



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting
Wednesday, April 17, 2024

Agenda Item

Item 4. B. – LMRWD Work Plan Quarterly Report

Prepared By

Linda Loomis, Administrator

Summary

In September 2023, when the Board of Managers approved the 2024 Work Plan, the Board requested quarterly updates. The 2024 Work Plan update for the first quarter of 2024 is attached for the Board's information.

In planning for the 2025 Work Plan, the Board of Managers will be invited to give feedback earlier in the process. The Board should determine how to proceed with its involvement with the 2025 Work Plan; either through discussing at the May Board of Managers meeting or through a work session. It could be combined with the discussion of the Fens that was requested by the Board after the Fen Stewardship presentation at the February Board of Manager meeting.

The Board should provide direction as to how it would like to proceed with development of the 2025 work plan.

Attachments

Technical Memorandum – Lower Minnesota River Watershed District – Projects and Programs Quarter 1 Progress Report, dated April 11, 2024

Recommended Action

Provide feedback and direction to staff

Technical Memorandum



To: Linda Loomis, Administrator
Lower Minnesota River Watershed District (LMRWD)

From: Della Schall Young, CPESC, PMP, Principal Scientist
Jess Norby, Senior Water Resources Scientist
Suzy Lindberg, Communication Manager

Date: April 11, 2024

Re: Lower Minnesota River Watershed District—Projects and Programs Quarter 1
Progress Report

The following summary shows the progress we have made on projects and programs and projects that have been completed.

PROJECTS AND PROGRAMS

Individual Project Permit Program

The LMRWD reviews permit applications for individual projects in cities without their local government unit (LGU) permits, Minnesota Department of Transportation (MnDOT) projects, and LGUs that have opted to have the LMRWD maintain specific rules through 2024. The LMRWD has reviewed 18 permit applications and inquiries and issued one permit in Quarter 1 of 2024 (January–March). Projects under review or permitted in 2024 are shown in Table 1.

Table 1. Projects that are under review, conditionally approved, or permitted in 2024

Permit Number	Project Name	Status	Date Received	Conditional Approval	Permit Issued
2022-031	RSI Marine Storage	Conditional Approval	9/20/2023	2/21/2024	-
2022-037	Peterson Wetland Bank	Active	5/23/2023	7/19/2023	1/9/2024
2023-013	Merriam Junction Trail	Under Review	3/20/2024	-	-
2023-017	MN Bluffs Regional Trail	Conditional Approval	12/28/2023	3/20/2024	-
2023-020	Tramore Heights Addition	Conditional Approval	8/21/2023	2/21/2024	-
2023-022	MAC SSC Phase 2*	Active Rule B/Under Review Rule D	10/2/2023	-	
2023-025	TH35W SP1981-140	Under Review	1/24/2024	-	-
2023-026	CP Pipeline Abandonment	Conditional Approval	1/5/2024	2/21/2024	-
2023-027	TH41 ORF Relocation	Under Review	12/12/2023	-	-
2024-001	Saint John’s Church	No Permit Required	1/15/2024	-	-

Permit Number	Project Name	Status	Date Received	Conditional Approval	Permit Issued
2024-002	MnDOT Pond Maintenance	Under Review	3/20/2024	-	-
2024-003	Port Cargill Savage	Upcoming	-	-	-
2024-004	35W Early Release*	Conditional Approval	2/20/2024	-	-
2024-005	Fort Snelling Cemetery	Upcoming	-	-	-
2024-006	T2 North Expansion	Under Review	2/28/2024	-	-
2024-007	Chalet Driving Range	No Permit Required	2/18/2024	-	-
2024-008	CD Terminal Storage Pad	Under Review	3/22/2024	-	-
2024-009	FWTEC	Under Review	3/28/2024	-	-
2024-010	Lyndale Road	Under Review	3/29/2024	-	-

*Projects are being brought to the board for review on April 17, 2024.

In addition to the application and inquiry reviews, the LMRWD also tracks expiration dates, renewals, and inquires for currently active or conditionally approved projects. The LMRWD has renewed nine permits in 2024.

Municipal Permits

The LMRWD reviews LGU permit applications for LGUs within the LMRWD. The LMRWD has reviewed and issued one (1) LGU permit application in 2024 for the City of Chaska. The City of Chaska now maintains LGU permitting authority for LMRWD Rule B and Rule D outside of the high value resource areas.

Education and Outreach (E&O) Program

In 2024, work continues to engage the community through the E&O Program service areas:

- Board of Managers Coordination
- Management of the Citizen Advisory Committee
- Social media activities
- Signage design and placement
- School engagement efforts
- Partnerships for community outreach and engagement activities

Board of Managers Coordination

Young Environmental coordinated the E&O Board Workshop held in January to discuss the future of engagement goals, successes, and concerns as well as the overall vision of the program.

