

Clean Water Act/Safe Drinking Water Act Interagency Coordination

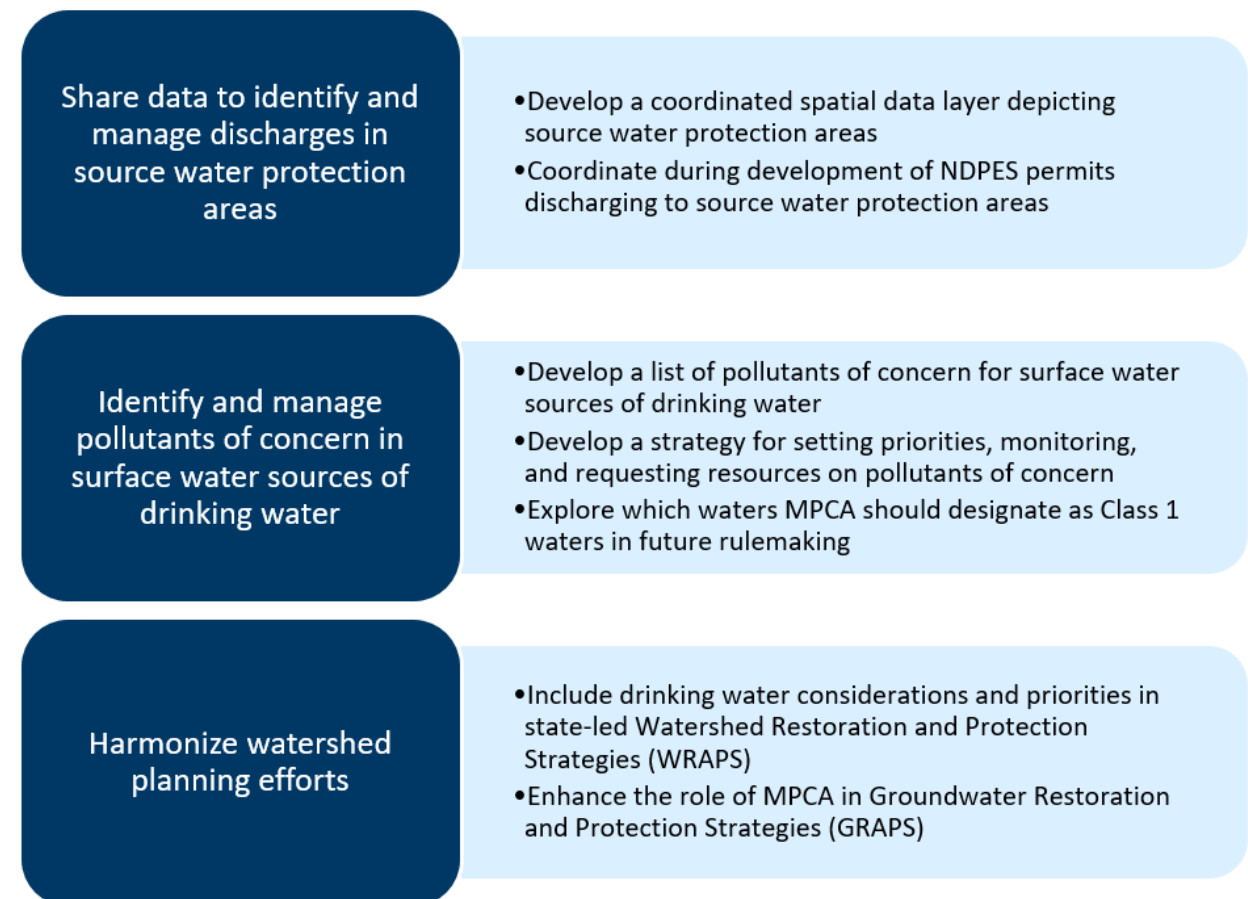
MINNESOTA DEPARTMENT OF HEALTH (MDH) AND
MINNESOTA POLLUTION CONTROL AGENCY (MPCA)

Key messages

MDH and MPCA are coordinating to jointly address drinking water concerns in permitting, water quality standards development, and watershed planning. Through these efforts, the agencies will:

- Share data to identify and manage discharges in source water protection areas;
- Identify and manage pollutants of concern in surface water sources of drinking water; and
- Harmonize watershed planning efforts.

