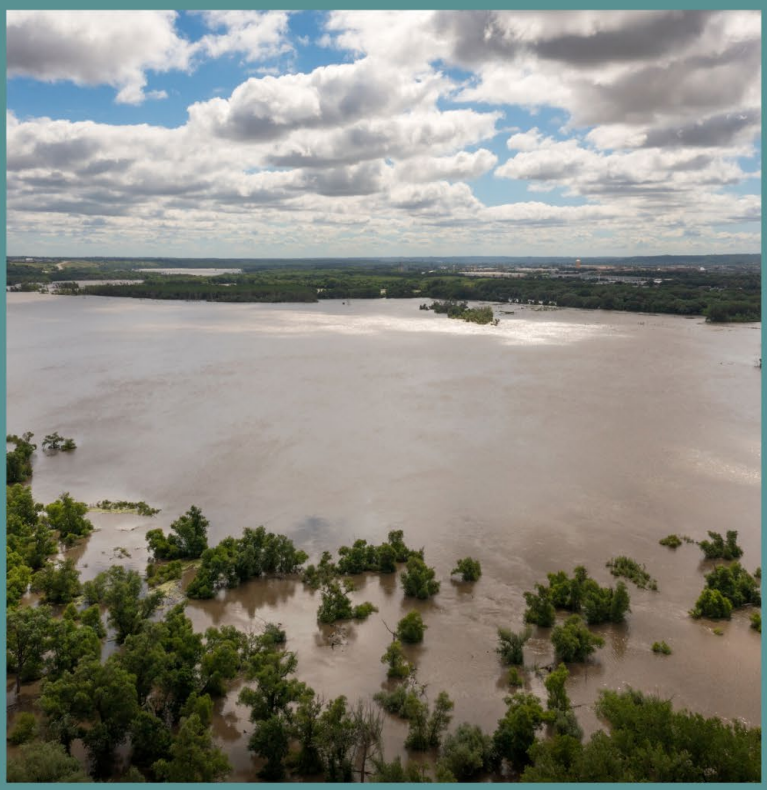
2024

ANNUAL REPORT

LOWER MINNESOTA RIVER
WATERSHED DISTRICT

GREETINGS

The Lower Minnesota River Watershed District (LMRWD) manages water and natural resources in the south metro, following the Minnesota River from Carver to Mendota Heights and parts of Lilydale. In a highly developed area of the Twin Cities, this community holds valuable resources that are both concealed and central to the region. From cold-water trout streams to the Minnesota River, the LMRWD includes important ecological areas to protect and offers unique recreational opportunities.



Flooding on the Minnesota River

2024 HIGHLIGHTS

Significant Flooding Impacts the Minnesota River
In 2024, the LMRWD experienced a major flooding event with notable impacts to the areas along the Minnesota River. The failure of the Rapidan Dam in Mankato, Minnesota, brought an increased amount of sediment to the LMRWD's portion of the river. Flooding caused the closure of the nine-foot navigation channel, affecting the river's use and increasing the overall amount of sediment removal to maintain river navigation. The LMRWD continues to address the challenges of flooding with an increased impact of more frequent and extreme rainfall events.

Fens as a Valued and Unique Resource
The LMRWD progressed on fen stewardship plans, developed in collaboration with the Minnesota Department of Natural Resources (MnDNR) to protect calcareous fens as an extremely rare and precious natural resource. The LMRWD is working to understand ways to identify and address damage caused by past activities and uncover current activities that could potentially harm these fragile ecosystems, ensuring their protection.

Partnership in Action
From partnerships with cities, nonprofit organizations, educators, and subject-matter experts, the LMRWD continues to value collaboration to address large, basin-wide challenges. In 2024, the Lower Minnesota River East Planning Partnership finalized and approved its Comprehensive Watershed Management Plan, which was drafted in partnership with the LMRWD through a memorandum of agreement, with implementation to begin soon.

As the district's challenges continue to evolve, so does the organization's resilience to adapt and improve. As I finish my final months as administrator, we look to our Board of Managers and new leadership to continuously address upstream impacts and identify partnership opportunities.

IN PARTNERSHIP,
LINDA LOOMIS, ADMINISTRATOR

A. BOARD OF MANAGERS

The Board of Managers oversees the direction of watershed management, bringing representation from each county within the LMRWD. The Citizen Advisory Committee (CAC) is a voluntary advisory group appointed by the Board to engage citizens in community actions. The election of officers was held at the October Board of Managers meeting.

Apollo Lammers
Scott County
Term Expires:
2/28/2025

Joseph Barisonzi
President
Hennepin County
Term Expires:
2/28/2027

Theresa Kuplic
Vice President
Dakota County
Term Expires:
2/28/2027

Lauren Salvato
Secretary
Carver County
Term Expires:
2/28/2026

Vinatha Viswanathan
Hennepin County
Term Expires:
2/28/2026

Thank you, Manager Amundson!

In February 2024, Laura Amundson ended her term of service as a Board Manager after representing Hennepin County since August 2021. With a technical background in engineering, Manager Amundson brought a unique, valuable vantage point to the Board discussions and decision-making. She made many significant contributions during her tenure, including her recent service on the Policy Committee for the neighboring Lower Minnesota River East Comprehensive Watershed Plan.

The Board of Managers meets on the third Wednesday of every month at the Carvery County Government Center. The public is welcome to attend meetings. Learn more at https://lowermnriverwd.org/meetings.

CITIZEN ADVISORY COMMITTEE

The CAC is a voluntary advisory group appointed by the Board to engage citizens in community actions. See page 21 to learn more about the CAC's work in 2024 and how to get involved.

CAC Membership

- **Judy Berglund**
- **Greg Genz**
- **Kati Johngrass***
- **Lee Peterson**
- **Patty Thomsen**
- **Meah Vogel***
- **Holley Wlodarczyk***
- **Kathryn Zebrev***

New member in 2024

TECHNICAL ADVISORY COMMITTEE

Partner Organization	
SWCDs	
Carver Soil and Water Conservation District	View Website
Dakota Soil and Water Conservation District	View Website
Scott Soil and Water Conservation District	View Website
Counties	
Carver County	View Website
Dakota County	View Website
Hennepin County	View Website
Scott County	View Website
Cities	
Bloomington	View Website
Burnsville	View Website
Carver	View Website
Chanhassen	View Website
Chaska	View Website
Eagan	View Website
Eden Prairie	View Website
Lilydale	View Website
Mendota	View Website
Mendota Heights	View Website
Savage	View Website
Shakopee	View Website

Partner Organization	
Park District	
Three Rivers Park District	View Website
Tribal Government	
Shakopee Mdewakanton Sioux Community	View Website
State Agencies	
Metropolitan Airports Commission	View Website
Minnesota Board of Water and Soil Resources	View Website
Metropolitan Council Environmental Services	View Website
Minnesota Department of Natural Resources	View Website
Minnesota Department of Transportation	View Website
Minnesota Pollution Control Agency	View Website
Federal Agencies	
US Army Corps of Engineers	View Website
US Fish & Wildlife Service	View Website

The Technical Advisory Committee (TAC) supports the LMRWD in specific areas of expertise across jurisdictional boundaries. Engineers and water resource coordinators from each organization are typically appointed to participate on the LMRWD TAC during their tenure.