Citizen Advisory Committee (CAC)

Young Environmental continues to support the CAC and will begin a recruitment search to meet membership goals because a current CAC member has resigned. We will coordinate and facilitate CAC meetings as the members have requested, including educational opportunities such as migratory bird watching along the Minnesota River, guided by Bob Brereton, a member of the board of directors for the Minnesota Valley Audubon Chapter.

Social Media

Young Environmental has placed routine social media posting on hold because our team is waiting for LMRWD board approval to move forward with the new vision we proposed, which consists of less frequent posting but greater focus on unique content relevant to the LMRWD. Our team incorporated feedback from the LMRWD board, the CAC, and staff from the E&O Board Workshop in January 2024 to adjust the E&O program vision of social media engagement. Posting for 2024 has been limited to critical information as the LMRWD administrator suggested.

Signage

Young Environmental has continued the conversations with local partners for interpretive signs that were created in 2023 and is collaborating to install the signs for Quarry Lake, Courthouse Lake, and Ike’s Creek. We will continue to identify and suggest future signage ideas for high-value resource areas and LMRWD project sites.

Schools Engagement

Young Environmental continued to advance the Educator Mini-Grant Program, releasing both direct mail and email blasts to raise awareness. Out of six applicants, five were awarded grants in March 2024—this was the largest number of applications received in one Educator Mini-Grant Program cycle. Our team is following up with one educator to assist with developing the scientific material for the project based on water quality sampling and analysis for grades 6 and 12.

Community Outreach Engagement

Young Environmental continued to build partnerships with local organizations toward achieving water quality and natural resource messaging and engagement goals. Our team has secured an LMRWD presence at several local events planned for 2024, some in a shared space with similar entities, such as Nine Mile Creek Watershed District, and will continue to coordinate tabling events while preparing necessary materials to successfully engage with the public in resource protection. A spring/summer newsletter and cost-share grant pamphlet are currently in draft for 2024 event table handouts.

Area 3 Minnesota Riverbank and Bluff Stabilization Project

Area 3 permit applications have been submitted, and coordination with the regulating agencies continues. The table below lists the permit applications that are in progress and their current status.

Permit	Status
MnDNR Public Waters	MnDNR requested a No-Rise Evaluation to complete the application. The no-rise model is currently undergoing Quality Assurance/Quality Check (QA/QC).
USACE Section 404	Permit issuance is waiting on the National Historic Preservation Association review to be completed.
Wetland Conservation Act	Approval depends on the USACE decision for Section 404.
USACE Section 106	106 Group is reviewing the potential for deeply buried soils in the western and eastern portions of the limits of disturbance to satisfy Section 106 requirements.

Permit	Status
Minnesota Pollution Control Agency (MPCA) 401 Certification	The MPCA waived its Section 401 authority
LMRWD Rules B and C	The no-rise model is currently undergoing QA/QC

After the project receives approval from the USACE under Sections 404 and 106, the WCA LGU, and the MnDNR, the project will continue with 90 percent design. Additionally, the LMRWD is working with Barr Engineering and AET to collect two soil borings on the upper slope of the bluff to investigate the groundwater levels. Soil boring collection is anticipated to happen this spring or early summer.

Fen Stewardship Plans

Stewardship Plans have been completed for Gun Club, Nicols Meadow, Savage, and Seminary fens. The plans identify a number of stewardship actions to protect and enhance the fens: improving groundwater data collection, continuing vegetation surveys, addressing invasive vegetation species, and pursuing opportunities for land acquisition around the fens in coordination with the MnDNR. Two meetings were held in March with MnDNR fen program staff to discuss LMRWD fens and prioritization of stewardship actions. At the MnDNR’s request, and for collaboration purposes, the stewardship matrices in the four plans are being combined into a single LMRWD fen matrix that will identify priority stewardship actions at each fen.

Ground and Surface Water Resources

MnDNR staff suggested that Seminary Fen wells would benefit from upgraded equipment to gather more precise groundwater level data. Price quotes have been obtained, and further coordination is happening with Carver County and MnDNR to ensure the equipment meets the monitoring requirements and to determine installation, data gathering needs, and responsibilities.

MnDNR staff noted in recent meetings the importance of getting a better understanding of the drain tile network that exists in Seminary Fen. Field work will be completed this spring or summer to field-verify and record GPS locations of drain tiles and outlets. This field verification will use drain tile maps that identify historical tile information as a reference. After the initial field assessment, additional fieldwork may be planned to assess drain tile condition and functionality, such as video scoping of the tile lines.

Groundwater recharge maps are being developed for the four fens to help better understand where the groundwater that feeds the fens is coming from. The mapping effort is expected to be completed by summer 2024.

Vegetation

Buckthorn and purple loosestrife control actions are being planned in coordination with MnDNR staff, including additional efforts to map native vegetation and invasive species in the fens. A volunteer buckthorn removal event for Seminary Fen will be held on April 14.

Property Acquisition

Further coordination will occur with MnDNR on property acquisition. An LMRWD consultant will be contracted to research private properties around the fens and to assess property values and

potential steps to acquisition.