Diagram of agency goals and activities



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Share data to identify and manage discharges in source water protection areas

MPCA has regulatory oversight over facilities and practices such as feedlots, wastewater treatment plants, stormwater, and septic systems. The National Pollutant Discharge Elimination System (NPDES) regulates point sources that discharge into waterbodies. In Minnesota, MPCA facilitates the NPDES permit program. MPCA also conducts environmental review, a process to review and establish project permits that protect the environment.

MPCA and MDH are undertaking activities to better coordinate their work on discharges upstream of drinking water intakes. These activities include:

- Developing a coordinated spatial data layer with source water protection areas to determine wastewater impacts on drinking water resources; and
- Coordinating during development and evaluation of NPDES permits for facilities that impact source water protection areas.

Develop a coordinated spatial data layer depicting source water protection areas

Background

MDH delineates source water protection areas for rivers, lakes, groundwater, and other waterbodies that are used as drinking water sources. Within these areas, public water systems and local partners manage potential sources of contamination to protect drinking water quality.

MPCA staff use source water protection areas to guide permitting decisions on wastewater siting and discharge. However, until recently, updated spatial data on source water protection areas have not been readily available to MPCA staff.

What the agencies are doing

MDH data management staff compiled spatial data on source water protection areas for surface water systems. Data were transferred to MPCA, and the agencies have created a structure (GDRS) to house the data long-term. MDH and MPCA will use this data to identify NPDES discharges upstream of drinking water sources.

Moving forward, MPCA and MDH will work together to regularly update the data. They will also jointly develop a spatial data layer that shows NPDES permit locations and their proximity to source water protection areas. The agencies can use this data layer to identify facilities of concern and develop risk management strategies for public water systems.

Coordinate during development of NPDES permits for facilities that impact source water protection areas

Background

MPCA prepares NPDES permits and pre-permitting environmental review, depending on the scale and type of project. Each is subject to public review and comment. Existing regulatory and

environmental review processes achieve a level of drinking water protection, but MPCA and MDH are re-examining regulatory authorities and joint interests to address emerging concerns, such as unregulated contaminants.

What the agencies are doing

MDH, MPCA, and public water systems are working to better align activities across their regulatory roles and responsibilities. They are drafting Standard Operating Procedures (SOPs) to identify potential drinking water concerns using the new spatial data layer. The goal of these activities is to incorporate drinking water concerns earlier in the permitting process, before the public comment period.

MPCA and MDH will establish criteria to inform permitting decisions upstream of drinking water sources. These may include considerations such as distance to the drinking water source, travel times, discharge types, and cumulative impacts from multiple upstream dischargers. The agencies will adjust their activities and programs to make their alignment dynamic to evolving conditions and needs.

Identify and manage pollutants of concern in surface water sources of drinking water

MDH and MPCA are sharing information and comparing pollutants of concern relative to human health and drinking water. Priority pollutants for both agencies may be those with higher health risk and occurrence across surface waters in Minnesota.

MDH and MPCA are jointly undertaking several activities:

- Developing a list of pollutants of concern for surface water sources of drinking water;
- Developing a strategy for priority-setting, monitoring, and resource requests related to these pollutants of concern; and
- Exploring which waters MPCA should designate as Class 1 (drinking) waters in a future rulemaking.

Develop a list of pollutants of concern for surface water sources of drinking water

Background

MPCA develops and enforces water quality standards for Class 1 waters, which are designated for domestic consumption of drinking water with basic treatment.

MDH is responsible for making sure public water systems meet standards of the federal Safe Drinking Water Act. Under the federal Safe Drinking Water Act, the Environmental Protection Agency (EPA) establishes drinking water quality standards. EPA has established drinking water quality standards for approximately 100 contaminants.

