



Board of Managers Meeting Agenda

Wednesday – May 14th, 2025 - 3:00 p.m.

**Fleming Field, South St. Paul Airport
1725 Henry Ave, South St Paul, MN 55075**

1. Call Meeting to Order
 - 1.1 Identification of Voting Board Members
 - 1.2 Approval of Agenda* (Additions/Corrections/Deletions) Action
 - 1.3 Opportunity for Public Comment (Limited to 2 minutes per person)
2. Approve March 12th, 2025 Meeting Minutes - Chair* Action
3. Approve May 14th, 2025 Financial Summary & Invoice Payment - Treasurer* Action
4. Grant and Project Status Update - SWCD* ** Information
5. Authorize Solicitation of Consultants for Combined Watershed Modeling - SWCD* Action
6. Other Updates
 - 6.1 3M Grant Submission** Information
 - 6.2 Winter Salt Week Summary* Information
 - 6.3 Mendota Development Follow-up Information
 - 6.4 2024 Audit Information
 - 6.5 Grant Tracking Spreadsheet* Information
7. Member City Updates
8. Adjourn - Next Meeting held on June 11th, 2025 – Lilydale City Hall

* Materials included in full packet

** Materials available separately on website

<https://LMRWMO.org/about-us/meeting-information/>



Board of Managers Meeting Minutes

Wednesday - March 12th, 2025 - 3:00 p.m.
West St. Paul City Hall

Managers and Alternates in Attendance:

Karen Reid (Vice-Chair), Saint Paul
Leslie Pilgrim, Mendota Heights
Brian Jastram, Saint Paul
Mary Kleinberg, Lilydale
Daniel Anderson, South St. Paul

Dawn Gaetke, Inver Grove Heights
Analiese Miller, West St. Paul
Tom Sutton, Lilydale
Dan Halvorsen, Sunfish Lake

Advisors and Others in Attendance:

Ryan Ruzek, Mendota Heights
Pat Murphy, Saint Paul
Greg Williams, Barr Engineering
Joe Barten, Dakota County SWCD

Cody Joos, West St. Paul
Chris English, Inver Grove Heights
Greg Genz, Friends of Pool 2

1. Call Meeting to Order

1.1 Public Comment / Introductions

Audience members may address the Board regarding items not on the agenda.

1.2 Approval of Agenda* (Additions/Corrections/Deletions)

Motion by Reid to approve the agenda with the addition of financial items discussion by the WMO Administrator added as agenda item #4, second by Sutton; motion passed.

2. Approve February 12th, 2025 Meeting Minutes

Motion by Halvorsen to approve the previous meeting minutes, second by Pilgrim; motion passed.

3. Approve March 12th, 2025 Financial Summary & Invoices

Ruzek provided a summary of the finances.

Motion by Gaetke to approve the financial summary, second by Miller; motion passed.

4. Finances Discussion

Barten noted that since the previous Board meeting and at the direction of the Board, he met with Steve Gebauer, Leslie Pilgrim, and Nancy Bauer from the City Mendota Heights to discuss financial processes for the WMO. The outcome of that meeting is for the WMO to transition to having the Board Treasurer mail checks after meetings, to include bank statements in meeting packets, and to authorize the WMO

Secretary/Treasurer and SWCD Finance and Grants Coordinator to have read-only access to WMO Bank statements.

Motion by Anderson to accept the proposed financial process changes, including having the Board Treasurer mail checks after meetings, include bank statements in meeting packets, and authorize the WMO Secretary/Treasurer and SWCD Finance and Grants Coordinator to have read-only access to WMO Bank statements, second by Halvorsen; motion passed.

5. Authorize Funding for Development and Submittal of 3M Grant Letters of Intent

Barten summarized this potential grant opportunity and the information in the packet. He requested authorization to engage staff from Barr Engineering and Jacobs Engineering to assist in the creation of two letters of intent for the MN DNR 3M grant, information included in packet, for water quality improvement projects at Thompson Lake and Seidls Lake and for additional contaminant monitoring funds.

Motion by Halvorsen to authorize the Administrator to engage Barr and Jacobs staff to draft grant letters of intent for the 3M grant in an amount not to exceed \$5,000 and for the Administrator to submit the letter of intent to the DNR for the grants, second by Pilgrim; motion passed.

6. Authorize Submittal of Funding Request & Execution of Grant Agreement for FY-25 WBIF Grant

Barten summarized the Watershed Based Implementation Funding (WBIF) process for the fiscal year 2025 funds for the LMRWMO planning area convene group and noted that the convene group agreed upon the projects shown in the packet, which include a study of Ivy Falls Creek led by the LMRWMO.

Motion by Miller to approve submittal of the WBIF funding request to BWSR for a study of Ivy Falls Creek and it's watershed and to authorize the Board Chair to execute a grant agreement for that Ivy Falls Study using FY-25 WBIF funds upon approval of the funding request and work plan by MN Board of Water Resources (BWSR) , second by Pilgrim; motion passed.

7. Approve 2025 Water Monitoring Plan

Barten summarized the information in the packet. Ruzek requested that Pagel Pond be added to the list of lakes for monitoring in 2025.

Motion by Halvorsen to approve the list of lakes and streams in the meeting packet for potential monitoring, with the addition of Pagel Pond in Mendota Heights, the installation of a lake gauge at Lake Augusta, and two events of chloride monitoring at Thompson Lake and Horseshoe Lake each, second by Pilgrim; motion passed.

