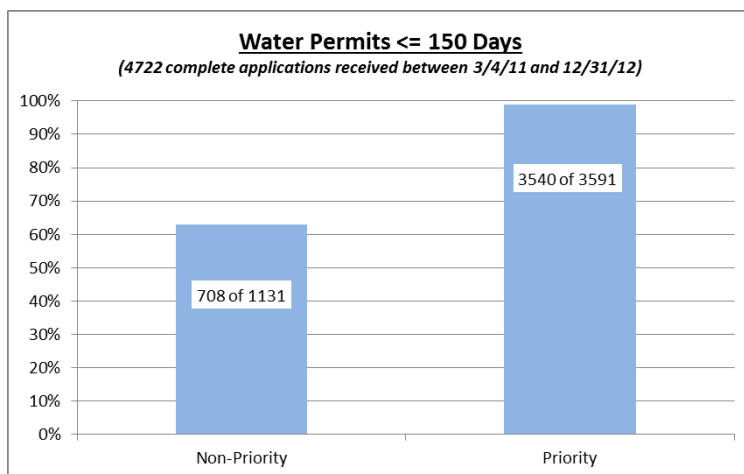
A successful permitting program issues a protective and timely permit that balances human health, environmental and economic concerns. To enhance environmental protection and support job growth and economic development, the MPCA prioritizes the issuance of permits related to construction. Approximately 99 percent of water construction permits and about 63 percent of non-priority permits meet the goal of issuance within 150 days.

The MPCA has a water quality compliance rate of 98.9 percent. Though the compliance rate is relatively high, the MPCA must continue to target specific industries to gain an understanding of why permit conditions are not met and provide guidance as appropriate. Industries should take advantage of the opportunity for advisory inspections to ensure they are on target to meet all environmental requirements.

The SSTS program works with local government units to manage approximately 500,000 wastewater treatment systems (about 25 percent of the State's wastewater). The MPCA is working with local partners to strengthen SSTS programs by establishing a new product registration process, providing financial assistance to counties and funding programs to seek and fix failing systems.

An estimated six percent of subsurface sewage treatment systems are imminent threats to public health and the environment. Another 17 percent of these systems fail to protect ground waters. However, Minnesota is making progress in eliminating the illegal discharge of sewage onto the land and into surface waters. Specific progress in the last three years includes:

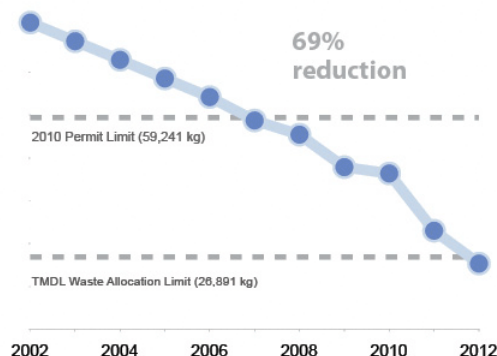
- Improvements to 25 communities in southern Minnesota which now have modern wastewater treatment systems
- Proper treatment of an additional 230 million gallons of sewage by 31 small communities (212 million gallons) and 330 individual homes (18 million gallons)
- 81 additional small communities now working to determine improved wastewater treatment options



The MPCA stormwater program will re-issue the General Construction Stormwater permit. Updates to the permit, which expires August 1, 2013, will reflect changes at the federal level as part of the Clean Water Act. While the primary changes address federal rules, the MPCA is also revising the permit to clarify existing language, better align with the municipal stormwater program, address defects, and incorporate changes needed to enhance compliance with the permit. In addition, the agency will require that permit applications be submitted electronically to achieve greater efficiency

The MPCA also regulates the amount of phosphorus discharged from wastewater treatment facilities. Excess phosphorus can lead to low dissolved oxygen conditions that adversely affect aquatic communities. Over the last 10 years, significant reductions have been made, driven in large part by tighter permit limits and good compliance rates from community wastewater treatment plants. In August 2012, the MPCA concluded that even under stressed conditions, like heat and drought, the Minnesota River now has enough oxygen to support aquatic life. Much of this improvement is due to the phosphorus reduction efforts of wastewater treatment plants along the last 20 miles of the river.