STAFF AND CONSULTANTS

ACCOUNTING
Christopher Knopik
Clifton Larsen Allen, LLP
220 South Sixth Street, Suite 300
Minneapolis, MN 55402
612-397-3266
christopher.knopik@claconnect.com

AUDITING
Andy Hering
Redpath and Company
4810 White Bear Parkway
White Bear Lake, MN 55110
651-426-7000
AHering@redpathcpas.com

ENGINEERING/TECHNICAL
Della Schall Young
Young Environmental Consulting Group, LLC
6040 Earle Brown Drive, Suite 306
Brooklyn Center, MN 55430
651-249-6974
della@youngecg.com

DREDGE SITE OPERATIONS
Taylor Luke
LS Marine
300 Centerville Road, Suite D
St. Paul, MN 55117
651-653-6307
taylorl@lsmarine.com

LEGAL
John C. Kolb
Rinke Noonan
1015 St. Germain Street, Suite 300
St. Cloud, MN 56303
320-251-6700
jkolb@rinkenoonan.com

LEGISLATIVE
Joe Birkholz and Molly Jansen
Park Street Public
525 Park Street
St. Paul, MN 55103
651-493-8942
molly@parkstreetpublic.com

B. CONTACT PERSON

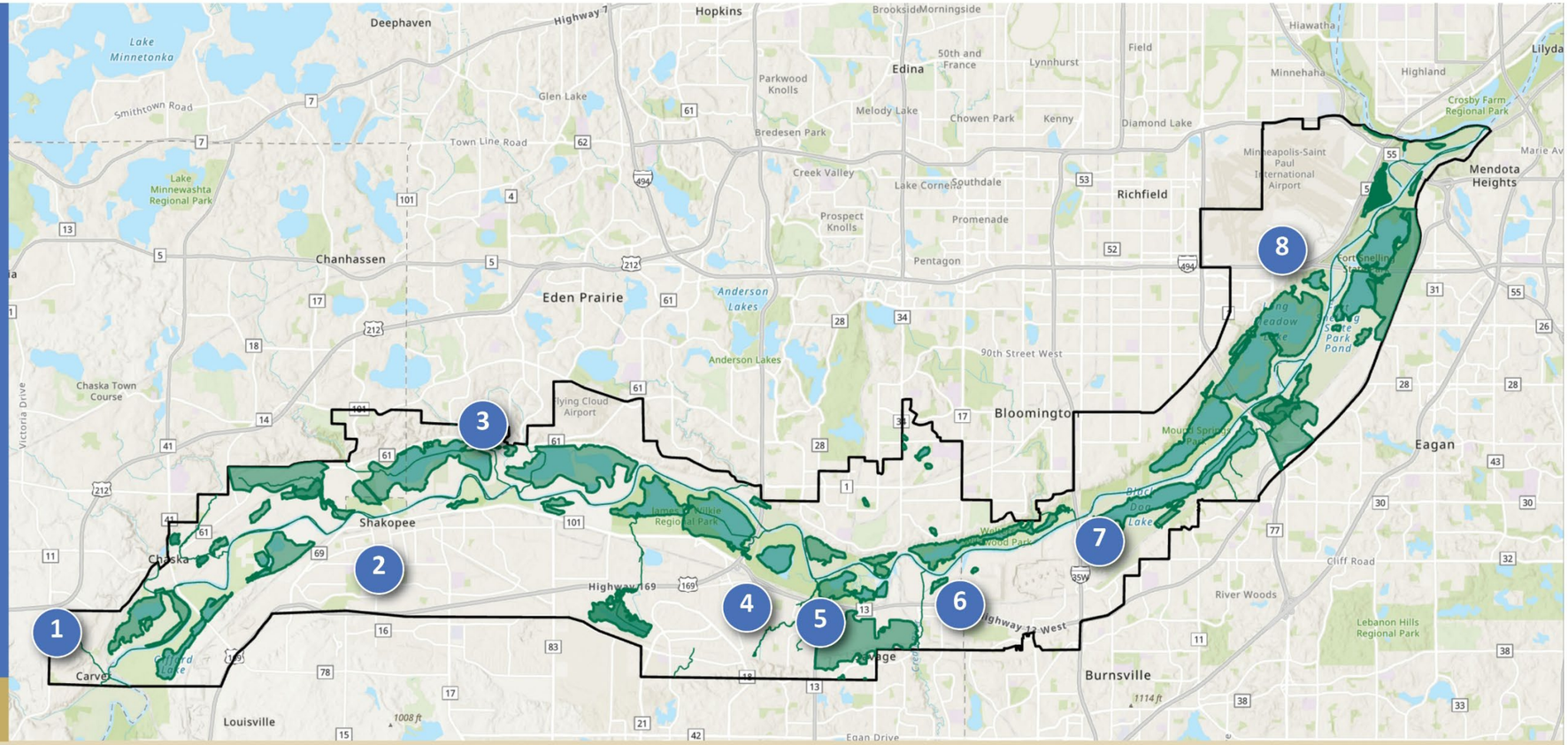
Linda Loomis, Administrator
Naiad Consulting, LLC
112 5th Street East, Suite 102
Chaska, MN 55318
763-568-9522
naiadconsulting@gmail.com

C. PREVIOUS YEAR WORK-PLAN SUMMARY

LMRWD PROJECTS

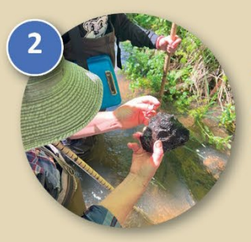
In 2024, the LMRWD led a variety of projects throughout the watershed to provide ongoing flood control, stream and riverbank repairs, channel maintenance to ensure navigation on the Minnesota River, and protection for unique resources. The LMRWD also worked to address emerging threats such as chloride pollution.

The LMRWD undertook work to stabilize creek and streambanks to reduce erosion, maintain critical infrastructure, dredge and manage sedimentation in the Minnesota River, study and protect rare resources such as trout streams and fens, and prepare for future flood events through critical model updates.



PROJECTS

1 **Spring Creek Site Stabilization**



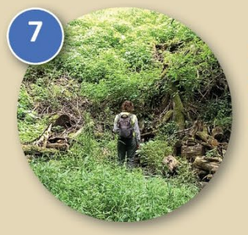
2 **Trout Stream Geomorphic Assessment**

3 **Area 3 Minnesota Riverbank and Bluff Stabilization Project**

4 **Fen Stewardship Plans**

5 **Vernon Avenue Road Improvement**

6 **Nine-Foot Channel Maintenance**



7 **Gully Inventory and Condition Assessment**

8 **Floodplain Modeling Project**

Learn more about the projects starting on page 5.

Spring Creek Site Stabilization

In 2022, the LMRWD began investigating erosion along Spring Creek after residents reached out regarding impacts to private property at three sites along the creek in Carver, Minnesota.

In 2023, the LMRWD advanced two of the sites for bank stabilization practices, which were designed to the 60 percent level. The LMRWD submitted a wetland delineation to the US Army Corps of Engineers (USACE). The LMRWD studied the third site further but determined that a project was not needed because of low erosion potential. The LMRWD will continue to work with the homeowner, by providing a steep slopes management plan for the site.

Construction took place in 2024 and was completed in November.

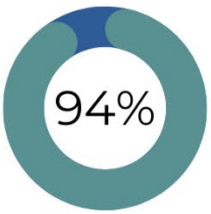
PROJECT PROGRESS

The Spring Creek Site Stabilization project is composed of two areas:

- **Site 1** (112 5th Street West), which included 95 feet of streambank
- **Site 2** (404 Broadway Street), which included 78 feet of streambank

Construction activities included vegetation and tree removal and clearing on the creek's banks, removing downed trees and debris within the stream channel, installing rip rap, live stakes, and coir log benches, and bank grading and revegetation.

Site 1



Site 2

There are numerous benefits to the Spring Creek ecosystem and surrounding private property!