Thousands of other chemicals are used in our modern, industrial world. Contaminants that do not have drinking water quality standards – either for source water or finished water – are unregulated contaminants. Many unregulated contaminants have not been fully evaluated for the risks they pose to human health or the environment. MDH evaluates health risk of unregulated contaminants by developing health-based guidance values and monitoring their occurrence in drinking water sources.

What the agencies are doing

MPCA and MDH are working together to develop a list of pollutants of concern for surface waters used as sources of drinking water. Creating a shared list of priority pollutants will help the agencies target their monitoring and regulatory activities. The agencies will jointly establish criteria to identify important pollutants of concern so they can update the list in the future.

A working group of staff from both agencies has been developing a process to identify and prioritize pollutants of concern. Potential criteria include their presence in surface waters in Minnesota, health impacts, levels found in Minnesota relative to health-based guidance values, and the ability of public water systems to treat and remove the pollutant.

Once the list of priority pollutants is developed, it can serve multiple purposes. MPCA may use the list: to inform rulemaking on additional water quality standards for Class 1 waters; in reviewing permits; or in developing monitoring plans. The list could be used along with other shared data to identify permitted dischargers that could potentially impact drinking water sources.

Through these activities, the agencies will also evaluate which surface waters MPCA should designate as Class 1 in future rulemaking. The agencies will focus on addressing waterbodies within source water protection areas and surface waters that directly influence groundwater-sourced drinking water.

Develop a strategy for setting priorities, monitoring, and requesting resources on pollutants of concern

Background

There is a minimal regulatory framework to address unregulated contaminants in drinking water. State and federal efforts to address unregulated contaminants have largely focused on monitoring and surveillance.

MDH is developing a strategy to manage risks from unregulated contaminants. The strategy will build off of existing agency activities to address unregulated contaminants, including development of health-based guidance and source water monitoring.

Together, MDH and MPCA are creating a strategy for pollutants of concern that can be used in future Class 1 rulemaking.

What the agencies are doing

MDH is developing a framework to inform public water systems about detections of unregulated contaminants in drinking water sources. A guidance document will accompany this framework. MDH is also compiling profiles for public water systems using surface waters. The

goal of this effort will be to identify the top potential threats to systems based on their settings, available treatment capacity, and system resources.

These activities relate to other ongoing coordination efforts. MPCA and MDH are working together to develop a list of pollutants of concern for surface waters used as sources of drinking water. MPCA may use this list in future Class 1 rulemaking, in reviewing permitting, or in developing monitoring plans. The agencies will also explore which waters MPCA should designate as Class 1 waters in future rulemaking, focusing on waterbodies inside source water protection areas and surface waters that are directly influencing groundwater.

Through these activities, the agencies will create a strategy that can be used to manage stakeholder interests, leverage available scientific information, and target future monitoring and resource requests.

Explore which waters MPCA should designate as Class 1 waters in future rulemaking

Background

MPCA is continually working to revise, develop, or otherwise improve Minnesota's water quality standards. MPCA is planning to update the Class 1 water quality standards. Class 1 standards apply to groundwater and to some surface waters. The MPCA will consider whether additional surface waters should be considered as Class 1 waters, particularly if they directly impact groundwater or impact surface water that is used by a public water system.

What the agencies are doing

The agencies will also explore which waters MPCA should designate as Class 1 waters in future rulemaking, focusing on waterbodies inside source water protection areas and surface waters that are directly influencing groundwater.

The agencies are establishing a workgroup of staff from both agencies to work on this issue. The technical agreement reached by the workgroup will inform changes to Class 1 surface waters in future rulemaking.

Agency coordination in watershed planning

The State of Minnesota adopted a watershed approach to address the state's 81 major watersheds. This watershed approach incorporates water quality assessment, watershed analysis, civic engagement, planning, implementation, and measurement of results into a 10-year cycle that addresses both watershed restoration and protection.

