



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting

Wednesday, March 20, 2024

Agenda Item

Item 7. F. - MPCA Lower Minnesota River Watershed Surface Water Monitoring Request Guidance

Prepared By

Linda Loomis, Administrator

Summary

This item was tabled at the February 21, 2024, meeting of the Board of Managers of the Lower Minnesota River Watershed District.

Since the February meeting, Young Environmental Consulting Group, LLC, on behalf of the LMRWD, reviewed the list of proposed monitoring sites and prepared Technical Memorandum – LMRWD Monitoring Recommendation for the Surface Water Monitoring Request from the Minnesota Pollution Agency – dated March 14, 2024. Three additional sites are suggested for monitoring – Ike’s Creek, Unnamed Creek #1 and Spring Creek.

Requests for additional monitoring sites are due to the Minnesota Pollution Control Agency (MPCA) April 1, 2024.

Grants to conduct monitoring will be available to conduct the monitoring. A timeline from the MPCA for Monitoring Planning is attached.

Attachments

Technical Memorandum – Minnesota Pollution Control Agency Meeting and Lower Minnesota Watershed Surface Water Monitoring Requests dated February 14, 2024

Recommended Action

Motion to submit recommended creeks (Ike’s Creek, Unnamed Creek #1, and Spring Creek) to the MPCA for monitoring.

Timeline for 2025 Watershed Monitoring Planning

Date	Action
November 2023	Meeting with Local Partners to kick off site selection process
Jan/Feb 2024	Meeting with Local partners to introduce and develop monitoring needs (Surface Water Monitoring Request (SWMR) meeting)
April 1, 2024	Monitoring Site Requests are due to the MPCA monitoring staff
Spring/Summer 2024	MPCA review proposals, budgeting, etc. SWMR Approval list sent to local partners in late summer
Mid October 2024	Meeting with Local Partners to discuss SWMR approved sites and start the SWAG contracting process
October/November 2024	SWAG work plan and budget development by Local Partners
Dec/Jan/Feb 2025	SWAG Monitoring Contract developed/finalized by MPCA
March 2025	SWAG contract executed ; prep for field season begins
May – September 2025	Field Season 1
May – September 2026	Field Season 2
January 2027	Contract ends; water quality assessments begin

Technical Memorandum



To: Linda Loomis, Administrator
Lower Minnesota River Watershed District

From: Jess Norby, Senior Water Resources Scientist
Della Schall Young, CPESC, PMP, CTF, Principal Scientist

Date: March 14, 2024

Re: LMRWD Monitoring Recommendations for the Surface Water Monitoring Request from the Minnesota Pollution Control Agency (MPCA)

BACKGROUND

The MPCA takes a watershed approach to statewide monitoring with the primary goal of evaluating the condition of surface water to inform management decisions. The MPCA uses the information provided by this Intensive Watershed Monitoring (IWM) program to track water quality status and trends, identify stressors associated with impairments, determine effectiveness of monitoring, inform on watershed restoration and protection strategies, and address permitting needs. The watershed approach evaluates all of Minnesota's 80 major watersheds over a 10-year cycle. Cycle 1 of Intensive Watershed Monitoring was completed for the Lower Minnesota River in 2013. The full Cycle 1 report (published in 2017) is available on the MPCA website.

The MPCA and its partners are in the second cycle of a watershed-based management approach for the Lower Minnesota River. Each cycle year begins with the selection of lake and stream water quality and biological monitoring stations. The MPCA is developing a list of Cycle 2 state and local IWM stations within watersheds scheduled for monitoring in 2025. The Surface Water Monitoring Request (SWMR) process provides an opportunity to submit requests that align with this management approach while documenting and addressing local priorities. The submission of a request does not guarantee the approval of funding for monitoring. The MPCA is compiling all requests and selecting those that fall under the condition monitoring objectives of the IWM approach for the 2025-2026 monitoring seasons. The Watershed Project Charter will document all requests (approved or deferred). The watershed project manager will prioritize and compile all requests in alignment with each watershed's charter. This compiled information may also help set priorities for monitoring opportunities funded outside the IWM approach.