The updates have created the following:

- Slower creek velocity to reduce erosion and downstream sedimentation
- Protection for private property, such as garage foundations
- Larger stream bend for natural creek flow

Construction has been substantially completed on two sites in Carver, Minnesota! Final stabilization requires completion in spring growing conditions, which will occur in May 2025.

Trout Stream Geomorphic Assessment

The LMRWD completed a geomorphic evaluation of six trout streams in the watershed:

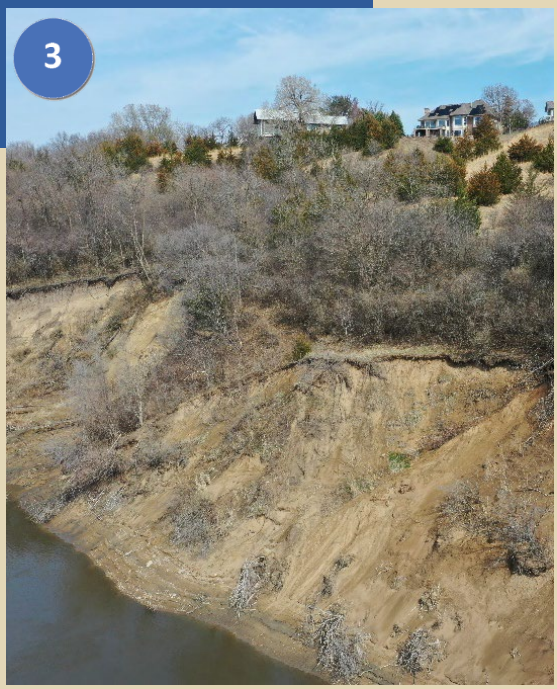
1. Assumption Creek (Carver County)
2. Eagle Creek (Scott County)
3. Ike's Creek (Hennepin County)
4. Unnamed Creek 1 (Dakota County)
5. Unnamed Creek 4 (Dakota County)
6. Unnamed Creek 5/6 (Dakota County)

The purpose of this evaluation, which was a component of the LMRWD's Watershed Management Plan, was to collect information on trout habitat appropriateness and stream stability. The study detailed erosion and habitat issues for trout stream health, providing a valuable tool for future trout stream management and the unique cultural and recreational resources they provide.

Field staff surveyed and assessed trout streams to collect data and build on previous assessments for the viability of trout habitat. The habitat assessment explored water conditions, habitat features, and other criteria, while a pebble count was used to identify spawning grounds and cover needed for trout life. A stream crossing assessment focused on the migration of trout through streams and determined potential barriers.

The study identified several recurring issues across all streams, including instability and erosion, sedimentation, lack of habitat diversity, barriers to aquatic organism passage, and beaver dam impacts. The data give the LMRWD a starting point to assess management efforts to retain this critical high-value resource in future years.

The LMRWD is home to trout streams, providing fishable habitat to the south metro. These resources are also fragile and require a sufficient stream of cold water to maintain fish habitat.



Area 3 Minnesota Riverbank and Bluff Stabilization Project

The LMRWD is home to many areas with steep slopes along the Minnesota River. Within Area 3 in the City of Eden Prairie, there is large-scale erosion occurring at the intersection of a sharp bend in the Minnesota River and steep riverbank slopes.

The eroding bluff spans 700 feet of riverfront land, which is the width of two football fields. At 60 feet high, the steep slope is comparable to a six-story building and is actively eroding at an estimated rate of three feet per year. This issue is contributing to the excessive erosion and sediment concerns of the Minnesota River.

In 2024, project development advanced through 60 percent design and the completion of archaeological, boundary, and legal surveys. The project will continue into 2025 with the complex components of permitting and property acquisition to be completed along with final design. Once constructed, the project will reduce not only a significant amount of erosion but also risk to bluff properties.

Fen Stewardship Plans

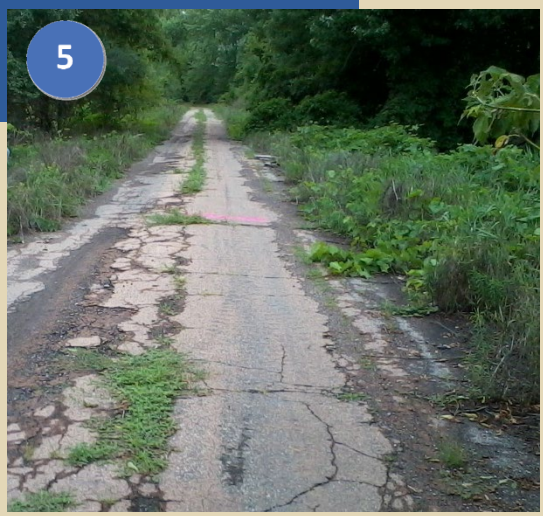
Calcareous fens are wetlands fed by calcium-rich groundwater that are home to rare plants. They are a unique resource within the LMRWD.

To continuously manage and protect this rare resource, the LMRWD has led an ongoing collaboration with the MnDNR and the Metropolitan Council to develop management plans to protect, preserve, and possibly restore calcareous fens within the LMRWD. The management plans prescribe ongoing assessments and strategies to ensure these unique wetlands are protected from potential impacts, including land use and climate change. The plans document the unique interaction of groundwater and its recharge rate to feed the fens.

Fen management plans have been developed for four fens, with a four- to five-year effort to remove invasive buckthorn within the Seminary Fen Scientific and Natural Area (SNA).

What can you do to protect fens?

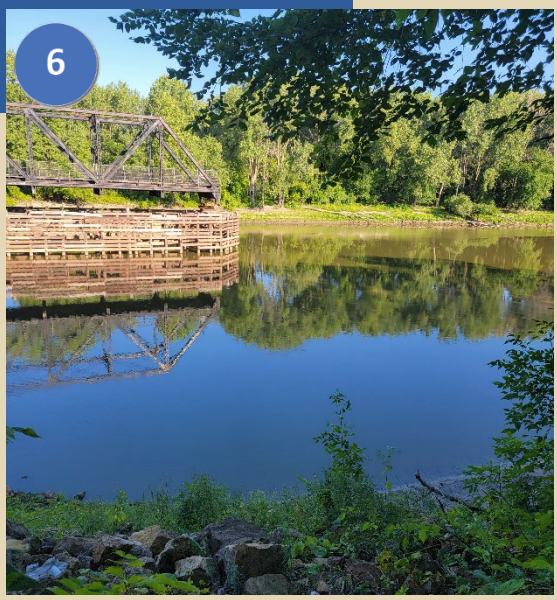
1. **Find a fen in your area: Gun Club Lake Fen and Nicols Meadow Fen (Dakota County), Savage Fen (Scott County), or Seminary Fen (Carver County)**
2. **Love them from afar! Stay on walking trails, so precious plants are not disturbed.**
3. **Participate in volunteer events to help remove buckthorn, an invasive species.**



Vernon Avenue Road Improvement

The LMRWD is responsible for disposing of material dredged from the Minnesota River by USACE. Dredge material is placed at a disposal site, which is located at River Mile Post 14.2 (RMP 14.2) in Savage, Minnesota, and accessed by Vernon Avenue. Field assessments showed Vernon Avenue was in disrepair and required maintenance.

The LMRWD led an important project to improve Vernon Avenue, ensuring safe and effective access to the dredge management site. The LMRWD completed plans to rehabilitate the road and a nearby culvert, and the project was bid for construction in November 2024. The project involved coordination with the Union Pacific Railroad to allow access and work within the railroad right-of-way. The LMRWD finalized plans in 2024 with planned construction to occur in 2025. This infrastructure upgrade will allow the LMRWD to continue to remove dredge material from the Minnesota River effectively.