MPCA coordinates the Watershed Restoration and Protection Strategies (WRAPS) program. MDH coordinates the Groundwater Restoration and Protection Strategies (GRAPS) program. Many state agencies work together to gather data and create WRAPS and GRAPS reports for each watershed in Minnesota. WRAPS inform how to restore and protect surface water, and GRAPS inform how to restore and protect groundwater in the same geographical area.

MPCA and MDH are coordinating to:

- Include drinking water considerations and priorities in state-led Watershed Restoration and Protection Strategies (WRAPS); and
- Enhance the role of MPCA in Groundwater Restoration and Protection Strategies (GRAPS).

Include drinking water considerations and priorities in state-led Watershed Restoration and Protection Strategies (WRAPS)

Background

MPCA works with partner organizations to characterize water quality in each of the major watersheds in the state. Following data collection and analysis, they develop WRAPS reports. WRAPS reports contain information about water quality, monitoring, and strategies for implementation. MDH traditionally comments on WRAPS reports after they have been completed, and the reports are oriented more towards aquatic life and aquatic recreation than drinking water protection.

What the agencies are doing

MDH and MPCA are coordinating on watersheds with upcoming assessments to ensure that drinking water protection is better integrated throughout planning and reporting.

The agencies are establishing lines of communication across programs. For instance, MPCA staff are notifying MDH staff when assessing watersheds upstream of surface waters used for drinking water. Ongoing communication through these channels can connect agency staff in surface water-drinking water, water quality assessment, project management, emergency response, and permitting.

MDH is also providing a guidance on drinking water protection that can be used at the MPCA Prioritization and Protection Workshop for local partners. This guidance will be used in local planning for WRAPS and One Watershed, One Plan (1W1P).

Enhance the role of MPCA in Groundwater Restoration and Protection Strategies (GRAPS)

MDH leads the Groundwater Restoration and Protection Strategies (GRAPS) program, which is similar to WRAPS but focused on groundwater resources in the watershed. As a part of this overall effort, MPCA and MDH are coordinating to ensure that WRAPS and GRAPS reports for each watershed are complementary in their strategies and approaches.

Appendix

More information about existing agency activities

Class 1 waters

Water quality standards:

- Protect water resources for uses such as fishing, swimming and other recreation, and sustaining fish, bugs, plants, and other aquatic life
- Are a measure to identify polluted waters or healthy waters in need of protection
- Guide the limits set on what regulated facilities can discharge to surface water

The federal Clean Water Act requires states to designate beneficial uses for all waters and develop water quality standards to protect each use. Water quality standards consist of several parts:

- Beneficial uses — Identify how people, aquatic communities, and wildlife use our waters
- Numeric standards — Amounts of specific pollutants allowed in a body of water and still protects it for the beneficial uses
- Narrative standards — Statements of unacceptable conditions in and on the water
- Antidegradation protections — Extra protection for high-quality or unique waters and existing uses

Together, the beneficial uses, numeric and narrative standards, and antidegradation protections provide the framework for achieving Clean Water Act goals. The Clean Water Act specifies healthy aquatic life and recreation as beneficial uses. Others that are protected in Minnesota's rules are:

- Drinking water (Class 1)
- Industrial and agricultural uses
- Wildlife
- Navigation
- Aesthetic enjoyment

From [Water Quality Standards \(https://www.pca.state.mn.us/water/water-quality-standards\)](https://www.pca.state.mn.us/water/water-quality-standards)

Revising water quality standards

The MPCA is continually working to revise, develop, or otherwise improve Minnesota's water quality standards. The process for developing and codifying water quality standards can take months and often takes years. The agency must establish the technical basis and create

supporting documents for the standard, ensure peer review, and give the public the opportunity to comment on their proposal. The U.S. Environmental Protection Agency has final authority to approve or disapprove any new or revised standards.

