



SURFACE WATER PLANNING GUIDE

Purpose of this document

This document provides guidance on how to complete the Metropolitan Council's (Met Council) minimum requirements for Local Water Management Plan's (LWMP) in your local comprehensive plan update.

It includes:

- References for useful templates
- Guidance for content development and review
- References for organizations with helpful resources
- Local examples of goals, policies, and strategies

Before you begin (quick start guide)

Step 1: Get familiar with templates and instructions

Water chapter template

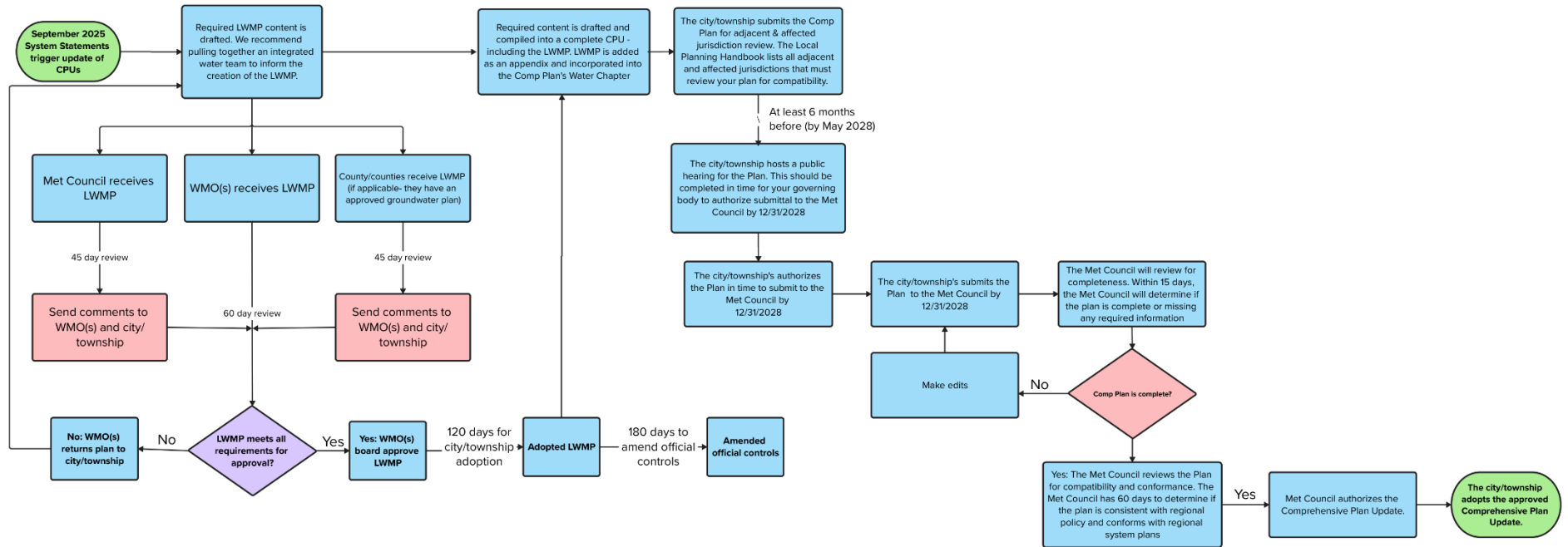
Start with the Met Council's [water chapter template](#) in the [Local Planning Handbook](#). A Water Chapter will help communities include all required water-related content—covering water supply, surface water, and wastewater—in a consistent and organized way. Using a single water chapter brings all water topics together, to allow the Met Council to review plans efficiently and support integrated water planning.

You can adapt the Water Chapter template to fit your community's needs. LWMP minimum requirements fit into these sections of the Water Chapter template: Water and our community, Surface Water, Summary of implementation actions, and applicable appendices.

Step 2: Understand the planning schedule and expectations

Please refer to Figure 1 below for how the LWMP fits into the Comprehensive Plan process.