RECOMMENDATIONS

Young Environmental has identified three creeks, listed below, that we would like to

submit to the MPCA on behalf of the LMRWD for the SWMR:

(1) Ike's Creek

Ike's Creek has been monitored on LMRWD contracts in the past, but it lacks monitoring data for sediment and nutrient concentrations, which are two major indicators of water quality. Although Ike's Creek has not been officially designated as a trout stream, it has received priority from the Geomorphic and Habitat Assessments of Trout Streams in the Lower Minnesota River Watershed District (2019) study and will continue to be studied in the 2024 follow-up trout stream project. We believe it would be beneficial to receive water quality and bioassessment monitoring from the MPCA in 2025 to aid in planning for projects that might take place in Ike's Creek.

(2) Unnamed Creek 1

An inlet to Black Dog Lake, Unnamed Creek 1, has been a subject of the Geomorphic and Habitat Assessments of Trout Streams in the Lower Minnesota River Watershed District (2019) and the 2024 follow-up trout stream project. Concerns arose in 2019 about the stability of the creek, and we believe monitoring data collected in 2025 would aid in any planning efforts for the creek.

(3) Spring Creek (Carver)

Spring Creek is impaired for fecal coliform and has been on rotation for intensive monitoring of E. coli by the Carver County Water Management Organization (CCWMO), but it hasn't received sediment or nutrient concentration sampling since 2009. Landowners along Spring Creek and on top of the bluffs that feed the creek have been vocal in noticing erosion near or on their properties. The Spring Creek Sites 1 and 2 Design and Construction Stabilization Project will be commencing construction next winter (2024/2025) to address the erosion issues. We are recommending that Spring Creek be added to the CCWMO monitoring contract for the 2024 season to capture water quality information before the project breaks ground. We also recommend that it be included in the SWMR for data collection in the 2025 season for post-construction data collection to help inform project success.

MPCA existing or proposed sites for 2025 IWM monitoring	Monitoring activity
1. Sand Creek near US169	Water quality, bioassessments
2. Bevens Creek	Water quality, bioassessments
3. Carver Creek	Water quality, bioassessments
4. Chaska Creek-West	Bioassessments
5. Chaska Creek-East	Bioassessments
6. Riley Creek	Bioassessments
7. Purgatory Creek	Water quality, bioassessments
8. Prior Lake outlet near MN River	Water quality, bioassessments
9. Prior Lake outlet near Eagle Creek Blvd.	Bioassessments
10. Eagle Creek	Bioassessments
11. Credit River	Water quality, bioassessments
12. Nine Mile Creek	Water quality, bioassessments
6 sites along Minnesota River from Jordan to Mendota Heights	Bioassessments
Lake Water Chemistry	
Lake Riley (Chanhassen)	
Fish Lake (Eagan)	