Nine-Foot Channel Maintenance

The nine-foot navigation channel is at the cornerstone of LMRWD's work, dredging and removing sediment from the Minnesota River in coordination with the USACE. The LMRWD maintains the navigation channel using the USACE Dredged Material Management Plan for reaches of the Minnesota River upstream of the I-35W Bridge.

The LMRWD also works with local industry to temporarily store material dredged from private barge slips. The dredge site is an important component of successfully maintaining the channel of the Minnesota River, making it a working river that is key to local and national industry.

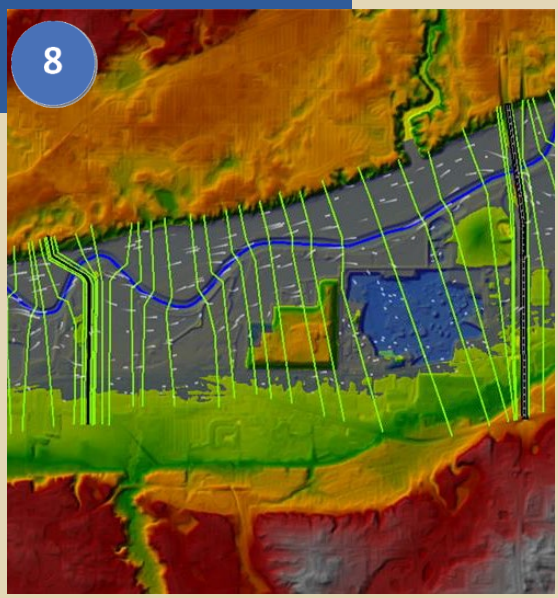
Did you know?

The LMRWD is unlike any other state water management organization. It was formed in 1960 as a legal entity to provide local participation to USACE during the construction and maintenance of a nine-foot navigation channel. This allows the river to remain navigable for key commerce purposes.

Gully Inventory and Condition Assessment

The LMRWD has led a multiyear study to assess gullies, ravines that are formed by passing water, throughout the watershed for their contribution of sediment into the Minnesota River. Using fieldwork data from previous years, the LMRWD identified four gullies in 2024 for a restoration feasibility study. The evolution of this study involved investigating public pipe outfalls and their drainage into gullies and introducing the use of LiDAR data to efficiently inventory new gullies in the future. LiDAR data will be especially useful for gullies that are inaccessible by foot.

Restoring erosion at key points in gullies will allow the LMRWD to manage the amount of gully erosion contributing excess sediment to the Minnesota River and other downstream waters. In addition to exploring restoration options, the LMRWD also studied process efficiency to better manage the system of gullies in the future.



Floodplain Modeling Project

State agencies and the LMRWD developed the existing floodplain model in 2004. Since this time, there has been a significant change in the water surface elevation, and the LMRWD leadership questioned the model's effectiveness as a decision-making tool and its use for resource management.

Following a process to compare the efficiency of the model with the updated District rules, the LMRWD determined that the floodplain model needed to be updated. In 2024, the LMRWD completed an updated floodplain model to incorporate current data and coordinated with municipal partners to understand the implications of the model update. The model is currently under review with floodplain partners at the MnDNR and will be completed and adopted in early 2025.

"I'm really proud of how the LMRWD engaged in the geomorphic assessment of trout streams, especially with the Ike's Creek Trout Stream Restoration. The LMRWD is continuing to engage with the MnDNR and US Fish & Wildlife Service to restore these rare and beautiful natural resources in our district."

—Manager Theresa Kuplic, Dakota County

ONGOING PROGRAM WORK

Monitoring Program

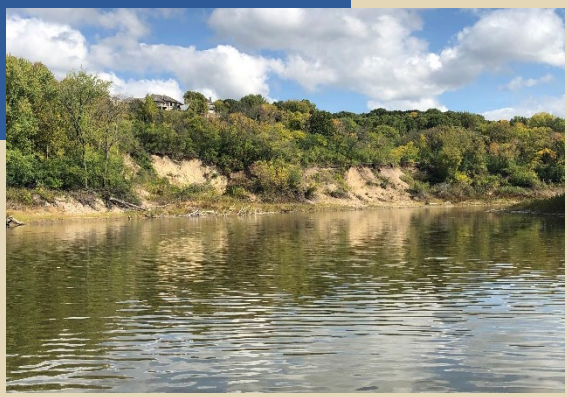
The LMRWD collaborates with local partners at soil and water conservation districts to obtain current monitoring data. The watershed district is home to many urban lakes, rivers and streams, calcareous fens, and trout waters. Water quality monitoring helps identify trends that inform management strategies and protection and improvement of valuable waterbodies. To learn more about monitoring in the LMRWD, see page 17.

Education and Outreach Program

An important component of our work is educating residents and businesses about the challenges faced and the opportunities to enjoy the rare resources that make the LMRWD so unique. The Education and Outreach (E&O) Program uses many outreach components, including cost-share grants, signage, media channels, and special events to engage the public and partners in resource protection. To learn more about E&O activities completed in 2024, see page 21.

Municipal Permit Program

The LMRWD issues municipal permits to partner cities within the watershed district, which allows them to issue permits and manage actions as the primary permitting authority. The LMRWD frequently leads municipal coordination efforts to ensure that city regulations are working in parallel with the LMRWD rules and standards. The LMRWD leads periodic audits of municipal permittees to determine areas of excellence and opportunities for enhancements. To learn more about the Municipal Permit Program, see page 27.



Individual Permit Program

The LMRWD operates an individual permit program for new development occurring within the watershed district, where there is not an active municipal permit. The regulation is not designed to add more permit requirements but to perform specific checks related to LMRWD-specific interests such as steep slopes, high-value resource areas, and floodplain alteration. The LMRWD Permit Team works collaboratively with permittees to ensure a seamless process. To learn more about permitting, see page 28.

D. WORK PLAN AND BUDGET

The LMRWD continues its work on programs and projects defined in the Watershed Management Plan.

Administrative and Managerial Funds	2024 Cost
Administrative Services This fund is used for staffing, conferences, coordination with stakeholders, nine-foot channel navigation, and CAC coordination.	**$377,838**
Program and Resource Plan Funds	
Cost-Share Incentives and Water Quality Restoration Program The LMRWD offers funding for community members to implement water resources projects and guide educational activities.	**$20,000**
Dredge Management The LMRWD oversees the operations and management of the dredge management site on the Minnesota River.	**$240,000**
Education and Outreach Program The LMRWD will continue to lead activities that engage and inform the community in watershed management, including the CAC, special events, and sponsorships.	**$115,000**
Fen Stewardship Program The LMRWD is developing specific management strategies for continued protection and preservation of these valued resources.	**$75,000**
Fen Private Land Acquisition Study This study was an investigation of changing hydrology and vegetation in rare fen habitat. In areas where the habitat historically extends beyond protected Scientific Natural Areas (SNAs), the LMRWD evaluated potential land acquisition adjacent to SNAs while considering how such acquisition may open doors for more effective management and restoration.	**$50,000**
Sustainable Lakes Management Plan: Trout Lakes Sustainable Lakes Management Plans (SLMPs) take a range of existing data, studies, and relevant projects associated with Brickyard Clayhole Lake, Courthouse Lake, and Quarry Lake. They are used to help seek funding, set goals, and steer future projects in a way that's based on data. These SLMPs focused on Minnesota classified trout lakes within the LMRWD.	**$50,000**
Geomorphic Assessments: Trout Streams The LMRWD completed a geomorphic evaluation of six trout streams in the watershed, collecting information about trout habitat appropriateness and stream stability.	**$100,000**
Downtown Shakopee Stormwater Best Management Practices (BMPs) Continuation of the 2020 study to implement stormwater infiltration BMPs, proven methods to prevent and reduce pollution in stormwater runoff, with the City of Shakopee.	**$50,000**
Gully Inventory and Assessment Program The LMRWD leads ongoing inventory and assessment of more than 300 gullies throughout the watershed district.	**$150,000**
Monitoring Program The monitoring program will continue to track progress toward water quality goals through a detailed data assessment.	**$75,000**

