



Using WRAPS Reports in Local Water Planning

This document provides a general overview of connections between a Watershed Restoration and Protection Strategies (WRAPS) report and a water plan, and outlines how local governments can incorporate the elements of a WRAPS report into their local water planning process. It is important to connect local water management programs and activities and WRAPS reports because each informs the other. Water plan in this document refers to County Water Plans, Watershed District Plans, Watershed Management Organization Plans, and Comprehensive Watershed Management Plans (One Watershed, One Plan).

Reports Available Through the MPCA & the WRAPS Process

Watershed Restoration and Protection Strategies Report (WRAPS)

This report summarizes the reports listed below, and uses that information to determine what actions are needed to improve or maintain water quality. The report includes current and past assessments of water quality, diagnostic studies and TMDL work, water quality (and in some cases drinking water) goals, and outlines ways to prioritize waters and focus implementation actions and strategies to enhance measurable outcomes. The WRAPS also provides:

- Water quality goals/targets for each assessed water
- Identification of critical source areas based on pollutant loading and/or hydrologic parameters (peak flows and volumes);
- An overview of civic engagement efforts that were conducted and that may be useful for future planning and implementation efforts
- Recommended strategies and timelines needed to fully meet restoration goals, protection targets, and groundwater and/or drinking water goals where appropriate

How to use the WRAPS report in water planning: The information in the WRAPS report can be valuable to understanding the broader watershed-wide water quality and water resource issues by providing information such as the relative magnitude and type of contributing pollutant sources and the relationships between water management practices and water quality conditions. The protection-related information in WRAPS is designed to help prioritize, target, and deliver measurable improvements in protection outcomes. The WRAPS may also incorporate statewide water quality plans, such as the Nutrient Reduction Strategy and sediment strategy reports where available; potentially streamlining the development of local water plan priorities. WRAPS strategies to restore impaired waters should be incorporated into a water plan. If WRAPS strategies are not identified as local priorities, the plan should include a description of why not.

Monitoring and Assessment Report

Identifies the results and status of sampled waters within the watershed over the most recent 10-year period and collects baseline information on a watershed's physical characteristics. The report provides valuable information on the specific resources monitored and assessed as well as any long-term trends within the watershed. Key information found in the report includes:

- Locations of permitted groundwater and surface water withdrawals and summaries of groundwater quality and quantity in the watershed
- Biological condition (fish, macroinvertebrates, and/or aquatic plants) for streams, rivers, and lakes;
- Habitat information documented during each fish sampling visit
- Stream channel stability information
- Watershed hydrology information
- Pollutant loading data at the major watershed outlet (and in some cases for some minor watersheds)
- Water chemistry results representing the outlet of the minor watersheds;
- A summary of lake water quality results
- A summary of drinking water protection needs where appropriate.

How to use the Monitoring and Assessment Report in water planning: This report characterizes the water quality conditions in the watershed. Data collected in support of the report (such as the physical characteristics) can be valuable for land and water resources inventory and subsequent prioritization of resources in a plan. Additionally, understanding the monitoring section of the report can assist with development of ongoing monitoring actions within the water plan.

Stressor Identification Report

Summarizes the key causes or “biotic stressors” contributing to impaired fish, aquatic macroinvertebrate, and aquatic plant communities and includes a comprehensive review of existing biological, chemical, and physical data to assess the stressors on stream and lake health (examples: low oxygen, excess sedimentation, temperature, poor water clarity, interrupted connectivity, and lack of habitat).

How to use the Stressor Identification Report in water planning: Stressors identified in the report should be identified as concerns or issues within the water plan. If these biotic stressors are not identified as priorities, the plan should describe why not. Management actions in the implementation sections of water plans should address the stressors to the extent possible.

TMDL Report

After impaired waters are listed, the MPCA addresses each of the impairments with a Total Maximum Daily Load (TMDL). The TMDL process identifies all sources of the pollutant and determines how much each source must reduce its contribution in order to meet the standard. Implementation recommendations are provided in the TMDL report and/or incorporated directly into the WRAPS report. Each TMDL project may contain one or more waterbodies or segments of a waterbody. A TMDL is the maximum amount of a pollutant a water body can receive without violating water quality standards, and an allocation of that amount to the pollutant’s sources. TMDLs may directly impact municipal stormwater (MS4), wastewater facilities, and permitted/regulated businesses with required pollutant load reductions.

How to use the TMDL in water planning: The source reduction strategies form the basis of the TMDL implementation plan which is further refined during the water planning process. The TMDL sets pollution reduction goals (examples: nitrogen, phosphorus, sediment), to be achieved through implementation of the water plan. The TMDL will also provide insight into capital projects and other practices that may be implemented within a watershed to address impairments. The TMDL report identifies the sources of the impairment while the associated TMDL modeling information provides further details about the water quality impairment that are useful for estimating future restoration costs and for funding applications.