Vernon Avenue Dredge Material Management Site

In January 2024, Bolton & Menk, Inc., finalized the 100% Construction Plans and prepared the Bid Package and Engineer's Opinion of Probable Cost. Additionally, we transmitted the Archeological Literature Review and Assessment and Architectural History Survey to the Minnesota State Historic Preservation Office for concurrence. The next step in the project is to advertise the project for bids.

Gully Inventory and Condition Assessment

The 2023 Gully Inventory project identified four priority gullies to be further studied in 2024 to assess causes of erosion and identify methods to stabilize, restore, or minimize further erosion. Three of the gullies are in Shakopee, and one is in Burnsville. Two of the Shakopee gullies are expected to be addressed as part of an upcoming City of Shakopee riverbank stabilization project near Huber Park. A meeting will be held with Shakopee staff in mid-April to determine if there are areas the LMRWD can support in the gully stabilization work that the City will undertake as part of the Huber Park project.

Field work is planned for mid-April to collect detailed site information and assess potential stabilization methods for the third Shakopee gully and the Burnsville gully. Contour maps of these two gullies have been developed from recent US Geological Survey data. Once site data have been collected, hydraulic and hydrologic modeling will be completed to aid in determining appropriate stabilization techniques or other methods to reduce erosion.

Work will begin in late spring and summer on the following tasks:

1. Collect public pipe outfall information to complete an assessment of public pipe outfalls and their connection to gullies on private properties.
2. Complete a desktop analysis using new light detection and ranging (LiDAR) data to identify gullies that have not been previously inventoried.
3. Further assess methods to access gullies previously deemed inaccessible.

The third volume of the LMRWD's gully inventory and condition assessment program has been completed. The 2023 gully assessment was implemented to assess the high- and very high-priority gullies identified during past years to determine if the sites continue to pose a risk, identifying appropriate candidates for potential restoration projects.

The 2023 assessment consisted of four components:

1. Field preparation and training
2. Field data collection
3. Gully ranking
4. Recommendations

The sites were sorted into four categories:

1. Public Safety Concern
2. Public No Safety Concern
3. Private Safety Concern

4. Private No Safety Concern

The gullies were ranked by need for restoration based on a scoring system within their given categories. To quantitatively rank each gully, multiple factors were considered, including erosion potential score, proximity to LMRWD natural resources, and number of MPCA sites marked as “under investigation” or an “active cleanup site” within a one-mile radius of the LMRWD 2023 Gully Inventory and Condition Assessment Project site. Each factor was assigned points that correspond to varying rates of degradation and need for remediation to provide a final ranking score for each gully.

Ongoing activities in 2024 include the following:

1. A restoration feasibility study will be conducted for four recommended gullies, based on a list recommended from the 2023 study.
2. The 2023 project recommended completing a high-level assessment of public pipe outfalls and their connection to gullies on private property.
3. A desktop analysis using new LiDAR data is planned to identify gullies that have not yet been inventoried.
4. Gullies that were considered inaccessible by foot will be assessed for alternative modes of accessibility.

Floodplain Modeling Project

The modeling approach for this project is being discussed with the MnDNR floodplain managers for their feedback before we present the approach to LMRWD municipal partners. We have also started a literature review to investigate methods for estimating future peak discharges on the Minnesota River, which will inform future conditions’ floodplain modeling and mapping. Model updates will commence after concurrence is obtained from municipal partners.

Spring Creek Site Stabilizations

ISG estimated wetland impacts based on the 60% design plans and the wetland delineation completed in the fall 2023. We submitted the updated wetland impacts with our joint application to the USACE and are awaiting a response. The USACE will determine whether a cultural resources review is necessary to complete the project. The project is in the City of Carver Historic District, so there is potential for cultural resource impacts.

Trout Stream Geomorphic Assessment

This project will implement recommendations from the original trout stream assessment completed in 2019. Eight trout streams will be resurveyed to assess changes in stream alignment, cross-sectional geometry, and base flow. Stream width-to-depth ratios, stream bed slope, meander pattern, habitat conditions, and other features will be analyzed to assess stream health and stability. Interns will begin stream surveys in late May to collect data to inform the geomorphic assessment report they will complete by the end of August.

Water Resources Restoration Fund

This program will fund projects sponsored by LGUs that reduce urban nonpoint source pollution, improve and protect groundwater quality, and promote surveys and studies of wetland (fen) health and management. An official application process for the Water Resources Restoration Fund was developed and distributed to the LGUs within the LMRWD.

Application materials were sent to LGUs on December 8, 2023, after the municipal coordination meetings, with three application and deadline reminders. Applications were due on February 29, 2024. The LMRWD received one (1) application from the City of Eden Prairie for the Richard T. Anderson (RTA) West Buff Overlook Stabilization Improvements Project. The project was reviewed in line with previously developed evaluation forms. The funding recommendation will be presented at the April 17, 2024, LMRWD Board meeting.