From [Water Quality Standards \(https://www.pca.state.mn.us/water/water-quality-standards\)](https://www.pca.state.mn.us/water/water-quality-standards)

Source water protection areas

Hydrologists at MDH evaluate where drinking water comes from and how vulnerable the drinking water source is to outside contamination. This information is used to define a Drinking Water Supply Management Area (DWSMA). The DWSMA is designated to protect water users from long-term health effects from low levels of contamination picked up by water as it moves over or through land.

MDH designates other management areas within the DWSMA. These include the Emergency Response Area and Spill Management Area. These areas are designated to help the city address potential contaminant sources and contaminant releases that present an immediate health concern to water users.

National Pollutant Discharge Elimination System (NPDES)

The Clean Water Act prohibits anybody from discharging "pollutants" through a "point source" into a "water of the United States" unless they have an NPDES permit. The permit will contain limits on what you can discharge, monitoring and reporting requirements, and other provisions to ensure that the discharge does not hurt water quality or people's health. In essence, the permit translates general requirements of the Clean Water Act into specific provisions tailored to the operations of each person discharging pollutants.

From [NPDES Permit Basics \(https://www.epa.gov/npdes/npdes-permit-basics\)](https://www.epa.gov/npdes/npdes-permit-basics)

Watershed Restoration and Protection Plans (WRAPS)

The MPCA employs a watershed approach to restoring and protecting Minnesota's rivers, lakes, and wetlands. Money to accelerate efforts to monitor, assess, and restore impaired waters, and to protect unimpaired waters was funded by the Minnesota's Clean Water Legacy Act.

There are 80 major watersheds in Minnesota. Intensive water quality monitoring and assessments will be conducted in each of these watersheds every ten years.

During the ten-year cycle, the MPCA and its partner organizations work on each of the state's 80 major 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 ten-year cycle is completed, a new cycle begins.

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:

1. Monitor water bodies and collect data

2. Assess the data
3. Develop strategies to restore and protect the watershed's water bodies
4. Conduct restoration and protection projects in the watershed

From [Watershed Approach to Restoring and Protecting Water Quality \(https://www.pca.state.mn.us/water/watershed-approach-restoring-and-protecting-water-quality\)](https://www.pca.state.mn.us/water/watershed-approach-restoring-and-protecting-water-quality)

Groundwater Restoration and Protection Plans (GRAPS)

Minnesota Department of Health coordinates the Groundwater Restoration and Protection Strategies (GRAPS) program. Many state agencies work together to gather data and create GRAPS reports for each watershed in Minnesota.

GRAPS reports contain maps and data describing groundwater conditions in the watershed. The reports identify local groundwater concerns and outline strategies and programs to address them. Local organizations can use GRAPS reports to develop their water management plans.

GRAPS reports are meant to be used with Watershed Restoration and Protection Strategies (WRAPS) reports in the development of local watershed management plans. WRAPS inform how to restore and protect surface water, and GRAPS inform how to restore and protect groundwater in the same geographical area.

WRAPS focus on restoration and begin with intensive monitoring to evaluate surface water quality. WRAPS identify the necessary actions and time frame to restore surface water quality. However, if there is groundwater overuse or contamination in the watershed, the strategies identified can also help restore groundwater.

Local organizations can also use GRAPS reports in their One Watershed, One Plan (1W1P) development. The 1W1P program will provide local governments with a single management plan for groundwater and surface water. A number of Minnesota state agency programs will feed into the 1W1P program, including GRAPS.

From [Groundwater Restoration and Protection Strategies \(https://www.health.state.mn.us/communities/environment/water/cwf/localimplem.html\)](https://www.health.state.mn.us/communities/environment/water/cwf/localimplem.html)

Minnesota Department of Health
PO Box 64975
St. Paul, MN 55164-0975
651-201-4700
health.drinkingwater@state.mn.us
www.health.state.mn.us

Minnesota Pollution Control Agency
520 Lafayette Road N
St. Paul, MN 55155-4194

CWA/SDWA INTERAGENCY COORDINATION

651-296-6300
info.pca@state.mn.us
www.pca.state.mn.us

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