Phosphorus in wastewater flowing into the Minnesota River



Clean Water Fund impact: Funding for enhanced County inspections and SSTS corrective actions supports technical assistance and county implementation of SSTS program requirements including issuing permits, conducting inspections, identifying and resolving non-compliant systems, and revising and maintaining SSTS ordinances. Funding for stormwater research and guidance helps measure the performance of existing stormwater infiltration sites, as identified in the Minimal Impact Design Standards (MIDS) project. Staff monitor the range of existing infiltration devices in Minnesota and compare the results to design criteria, maintenance records, and quantify year-round infiltration rates. Staff also develop and refine pretreatment options and standards for municipal stormwater treatment.

Assistance

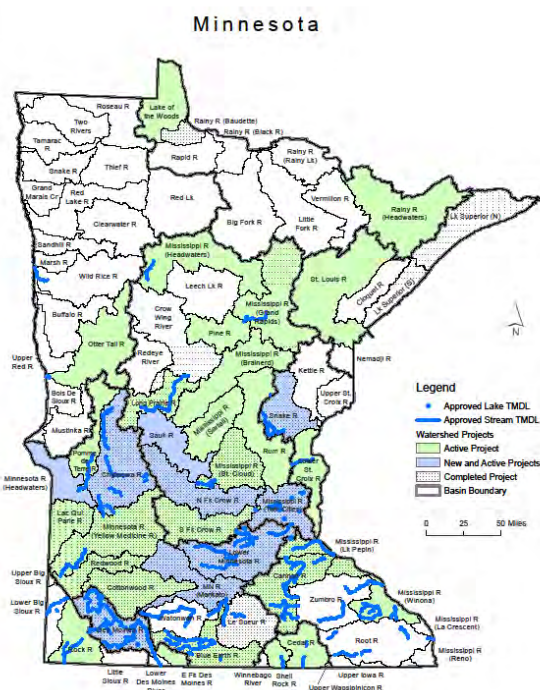
Water is a valuable resource. Proper standards and wise management will ensure Minnesotans have abundant water resources into the future that can support consumption, recreational, and industrial needs. The MPCA provides complete rulemaking for water quality standards and provides assistance to municipalities, industries and private citizens to reduce water usage, meet standards, and comply with rules. The MPCA also provides TMDL (total maximum daily load) support to help restore impaired waters.

Operational results

The watershed approach allows the Agency to shorten the time it takes to complete TMDLs. At the end of 10 years, the MPCA will have cycled through all major watersheds, completing monitoring and TMDL and protection studies across the entire state.

Good progress is being made on the science needed to establish proper sulfate and nitrogen standards. More than 100 lakes and streams will be sampled with regard to wild rice and sulfate levels in a variety of conditions. The studies will be completed by the end of 2013.

Volunteers and local partners play a crucial role in assessing the health of lakes and streams in Minnesota. Through Surface Water Assessment Grants (SWAG), hundreds of volunteers have participated in projects with local partners to provide water quality data for 1,133 lakes and 1,009 stream sites. To date, the MPCA has awarded 147 SWAGs totaling \$7.4 million, providing funding for training, equipment, and lab analysis of water samples. For FY 2012 and FY 2013, the MPCA awarded seven SWAGs totaling \$523,000.



Clean Water Fund impact: Clean Water Partnership (CWP) funding provides grants to study and implement solutions that protect basins and watersheds of Minnesota before water quality standards are exceeded. The MPCA awarded \$5.2 million in CWP funds in 2012 for 10 projects. Grants were awarded in the amount of \$803,792 from the Clean Water Fund and \$400,000 from the General Fund for diagnostic and education activities. Nearly \$4 million in loan dollars were awarded to implement restoration or protection activities. For details on specific projects please view the 2012 Watershed Achievements Report at www.pca.state.mn.us/yhiz926.