FIGURE 1: LOCAL WATER MANAGEMENT PLANS AND THE COMPREHENSIVE PLAN PROCESS



Step 3: Create a land and water planning team

A land and water planning team can share data, review plans, and guide the update process. This team will also be useful while writing and following the Water Chapter template. Ideas for who to invite to join include:

- Planning & zoning staff
- Housing/community development staff
- Transportation/engineering staff
- Parks & recreation staff
- Environmental/natural resources staff
- Water (supply, stormwater, wastewater) staff
- Finance staff
- Emergency management staff
- County planning staff
- Soil & water conservation districts staff
- Watershed organizations
- State agencies (DNR, MPCA, MDH)

Use the bullets in Figure 2 to help spark ideas, identify key water issues, or highlight areas needing more data. These questions can also support public workshops to explore community knowledge and values around water.

Figure 2: Considerations for a Land and Water Planning Team

Water Management	Future Projections	Water - Land Use
• Condition of surface water resources • Groundwater-surface water interaction • Stormwater mangement infrastructure • Known flood risk areas	• Climate scenarios (precipitation and temperature) • Contaminants of emerging concern • Infrastructure condition assesment	• Future population, growth, land use/zoning • Known flood risk areas • Water accessibility, community benefit • Water efficient, sustainable landscapes

Step 4: Check out some resources about surface water context in your area

It may be useful to have the following resources at hand and review their surface water content before you begin:

- Your 2040 comprehensive plan, focusing on surface water related content,
- Your current local water management plan,
- Draft land use plan for 2050 comprehensive plan,
- Map and info related to key natural communities and systems within your community (NRCS lands, etc.),
- Watershed Management Organization (WMO) Plans for the watersheds that your municipality is contained within,
- The [Water Supply Planning Atlas](#) provides water supply information for the region and your subregion
- Municipal Separate Storm Sewer System (MS4) permits
- Stormwater Pollution Prevention Plans (SWPPPs)
- Watershed Restoration and Protection Strategies (WRAPS)/ Total Maximum Daily Loads (TMDLs)
- Local chloride management plan
- [Priority Waters List](#)
- [Water impairments](#)
- H&H model, if using watershed reach out to them for assistance
- [Metropolitan Council Blue Spot Tool](#) to ID potential localized flooding areas.

Guidance for completing minimum requirements

These minimum requirements are both found in Minnesota Rules Chapter 8410 Part 8410.061 and in Minnesota Statute 103B.235. They were agreed upon in partnership with the Board of Water and Soil Resources and Met Council.

Watershed management organizations must specify the degree of detail that must be provided in the local water management plan in their watershed management plan. There may be additional requirements based upon the watershed management organization(s) that your community is a part of. Please check with your watershed management organization(s) to confirm.

Requirement 1

- **An executive summary that summarizes the highlights of the local water plan.**

To determine if your comprehensive plan meets this requirement, the Met Council will look at the beginning of your LWMP for the executive summary. The executive summary summarizes the goals, key points, and sections of the LWMP. It should restate the purpose of the LWMP and concisely describe recommendations from the plan.

Requirement 2

- **A summary of the appropriate water resource management-related agreements that have been entered into by the local community.**

To determine if your comprehensive plan meets this requirement, the Met Council will look for dedicated space clearly highlighting and identifying water resources management agreements. Water resources management agreements include joint powers agreements related to water management that the local government unit may be party to between itself and watershed management organizations, adjoining communities, or private parties. These could include TMDL/WRAPS/One Watershed, One Plan (1W1P) agreements, inter-city agreements, MS4s, etc. For example, agreements could be shown listed in bullets or in table form. The agreements themselves should be made available for review in either the appendix of the plan or linked.

Example 1: Figure 3 is a screenshot from Edina’s 2022 amended LWMP. It is an example of the bulleted format, and the plans are linked to their online location.

Figure 3: Example of how to structure Requirement 2

4.7 Water Resources Management Agreements

Water resource management-related agreements that the City has entered with other organizations can be found online through the “Edina Docs” Water Resources Library: <http://edinadocs.edinamn.gov/>

- City of Bloomington: for the area of the Border Basin
- City of Eden Prairie: for the area along Washington Avenue
- City of Richfield: for the outlet from Adam’s Hill Pond
- City of Hopkins: for the area east of Blake Road and along TH 169
- City of St Louis Park: for Meadowbrook Golf Course and Morningside area
- Minnehaha Creek Watershed District: for Arden Park, Pamela Park Water Quality Improvements, and the 2014 Memorandum of Understanding outlining spheres of collaboration
- Nine Mile Creek Watershed District: for the Edina Streambank Stabilization project, Pentagon Park assessment and planning (in cooperation with the City of Bloomington), Rosland Park Clean Water Project, and Lynmar Basin Stormwater Retrofit Project.