Permit and Project Reviews Program The permit program ensures new development complies with the watershed management plan and LMRWD rules, including permit reviews and site inspections.	**$50,000**
Local Water Management Plan Reviews The LMRWD allocates time and funding to review local municipal water plans, looking for plan compatibility and ways to promote collaboration.	**$5,000**
Water Resources Restoration Fund The LMRWD provides project funds to partners completing work within the LMRWD with a shared benefit toward watershed management goals.	**$82,500**
Spring Creek Site Stabilization The LMRWD studied three sites for bank stabilization measures, with two advancing to the design and construction stage. Vegetation management (e.g., removal of invasives, native plantings), will be explored with the property owners.	**$100,000**
Capital Improvement and Cooperative Project Funds	
Seminary Fen Ravine Restoration Site (C-2) Efforts at this restoration site help in reducing sedimentation accumulation, stabilizing slopes, conducting invasive species removal, and reintroducing specific fen-adapted native plants to the site. This project supports the preservation of rare plant communities and hydrologic function and continues education surrounding this water resource.	**$90,000**
Eagle Creek Bank Restoration This bank restoration is being conducted in concert with another restoration with the City of Savage. Both efforts help reduce sediment loading into the Minnesota River, protect this ground-fed water resource, and support future trout habitat.	**$30,000**
Shakopee Riverbank Stabilization This bank restoration repairs a problematic source of sedimentation into the Minnesota River.	**$50,000**
Minnesota River Study Area 3—Bluff Stabilization Project To address riverbank erosion, the LMRWD is leading a large-scale design and construction of stabilization practices for Area 3 project in Eden Prairie, Minnesota. The project continued with the design, permitting, and funding and land acquisitions.	**$100,000**
Levy	
Scheduled Area 3 Bond Payments	$300,000
Total	**$2,110,338**

E. PROGRESS ON GOALS

The LMRWD has defined nine goals within its Watershed Management Plan. Each annual work plan includes programs and projects that are prioritized to advance progress on each of these goals.

Goal	Strategies	Short-Term Metric	Long-Term Metric	2024 Progress to Goal
Goal 1: Organizational Management	• Cooperate with local, state, and federal government; other agencies; and nongovernment organizations on issues affecting the District's resources. • Provide public information services. • Perform periodic assessments and program reviews. • Use short-term and long-term metrics to measure progress.	✓ Completion of scheduled activities ✓ Annual local government units (LGU) audits ✓ Number of dollars from other agencies and property owners	✓ Formation of a Minnesota River Basin Commission ✓ Legislative funding support	✓ Continued collaboration with partners on water and natural resources projects ✓ Hosted municipal/LGU coordination meetings ✓ Managed legislative funds for dredge material management
Goal 2: Surface Water Management	• Provide strategic resource evaluation and management. • Develop a High-Value Resources Area overlay district. • Create watershed management standards. • Promote disconnected stormwater management and low-impact development. • Develop a cost-share incentive program. • Lead water quality restoration programs. • Modify and continue the monitoring program. • Complete detailed data assessments. • Coordinate with other agencies and water quality programs. • Develop steep slopes standard.	✓ Number and types of projects completed as part of the cost-share incentive program and water quality restoration programs ✓ Number of targeted studies and projects completed	✓ Positive trends in water quality parameters identified for monitoring efforts	✓ Continued surface water management programs ✓ Continued monitoring program ✓ Continued water quality cost-share incentive program ✓ Targeted studies and projects that focus on surface water management.

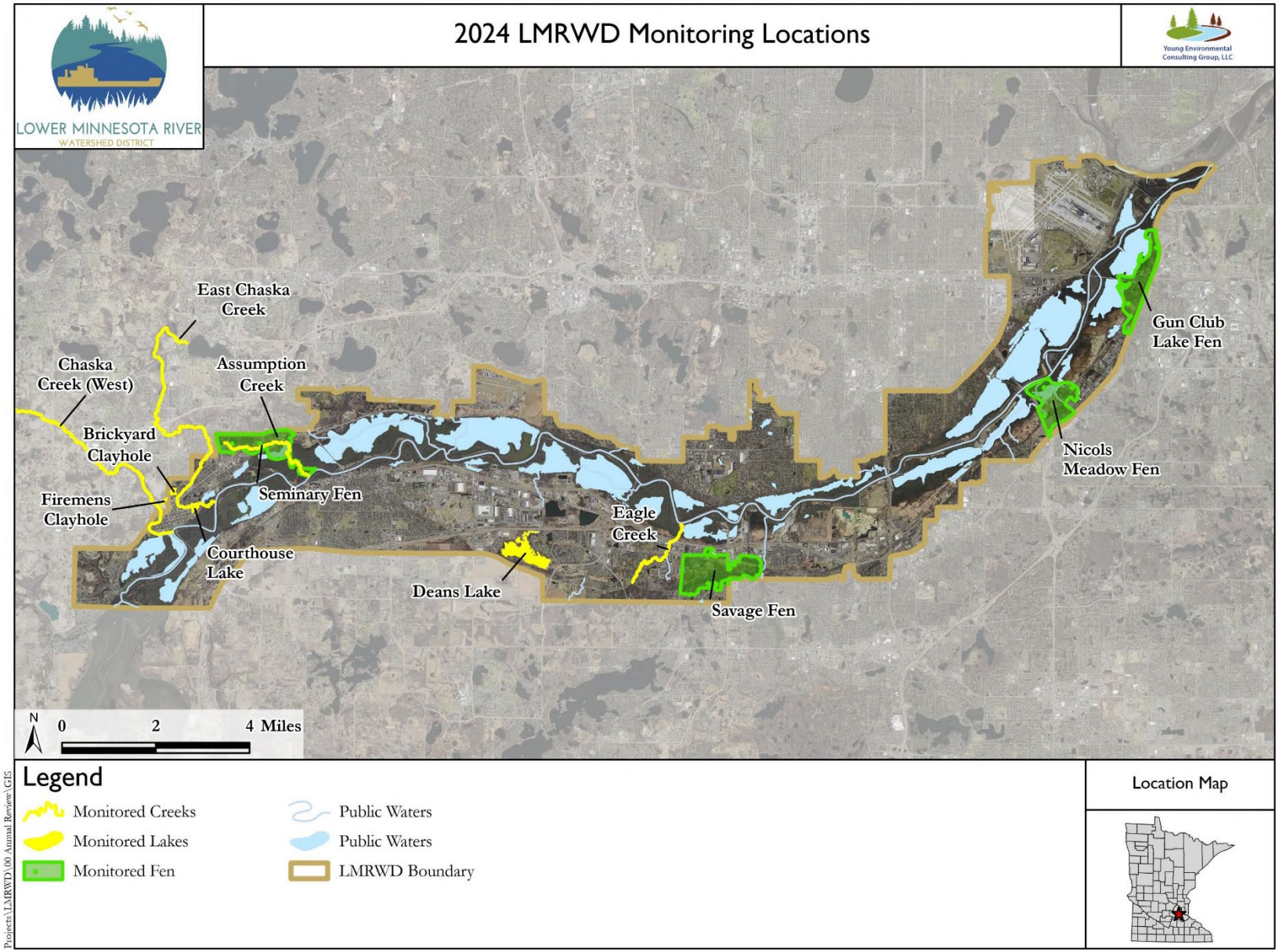
Goal	Strategies	Short-Term Metric	Long-Term Metric	2024 Progress to Goal
	• Develop a vegetation management standard/plan.			
Goal 3: Groundwater Management	• Provide strategic resource evaluation and management. • Modify and continue the monitoring program. • Support wellhead protection efforts. • Develop infiltration standard. • Promote conservation and wise use of groundwater. • Monitor groundwater. • Perform regional modeling.	✓ Number of targeted studies and projects completed	✓ Positive trends in water quality parameters identified for monitoring efforts	✓ Continued monitoring lakes, streams, and fens ✓ Completed the monitoring program
Goal 4: Unique Natural Resources Management	• Provide strategic resource evaluation and management. • Modify and continue the monitoring program. • Acquire and manage data. • Provide technical assistance. • Provide educational opportunities. • Develop a mechanism for identifying and acquiring high-value conservation easements. • Encourage wildlife connectivity projects that achieve multiple goals, such as water quality improvements and fen and steep slopes protection. • Develop a vegetation management standard/plan.	✓ Number of targeted studies and projects completed ✓ Development and completion of the Fen Stewardship Plan ✓ Development of groundwater model for fen management	✓ Number and acreage of unique natural resources protected, restored, or enhanced ✓ Acquisition of high-valued easements ✓ Sustained protection of the fens and trout waters	✓ Drafted and adopted Fen Management Plans ✓ Further studied gullies throughout the watershed district ✓ Created website content to showcase recreational opportunities at natural resource sites
Goal 5: Wetland Management	• Provide strategic resource evaluation/management.	✓ Completion of scheduled activities	✓ Number and acreage of wetlands	✓ Continued support to LGU partners regarding