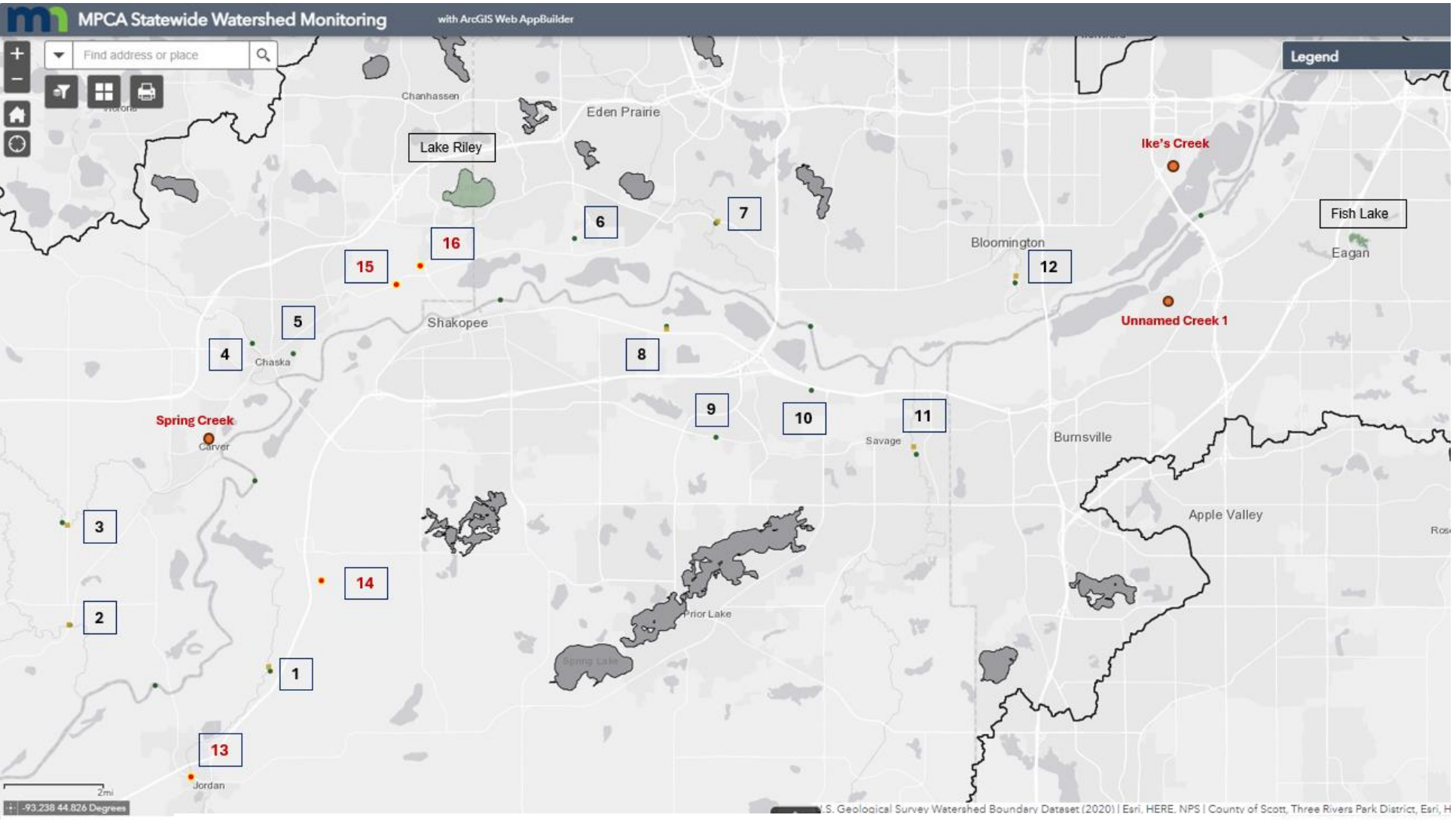
Proposed sites for 2025 (entity requesting)	Monitoring activity	Reasoning
13. Sand Creek in Jordan (MCES)	E. coli, aquatic life bioassessments (fish and macros), nutrients, DO, temp, production of wild rice, sulfate	Previous pollutant loads have been calculated for this site
14. Picha Creek (MPCA)	Fish bioassessments, macro bioassessments	Ravine stabilization restoration work will happen just upstream of 14MN200
15. Assumption Creek (MCES)	Aquatic life bioassessments (fish and macros), ¹ aquatic life assessment, ² river eutrophication, ³ dissolved oxygen, ⁴ temperature	High-value resource and designated trout stream
16. Bluff Creek (MPCA)	Fish bioassessments, macro bioassessments	Dam removal on creek by City of Chanhassen
LMRWD suggested requests		
Ike's Creek	Aquatic life bioassessments (fish and macros), aquatic life: assessment suite	Lack of monitoring data, ongoing trout stream project, possibility for future projects
Unnamed Creek 1	Aquatic life bioassessments (fish and macros), aquatic life: assessment suite	Lack of monitoring data, ongoing trout stream project, possibility for future projects
Spring Creek (Carver)	Aquatic life bioassessments (fish and macros), aquatic life: assessment suite	Restoration project on bluff this winter. Suggested that LMRWD add site to CCWMO monitoring route in 2024 for pre-project data

¹Aquatic Life: Assessment level stream chemistry suite (10 times over May – September, 1 year; Total Suspended Solids, Total Phosphorus, Field parameters: Dissolved oxygen, Temperature, Conductivity, pH, Secchi tube transparency).

²Aquatic Life: River Eutrophication monitoring add-in to assessment level chemistry suite (total phosphorus and chlorophyll-a).

³Aquatic Life: Dissolved oxygen monitoring (deployment of dissolved oxygen meter for 2-week period between July and early September OR early morning [pre-9 a.m.] dissolved oxygen monitoring).

⁴Aquatic Life: Temperature logger deployment.



Map 1. Screenshot and site clarifications (refer to Table 1) of the Statewide Watershed Monitoring Map of points that are included or proposed in the 2025 Intensive Watershed Monitoring of Lower Minnesota River