Example 2: Table 1 is an example of agreements in table format. Additionally, state where the agreements can be found in the Appendix or a link can be added for plan readers to view the agreements.

Agreement	Partners	Waters Impacted	Page #
St. Croix TMDL	Watersheds in St. Croix	St. Croix River	App. A; 2-26
City Stormwater	Neighboring City	Stormwater Runoff	App A; 27-28

TABLE 1: WATER RESOURCE MANAGEMENT AGREEMENTS IN TABLE FORMAT

Requirement 3

- **Land Use**

For this requirement the plan must meet four sub-requirements.

- 1. A description of the existing and proposed physical environment and land use.**

We recommend working with your municipality's city planners and/or consultants to identify future land use for the 2050 Comprehensive Plan update to inform this section.

- 2. Drainage areas**

A narrative should be provided identifying major drainage areas and their drainage patterns. The narrative should include what model was used and the year it was created/updated to identify the drainage areas and maps identifying each. If a full study was conducted it can be attached via the appendix.

Data may be incorporated by reference for other required elements of this section as allowed by the municipality's WMO(s). If referencing, include chapter and section from the WMO plan(s). The community should be aware that not all WMO plans will contain the level of detail needed for the community and, in those instances, the community will need to provide additional information.

- 3. Volumes, rates, and paths of stormwater runoff**

Runoff rates are recommended for a 24-hour precipitation event with a return frequency of 1, 2, or 5 years. Municipalities can reference their watershed's H&H model if they do not have their own. Data may be incorporated by reference for other required elements of this section as allowed by the WMO(s). community should be aware that not all WMO plans will contain the level of detail needed for the community and, in those instances, the community will need to provide additional information.

Climate change is impacting storm and weather systems and is increasing flood risks for certain communities. The most current precipitation rates should be used, such as Atlas 14, or the most recent federal design standards. *We recommend that communities with known flooding issues require rate control for storms with other return frequencies, such as 10, 25, or 100-year events.*

- 4. An assessment of existing or potential water resource-related problems.**

At a minimum, the plan should include: A prioritized assessment of the problems related to water quality and quantity in the community.

The LWMP must reference the Watershed Management Plan(s) of all watershed organizations that contain the municipality and highlight local connections (programs, locations, etc.) to the watershed-level identified problems.

The Met Council recommends the municipality complete a city-specific problem identification process as shown in Table 2. Below is a guide on how to meet the recommended level of this requirement.

- *Identify high priorities for the issues identified in §103B.312. Discuss how each priority was selected.*
- *Provide a discussion and/or map(s) of the issues. Identify priority areas within the community boundaries and how/where it will be addressed in the plan.*

- *Information may be incorporated by reference from a watershed management plan(s) authorized under §103B.231, a comprehensive watershed management plan authorized under §103B.801, a watershed restoration and protection strategy authorized under §114D.26, a groundwater restoration and protection strategy, or a county groundwater plan authorized under §103B.255.*
- *To ensure consistency across the plan there should be connections with the LWMP and the natural systems and climate sections of the comprehensive plan.*

Problem	Impact	Waters Impacted	Regional, State, Federal water mgmt. priorities	Source (if relevant)	Pg #
Chlorides	Impairment	All of them	State CI TMDL; Metro CI TMDL; Watershed Plan	App. A	2-26
Flooding	Infrastructure impacts; mobility impacts	Groundwaters; localized flooding location(s)		Watershed Management Plan	83-93
Twin Lake	AIS – Curly Pond Leaf	Twin Lake	DNR AIS Priorities, Watershed Problem ID	Watershed Management Plan	107-108