Goal	Strategies	Short-Term Metric	Long-Term Metric	2024 Progress to Goal
	• Develop a mechanism for identifying and acquiring high value conservation easements. • Delegate Wetland Conservation Act (WCA) to LGUs. • Require LGUs to conduct wetland inventories and complete wetland management plans. • Review WCA notices as received. • Develop a wetland standard. • Develop a vegetation management standard/plan.		protected, restored, or enhanced	Wetland Conservation Act (WCA) ✓ Drafted and adopted Fen Management Plans
Goal 6: Floodplain and Flood Management	• Develop floodplain and drainage alteration standard. • Develop infiltration and peak flow standards. • Manage localized flooding. • Adopt infiltration and peak flow standards.	✓ Completion of scheduled activities	✓ Number of structures damaged and value of flood damages ✓ Preservation of floodplain resources	✓ Completed the updated Minnesota River Floodplain Model
Goal 7: Erosion and Sediment Control	• Develop watershed management standards. • Develop steep slopes standard. • Support the National Pollutant Discharge Elimination System general permit. • Develop erosion and sediment control standard. • Develop a vegetation management standard/plan. • Provide streambank and mainstem erosion assessment. • Continue gully erosion repair.	✓ Completion of scheduled activities ✓ Reduction in streambank and ravine bank and slope failures	✓ Positive trends in water quality ✓ Protection and preservation of Minnesota River Bluff	✓ Continued to manage steep slopes through the permit program and projects such as Minnesota River Study Area 3—Bluff Stabilization Project ✓ Continued gully studies to reduce erosion and sediment load to the Minnesota River ✓ Led work at Spring Creek sites in Carver, Minnesota, to address bank erosion

Goal	Strategies	Short-Term Metric	Long-Term Metric	2024 Progress to Goal
	• Promote and encourage shoreland protection. • Develop a shoreline and streambank standard.			
Goal 8: Commercial and Recreational Navigation	• Promote safety education. • Manage existing Cargill East River (MN – 14.2 RMP) dredge material site. • Create a beneficial use plan for dredge materials. • Develop a funding structure to ensure proper maintenance and improvement along the river.	✓ Completion of scheduled activities ✓ Number of targeted studies and projects completed	✓ Secure regular congressional and state legislative funding for the nine-foot channel	✓ Continued to manage dredged material at the Cargill East River site to maintain a nine-foot navigation channel ✓ Explored options for sale of dredged materials
Goal 9: Public Education and Outreach	• Provide public information services. • Provide educational opportunities. • Promote safety education. • Maintain Citizen Advisory Committee. • Develop an outreach program. • Engage volunteers. • Provide opportunity for public input. • Produce scientific studies and work products. • Promote a variety of education programs. • Use multiple outlets to distribute information.	✓ Number and types of sponsored events ✓ Number of participants at events ✓ Number of articles, press releases, and pamphlets developed and printed ✓ Number of volunteers	✓ Same as short-term metrics	✓ Attended local engagement events to promote awareness of the LMRWD ✓ Convened event to tour the Minnesota River ✓ Planned a Public Listening Session for 2025 ✓ Grew the educator mini-grant program ✓ Continued to maintain CAC and recruited new members ✓ Maintained website and social media presence ✓ Led public relations and media outreach ✓ Developed custom signage to share resource information

F. SUMMARY OF SIGNIFICANT TRENDS IN MONITORING DATA

The LMRWD partners continue to monitor data at locations across the watershed. Data are collected on creeks, lakes, and fens.



IMPAIRED WATERS

Several streams, parts of streams, and lakes are listed in the Minnesota Pollution Control Agency's 2024 list of impaired waters. The impairments are being addressed with total maximum daily load plans that are designed to reduce or eliminate the impairments.

Waterbody	Affected Use	Pollutant or Stressor
Rivers		
Minnesota River	• Aquatic recreation, aquatic life, fish consumption	• Sediment, nutrients, fecal coliform, dissolved oxygen, mercury in fish tissue, mercury in the water column, polychlorinated biphenyl (PCB) in fish tissue
Lakes		
Snelling Lake	• Fish consumption	• Mercury in fish tissue
Creeks		
Assumption Creek	• Aquatic life	• Fish bioassessments
Carver Creek	• Aquatic life, aquatic recreation	• Sediment, nutrients, fecal coliform, fish bioassessments, benthic macroinvertebrates bioassessments
East Chaska Creek	• Aquatic life, aquatic recreation	• Sediment, fecal coliform, chloride, fish bioassessments
West Chaska Creek	• Aquatic recreation	• Fecal coliform, benthic macroinvertebrate, and fish bioassessments
Credit River	• Aquatic life, aquatic recreation	• Chloride, E. coli, fish bioassessments
Eagle Creek	• Aquatic recreation	• E. coli
Nine Mile Creek	• Aquatic life, aquatic recreation	• Chloride, E. coli, fish bioassessments, benthic macroinvertebrates bioassessments
Purgatory Creek	• Aquatic life, aquatic recreation	• E. coli, benthic macroinvertebrates bioassessments
Riley Creek	• Aquatic life, aquatic recreation	• Sediment, E. coli, fish bioassessments, benthic macroinvertebrates bioassessments

NOTABLE WATER QUALITY ACCOMPLISHMENTS

In 2024, the LMRWD and partners completed the following activities to continue to protect and improve water quality in the watershed.

Routine monitoring on selected streams, lakes, and fens in the LMRWD shows that no values beyond normal ranges were observed in water quality or groundwater levels.

The LMRWD completed detailed investigations into the impact of tile networks believed to have been installed to drain water from some fens. Field visits produced mixed results; however, evidence of tile was identified in only a few locations, and the flow at those locations was inconclusive. The preliminary findings have resulted in reconsideration of how best to pursue the mitigation of tile drainage and its effect on the fens. Drain tiles are exceedingly difficult to locate after decades of plant growth and tile weathering, and it may be more destructive to disturb the tile drains than to leave them in place.