Connecting WRAPS to the Water Planning Process

In the water planning process, data and information are used in the context of local values and needs to set priorities. The following table provides a general overview of the water plan development process and how a WRAPS report connects with those steps. Note that not all the steps are part of every planning process, not every WRAPS is complete, and that local water plans will address many items beyond those in the WRAPS. The connections outlined above may apply to other state plans, e.g. Groundwater Restoration and Protection Strategies report (GRAPS), the Nonpoint Priority Funding Plan.

	Planning Process Step	WRAPS Connection
Planning Start-up	Initial meetings of local government planning staff to discuss planning process	In the meeting, local staff are encouraged to include a discussion of the current status of the WRAPS
	Advisory committee or water plan task force meeting(s) shortly prior to plan initiation	MPCA staff may be asked to provide a WRAPS overview to the Advisory Committee (timing may be more appropriate after plan initiation).
	Governing Board passes a resolution to update the water plan	Local staff may want to consider including a commitment to the WRAPS in the resolution to update the plan.
	Local government requests initial input on the plan or Priority Concerns Scoping Document (PCSD) for County Water Planning	All agencies – be sure to reference WRAPS report and include critical items in the response letter (not all items in the WRAPS can be addressed in a 10-year water plan; specificity about agency priorities early on will help in the planning and approval processes)
County Water Planning PCSD	Local government develops the PCSD	Local staff encouraged to discuss approach for incorporating WRAPS into the PCSD with MPCA project manager, the WRAPS technical core team, or other experts the project manager references.
	Local government response to comments on the PCSD	Review response to comments to ensure any comments regarding WRAPS are addressed.
	Recommendation to BWSR Region Planning Committee (PCSD)	BWSR staff will specifically note if/how PCSD addresses critical issues identified in WRAPS in memo and presentation to board committee.
Plan Development	Local government hosts a plan kickoff meeting and ongoing Advisory Committee or task force meetings	Local staff should be communicating with MPCA staff about providing a WRAPS overview at the kick off meeting and/or to the advisory committee. All agencies should be discussing the WRAPS as appropriate at advisory committee meetings.
	Local government drafts the water plan. Drafts of the plan or plan sections may be provided along the way for feedback.	Go back to response letter submitted during plan start-up and make sure items in letter are addressed in the water plan. Agency staff will coordinate with local and BWSR staff if items are not addressed.
	Public hearing held on the water plan	No specific connection to the WRAPS Report.
Final Plan	Final water plan is submitted to BWSR.	BWSR reviews the plan against statute, rule, and policy requirements and agency letters received. BWSR ensures that critical issues identified in the WRAPS report have been incorporated into the water plan. BWSR will communicate

		with agencies about final review and coordinate if discrepancies are found in the plan.
	Presentation of the final plan to the BWSR Regional Planning Committee of the Board.	In presenting to this committee, LGUs are encouraged to specifically note how the water plan addresses critical issues identified in the WRAPS report. If the WRAPS is not sufficiently addressed in the plan, the committee may not recommend approval to the full BWSR Board.
	Final approval of the water plan by the BWSR Board	No specific connection to the WRAPS Report.

Information Used in WRAPS That Could Inform Local Water Planning

As part of WRAPS development, a **Hydrological Simulation Program—Fortran** (HSPF) model is built for each major watershed. Following construction of the model, a Scenario Application Manager (SAM) utility may be developed. This utility allows a water planner to evaluate the water quality effects of a range of scenarios (e.g., increase in perennial cover; conversion of forest to agriculture). The application does not require modeling expertise; however, knowledge of the assumptions associated with and appropriate uses for an HSPF model is recommended. A few WRAPS have used a Soil and Water Assessment Tool (SWAT) model instead of HSPF.

In addition, many WRAPS have used information on **fluvial geomorphology** (stream stability), **hydrology** (stream flow), and **connectivity** (dams and road crossings), as well as the Watershed Health Assessment Framework, which provides major watershed and catchment–scale scores for a variety of watershed health metrics.

Other data, analysis, and models not listed here may have been used in the WRAPS process and could be useful in developing a water plan. Agency staff can help local water planners determine what data is available and what analysis and models have been developed for a given watershed.

Should or Must?

Requirements for Using WRAPS and other information in Local Water Plans

Local water planning is a process of prioritizing water bodies and issues and selecting locally relevant strategies to work toward water resource goals. This process is informed by data, information, and goals from a variety of sources, including WRAPS, state-level plans and strategies, and citizen input. Strategies in local plans should be connected back to these sources, and ideally, they should provide multiple benefits to address a variety of issues identified in the planning process. Because WRAPS and some other sources are comprehensive, it's not expected that everything in a WRAPS or other source be reflected in a local water plan. The following clarifies the requirements for using this information in different plan types:

MUST: Using WRAPS is a key purpose of One Watershed, One Plan [see Minnesota Statutes §103B.801, Subd. 2(3)] and incorporating data and information from WRAPS and other sources, including state-generated reports, plans and strategies is required (see One Watershed, One Plan - Plan Content Requirements).

SHOULD: While this requirement is not presently outlined in statute for County Water Plans, Watershed District Plans, and Watershed Management Organization Plans, WRAPS can add value to all local water plans. All plans should connect information in WRAPS and other sources to the strategies and actions listed for locally identified priority resources.