TABLE 2: EXAMPLE TABLE TO MEET REQUIREMENT 3

Requirement 4

- **A local implementation program/plan that includes prioritized nonstructural, programmatic and structural solutions to priority problems identified as part of the assessment completed for number 3.3. Local official controls must be enacted within six months of the approval of the local water plan. The program/plan must:**
 - 1. Include areas and elevations for stormwater storage adequate to meet performance standards or official controls established in the watershed management organization(s) that overlap the community's boundaries.**
 - 2. Define water quality protection methods adequate to meet performance standards or official controls. At a minimum, the plan should include:**
 - Information on the types of best management practices to be used to improve stormwater quality and quantity.
 - *A five-year establishment period is recommended for native plantings and bioengineering practices.*
 - The maintenance schedule for the best management practices.
 - The maintenance schedule in plans submitted by regulated MS4 communities must be consistent with BMP inspection and maintenance requirements of the MS4 Permit.

3. Clearly define the responsibilities of the community from that of their watershed management organization(s) for carrying out the implementation components as shown in Table 3.

Authority	Responsible Party
Construction Permitting	City/Watershed
Wetland Conservation	WCD
Education (for MS4)	EMWREP
Shoreland	County
Other (Mining...)	County

TABLE 3: EXAMPLE OF REQUIREMENT 4.3

4. Describe official controls and any changes to official controls. At a minimum, the plan should include:
- An erosion and sediment control ordinance consistent with National Pollution Discharge Elimination System (NPDES) Construction Stormwater permit requirements and other applicable state requirements
 - Identify ways to control runoff rates so that land-altering activities do not increase peak stormwater flow from the site for a 24-hour precipitation event with a return frequency of 1 or 2 years. Communities with known flooding issues may want to require rate control for storms with other return frequencies (10-year, 25-year or 100-year)
5. Include an implementation program table that briefly describes each planned programmatic work of the implementation program and clearly details the schedule, estimated cost, and funding sources for each component including annual budget totals as shown in Table 4.

Implementation Item	Schedule	Cost	Funding Source
O/M			
Programmatic			
Non-Structural			
Structural			
Education			

TABLE 4: EXAMPLE IMPLEMENTATION PROGRAM TABLE

6. Include a capital improvement program table, which highlights all planned projects set forth by year, details of project that includes the schedule, estimated cost, and funding source as shown in Table 5.

Capital Improvement	Schedule	Location	Cost	Funding Sources

TABLE 5: EXAMPLE CAPITAL IMPROVEMENT PROGRAM TABLE

Requirement 5

- **A section titled “Amendments to Plan” that establishes the process by which amendments may be made. The amendment procedure shall conform with the plan amendment procedures described in the watershed management organization plans that affect the community.**

Definitions and Acronyms

Definitions

- **Atlas 14** – A tool created by the National Oceanic Atmospheric Administration that provides precipitation frequency information.
- **Comprehensive Plan** - A comprehensive plan represents a community’s vision of how it wants to grow and change — how it will develop its land, redevelop older areas, ensure adequate housing, provide roads and sewers, protect natural areas, and meet other community objectives.
- **H&H model** – Stands for hydrologic and hydraulic modeling and is an engineering, mathematical simulation used to predict how water moves through a watershed, including an urban drainage infrastructure.
- **Local Water Management Plan** – Local municipalities in the seven-county metro region are required by state statute to write and implement to protect water resources. It outlines priorities for managing water quality, quantity, and land use, serving as a framework for local action, compliance, and securing funding.
- **Priority Waters List** – The Met Council created the Priority Waters List. The list is of waterbodies that have been determined to be regionally significant based on the benefits these waterbodies provide. Identifying these waterbodies is important, so that their benefits can be protected and fostered as the region continues to develop and change.
- **Water Chapter** – The Water Chapter is a recommended component of required Comprehensive Plans. It promotes integrated water management planning across surface water, water supply, and wastewater to reach multi-benefit solutions

Acronyms

- **BMP** – Best management practice
- **CPU** – Comprehensive Plan update
- **LWMP** – Local Water Management Plan
- **MS4** - Municipal Separate Storm Sewer System
- **NRCS** – Natural resource conservation service
- **SWPPPs** - Stormwater Pollution Prevention Plans
- **WMO** – Watershed management organization