Efforts to identify and control invasive species encroachment on the fens has gained a sense of urgency as their unwanted impact is becoming clearer. Active removal and sequestering of the invasive Buckthorn and other plants were successful. Monitoring, identifying, and removing invasive species remains a key component of the fen stewardship program. We plan to streamline the identification of hot spots so that removal efforts can be concentrated in those areas.

G. ANNUAL COMMUNICATION

In addition to ongoing communication from the LMRWD to constituents through website updates and public meetings, the annual report serves as a formal communication tool. The annual report provides a snapshot of ongoing projects, goal progress, and day-to-day activities. Please join us in watershed management by visiting our website.

Please join us in watershed management!

- **Find volunteer opportunities on the LMRWD website.**
- **Follow the LMRWD on Facebook, Instagram, and LinkedIn.**

EDUCATION AND OUTREACH

The LMRWD leads a dynamic education and outreach program to work with the community. Here are a few of the tools the LMRWD uses to reach out to stakeholders throughout the year.

Citizen Advisory Committee

The LMRWD maintains an advisory committee of citizen volunteers who participate to raise awareness about the LMRWD while educating themselves and others about a wide range of water and natural resources topics and best practices. The CAC also creates outreach materials and represents the LMRWD at community events such as farmers markets and eco expos.

In 2024, the CAC met monthly with topics and tours that included birding along the Minnesota River; visiting Ike's Creek in Bloomington; and touring CHS, a key commercial partner. In the summer of 2024, the LMRWD and CAC underwent a recruitment process to onboard new members and met in October to do visioning and planning for what to accomplish and focus on in the upcoming year.

Thank you to our wonderful volunteer CAC members!

Are you looking for a meaningful volunteer experience to work collaboratively on resource protection? Apply to participate on the LMRWD Citizen Advisory Committee.

Schools Engagement

The LMRWD continues to provide education and outreach with school-age students by providing a mini-grant program. The program provides up to 10 grants per school year, each up to $500, to help cover the cost of materials and programming that focus on water resources. If you are an educator interested in the grants, learn more on the website.

In 2024, the LMRWD awarded grants to the following recipients:

- Friends of the Mississippi ($500)
- Integrated Arts ($475)
- Minnesota Valley Refuge Friends ($475)
- Prior Lake High School ($500)
- Shakopee Area Catholic School ($500)

Thank you to the invested educators who participated!

Outreach Events

The LMRWD expanded its participation in outreach events, exploring new ways to spread the mission and work of the organization.

Community Tabling Events

The CAC planned and staffed tables at a number of conservation-themed events. CAC members designed the tabling kits to include helpful outreach materials, custom-made art to show native plant roots, and icebreakers.

Minnesota River Barge Tour

The Minnesota River barge tour was an initiative to connect the public and key decision-makers to the river. Taking place on September 10, 2024, guests included elected officials, local government partners, community organizations, business representation, and members of the public. The program consisted of guest speakers and LMRWD managers presenting on the issues and challenges regarding climatology, urban flooding, agricultural flooding and drainage, and water quality.

Speakers (shown in inset, L-R) included the following:

- Kenny Blumenfeld, Minnesota State Climate Office
- Andy Erickson, St. Anthony Falls Laboratory
- Rita Weaver, Minnesota Board of Water and Soil Resources
- Michelle Stockness, Freshwater Society
- Karen Gran, University of Minnesota-Duluth
- Lauren Salvato, LMRWD Board of Managers

2024 Salt Symposium Sponsorship

As part of ongoing efforts to raise awareness about chloride pollution, the LMRWD sponsored the 2024 Salt Symposium. As a Bronze Level Sponsor, the LMRWD helped ensure the event, filled with local and international experts, was successfully executed. To learn more about the Salt Symposium and future events, click here.

Outreach Events (Continued)

Metro Children's Water Festival Sponsorship

The LMRWD continued its support for and participation in the Metro Children's Water Festival, a unique and vibrant event with tailored educational content for fourth-grade students in the Twin Cities. The LMRWD provided our annual sponsorship to engage students with this important education. Learn more about this great event on the organization's website. Photo Credit: Metro Children's Water Festival.

River Watch Program Sponsorship

The LMRWD partnered with Friends of the Minnesota Valley by providing continued funding for the River Watch Program. The program engages students who live in the Minnesota River Basin to maintain data collection equipment and collect water quality samples from areas throughout the river basin. The program achieves a win-win by obtaining more up-to-date monitoring data and inspiring the next generation of science leaders. Learn more about River Watch online. Photo Credit: Friends of the Minnesota Valley.

Scott County Water Education Partnership

The LMRWD supports Scott County as it brings conservation to the classroom within the watershed district. The Scott Soil and Water Conservation District offers educational programming and brings free classroom visits to all schools within the county. Learn more about the program at scottswcd.org/education.

Public Listening Session—Sneak Peek 2025

In response to the major flooding in 2024, the Board of Managers authorized a public listening session to gather science-based information and testimony related to flooding and other concerns within the LMRWD and in upstream and downstream communities. In late 2024, the LMRWD advertised a call for testimony and planned the subsequent event, scheduled for January 8, 2025.

Cost-Share Incentive and Water Quality Restoration Grant Program

The LMRWD provides a program for residents, businesses, neighborhoods, and communities to apply for matching funds for projects intended to improve water quality and provide public education. This program requires a 50 percent match. Projects completed or awarded in 2024 included the following:

In 2024, two applications were received for cost-share grants, both in the City of Carver:

- 1880 Christy Drive, Carver, MN—Rain Garden ($1,392)
- 402 Broadway Street North, Carver MN—Rainwater Capture System ($2,500)

Residents within the LMRWD also have access to technical assistance provided by the Scott Soil and Water Conservation District to implement similar water quality projects on the landscape.

To learn more about cost-share opportunities and apply, visit the LMRWD website. The picture shown below is a 2020 project at Jefferson High School in Bloomington, Minnesota, which is now in full bloom!

H. SOLICITATION FOR CONSULTANT PROPOSALS

In accordance with Minnesota Statute 103B.227 Subd. 5, “a watershed management organization shall at least every two years solicit interest proposals for legal, professional, or technical consultant services before retaining the services of an attorney or consultant or extending an annual services agreement.”

In 2024, the LMRWD released solicitations and hired consultants for the following:

- Education and outreach coordinator
- Primary engineering and technical consultant
- Engineering pool
- Legal advisor
- Legislative advisor
- District administrator*

*Announced in 2024, to be completed in 2025

Consultant opportunities are advertised at https://lowermnriverwd.org/news/requests-proposals.

I. LOCAL WATER PLAN APPROVAL

2015

MSP & FLYING CLOUD AIRPORTS
In May 2015, both airports revised their stormwater pollution prevention plans (SWPPPs).

2017

BURNSVILLE
In November 2017, Burnsville adopted its Local Surface Water Management Plan.

2018

CHANHASSEN
In January 2018, Chanhassen adopted its Local Surface Water Management Plan.

BLOOMINGTON
In June 2018, Bloomington adopted its Local Surface Water Management Plan.

MENDOTA HEIGHTS
In July 2018, Mendota Heights adopted its Local Surface Water Management Plan.

CARVER
In December 2018, Carver adopted its Local Surface Water Management Plan.

2019

EAGAN
In January 2019, Eagan adopted its Local Surface Water Management Plan.

SHAKOPEE
In November 2019, Shakopee adopted its Local Surface Water Management Plan.