Monitoring

The MPCA conducts a variety of water quality monitoring activities that support the overall mission of helping Minnesotans protect the environment. Monitoring information is crucial to determine if water quality standards are being met to protect public health, recreation, and aquatic life. To be successful at preventing and addressing problems, we need good information about the status of our water resources, potential and actual threats, options for addressing the threats, and data on how effective management actions have been. The MPCA's monitoring efforts are focused on providing that information.

The MPCA's watershed approach involves intensively monitoring the streams and lakes within a major watershed on a 10-year cycle to: determine the overall health of these water resources, identify impaired waters, and identify waters in need of additional protection efforts to prevent impairments. Follow-up monitoring is then conducted in impaired sub-watersheds to determine the cause(s) of the impairments (i.e. the "stressors" impacting the biological community) and begin identification of pollutant sources and priority management zones.

The MPCA also has statewide permanent networks that monitor levels of pollutants being discharged at the mouths of the state's watersheds and measure contaminants in groundwater in the non-agricultural portions of the state. Wetland quality is also monitored.

Operational results

Over the last five years, MPCA has increased monitoring efforts. To date, more than 50 percent of major watersheds have been intensively monitored. By 2017, the expectation is to have all 81 watersheds monitored. In 2018, the cycle will start again to evaluate improvements in water quality and make necessary adjustments to the process.

In addition to monitoring specific watersheds, statewide monitoring for pollutant loads, groundwater contamination, and overall surface water quality is on-going.

The MPCA relies on volunteers to assist with monitoring efforts in our lakes and streams. The MPCA has volunteers on more than 700 stream sites, and 1,200 volunteers monitoring Minnesota lakes.

Restoration

When monitoring and assessment activities have been completed in a watershed, the MPCA works with local government units to develop restoration and protection plans. The MPCA also standardizes modeling and encourages use of best management practices to solve water quality issues.

All watersheds
(81 total)

Monitoring
completed in 42
watersheds

52%

Assessment
completed in 24
watersheds

30%



37 watersheds
have restoration
and protection
strategy projects
underway
(none completed yet)

46%

Operational results

Currently, 37 watersheds have restoration strategy projects underway. An additional seven watershed restoration and protection plans will be initiated in 2013. Local organizations use the information to develop meaningful, targeted implementation plans protect and improve area water resources.

There are several examples of outcomes related to restoration and best management practices. For example, Heron Lake Watershed District in southwestern Minnesota received an Environmental Initiative award in 2012 for its restoration work on Fulda Lakes. The watershed district played a key role in restoring two lakes in the city of Fulda. This grassroots effort started with Fulda residents noticing the degradation of their lakes and seeking help for restoration. Many partners, including government agencies and landowners, collaborated to turn ideas into reality. The Heron Lake Watershed District was able to apply for funds based on the needs described by local landowners. Restoration efforts included:

- Education on urban best management practices
- Filter strips, rock inlets and wetland restoration in an upstream drainage system
- Water level management, dam replacement and fish management
- Outreach on conservation tillage and shoreline restoration
- Improvements to urban stormwater treatment

After these efforts, both Fulda lakes showed a significant decrease in levels of total suspended solids, turbidity, chlorophyll a, and phosphorus. The watershed district is still working to improve the lakes through a Clean Water Partnership grant for a phosphorus reduction initiative in Fulda that includes classroom presentations and rain garden installations. For more stories like Fulda, view the 2012 Watershed Achievements Report at www.pca.state.mn.us/yhiz926.

To date, fifteen lakes and streams have been restored and taken off the impaired waters list.

Clean Water Fund impact: Currently, 37 watersheds have strategy projects underway. These will result in targeted implementation projects allowing effective use of restoration and protection funds. Restoration is expensive and takes time; thus, it is important to be efficient with the Clean Water funds and prioritize projects.

Management

Management activities include business support functions directly related to the water program. Many operational measures reflect the activities associated with management including documentation related to permit and environmental review public notices and enforcement actions. This section also incorporates the activities of the Assistant Commissioner for Water.