2020

EDEN PRAIRIE
In December 2020, Eden Prairie adopted its Local Surface Water Management Plan.

2023

CHASKA
In 2023, Chaska updated its Local Surface Water Management Plan.

LILYDALE
In 2023, Lilydale updated its Local Surface Water Management Plan.

2024

METROPOLITAN AIRPORTS COMMISSION
In 2024, Metropolitan Airports Commission updated their standards.

The timeline to the left shows local water plan adoption over the past decade of water management and collaboration.

J. STATUS OF LOCALLY ADOPTED ORDINANCES

The LMRWD first adopted rules in 2020, which were amended in October 2022. Local governments that wish to obtain a municipal permit must highlight how they intend to implement and enforce rules through official controls (i.e., ordinances). In 2023, municipal permits were approved for seven LGUs within the LMRWD.

In 2024, the LMRWD adopted the City of Chaska's updated Local Surface Water Management Plan. The Metropolitan Airports Commission (MAC) also formally adopted "Section 01 89 30," "Sediment and Erosion Control Inspection Form (Terracon)," and "Recommended Approach for LMRWD Rule D Compliance with MAC as LGU" into its 2024 MAC Design & Construction Standards. LGU Permits were issued to the City of Chaska and the MAC on February 21, 2024, and December 23, 2024, respectively. The MAC LGU permit was later revised and reissued on January 15, 2025.

Municipal permit holders are shown below, with ongoing coordination planned for 2025 with communities not listed. We appreciate collaborating with our local partners to strengthen our watershed's protection of natural resources. Municipalities have the option to opt out of an LGU permit if they would like the LMRWD to continue leading the permitting. Eden Prairie has made the determination that it does not want permit authority.

Date	City	Ordinance	Status
2020	City of Eagan	Municipal LGU Permit	Approved
2020	City of Mendota Heights	Municipal LGU Permit	Approved
2020	City of Bloomington	Municipal LGU Permit	Approved, does not include permitting authority for Rule C—Floodplain and Drainage Alteration
2021	City of Carver	Municipal LGU Permit	Approved, does not include permitting authority for Rule C—Floodplain and Drainage Alteration
2021	City of Shakopee	Municipal LGU Permit	Approved, does not include permitting authority for Rule C—Floodplain and Drainage Alteration
2022–2023	City of Burnsville	Municipal LGU Permit	Conditionally Approved (2022), Approved, does not include permitting authority for Rule C—Floodplain and Drainage Alteration (2023)
2023	City of Lilydale	Municipal LGU Permit	Approved
2024	City of Chaska	Municipal LGU Permit	Approved, does not include permitting authority within the HVRA, or for Rule C—Floodplain and Drainage Alteration, and Rule F—Steep Slopes
2024	Metropolitan Airports Commission	Municipal LGU Permit	Approved, does not include permitting authority for Rule C—Floodplain and Drainage Alteration, and Rule F—Steep Slopes

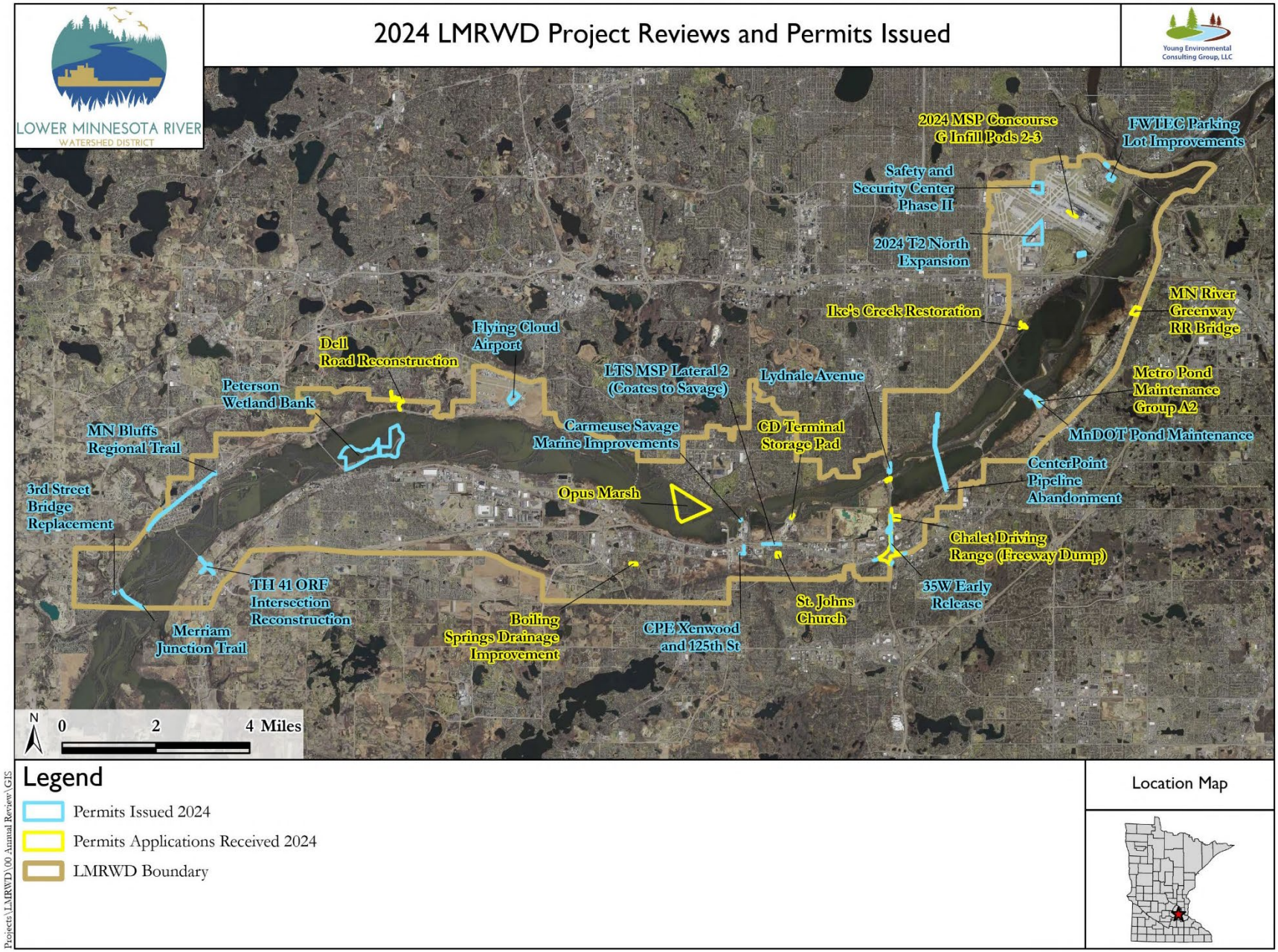
K. SUMMARY OF PERMITS/VARIANCES

The LMRWD continues to oversee a permitting program to ensure that new development in the community complies with watershed district rules. In 2024, the LMRWD Board of Managers implemented changes to increase efficiencies and better reflect the actual costs of the permitting program.

The LMRWD established a permit application fee schedule in 2020 when the rules were first adopted. Permit application fees encourage responsible management of water and natural resources and compliance with LMRWD rules. Since 2024, the LMRWD noted that the cost to review permits has been greater than applicant fees collected. In July 2024, the Board of Managers began implementing a new fee schedule to better align with the costs truly incurred by the review process.

An updated permitting fee schedule was implemented in September and can be found on the LMRWD website.

The following permits were issued in 2024:



LOWER MINNESOTA RIVER
WATERSHED DISTRICT

lowermnriverwd.org