8. Member City Updates

Advisors and Members provided updates on relevant projects in their Cities.

9. Adjournment & Next Meeting

Meeting adjourned at 4:25. The next Board meeting is scheduled for April 9th, 2025 at Fleming Field in South St. Paul.

3.0 Financial Summary



FINANCIAL SUMMARY March 12, 2025 to May 14, 2025

<u>Beginning Balance - Gateway Bank Checking Account:</u>	\$15,144.52
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Deposits

Deposit	5/7/2025	State of MN - Final payment for (WBIF) FY-21 Grant C21-3381 for the Mississippi River Direct Drainage Study	+	\$43,893.50
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Payments

5029	5/14/2025	Barr Engineering	-	\$6,200.50
5030	5/14/2025	Dakota County Soil & Water Conservation District	-	\$25,720.00
			-	
			-	

<i>Checking Ending Balance</i>	\$27,117.52
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Beginning Balance - Gateway Bank Savings Account:

				\$115,373.40
<i>Dep</i>	3/31/2025	March 2025 Interest	+	\$249.87
	4/30/2025	April 2025 Interest		\$242.34

<i>Savings Ending Balance</i>	<u>\$115,865.61</u>
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<i>Available Total Balance at Gateway Bank</i>	<u>\$142,983.13</u>
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LMRWMO 2025 Budget & Financial Summary		2024 Carryover	2025 Monthly Revenue					
Revenue	Budget	Dec 12, 2024 - Jan 8 2025	Jan 9 - Feb 12 2025	Feb 13 - Mar 12 2025	Mar 13 - May 8 2025	2025 Total	Variance	Percent Received
Dues from Members	\$153,725.00					\$0.00	\$153,725.00	0%
Interest & LMCIT Rebate	\$3,000.00	\$326.70	\$490.14	\$236.75	\$492.21	\$1,545.80	\$1,454.20	52%
Grant Revenue	\$440,000.00				\$43,893.50	\$43,893.50	\$396,106.50	10%
Subtotal Operating Revenue	\$156,725.00	\$326.70	\$490.14	\$236.75	\$44,385.71	\$45,439.30		
		2024 Carryover	2025 Monthly Revenue					
Expenses	Budget	Dec 12, 2024 - Jan 8 2025	Jan 9 - Feb 12 2025	Feb 13 - Mar 12 2025	Mar 13 - May 8 2025	2024 Total	Remaining Budget	Percent Expended
Engineering/Technical Assistance								
Meetings	\$7,000.00	\$621.80	\$1,189.80		\$2,400.50	\$3,590.30	\$3,409.70	51%
Technical Assistance ²	\$6,500.00	\$2,153.50	\$227.50		\$3,800.00	\$4,027.50	\$2,472.50	62%
Plan Implementation / Project Mgmt.	\$5,000.00		\$997.50			\$997.50	\$4,002.50	20%
Grant Development / Review	\$3,000.00					\$0.00	\$3,000.00	0%
Biennial Progress Review	\$2,000.00					\$0.00	\$2,000.00	0%
Watershed Plan Amendment	\$1,000.00					\$0.00	\$1,000.00	
Project Study/Implementation								
Miss. River Direct Drainage - FY-21 WBIF Match	\$9,304.00	\$552.00	\$5,394.75			\$5,394.75	\$3,909.25	58%
Interstate Valley Creek Stabilization (FY-24 SWCD CWF Match)	\$10,000.00				\$4,266.50	\$4,266.50	\$5,733.50	43%
Priority Watershed Modeling - \$100,000 (FY-23 WBIF Match)	\$12,000.00					\$0.00	\$12,000.00	0%
Seidis Lake Improvements - \$356,000 (FY-22 CPL % Match)	\$2,500.00					\$0.00	\$2,500.00	0%
Landscaping for Clean Water Projects	\$14,000.00		\$850.00			\$850.00	\$13,150.00	6%
Monitoring								
Lake and Stream Water Monitoring (CAMP) and Reports	\$14,000.00	\$2,660.00	\$2,421.89		\$2,016.50	\$4,438.39	\$9,561.61	32%
Education								
WMO Biannual E-Newsletter	\$3,200.00					\$0.00	\$3,200.00	0%
Board Tour of Projects	\$1,000.00					\$0.00	\$1,000.00	0%
Water Resources Videos Partnership Campaign	\$7,500.00					\$0.00	\$7,500.00	0%
Landscaping for Clean Water Classes	\$9,500.00					\$0.00	\$9,500.00	0%
MN Water Stewards Support	\$3,000.00					\$0.00	\$3,000.00	0%
Storm Drain Stenciling Program	\$5,000.00				\$50.00	\$50.00	\$4,950.00	1%
Engage Residents at Public Events / WMO Tabling	\$500.00				\$300.00	\$300.00	\$200.00	60%
General Education Requests & Materials	\$1,500.00		\$665.00		\$150.00	\$815.00	\$685.00	54%
Metro Watershed Partners Membership & Welcome Kits	\$1,000.00	\$1,000.00	\$891.00			\$891.00	\$109.00	89%
Website Maintenance and Updates	\$3,000.00		\$547.50		\$1,550.00	\$2,097.50	\$902.50	70%
Board Education	\$500.00					\$0.00	\$500.00	0%
						\$0.00	\$0.00	
Administration								
General Administration	\$36,000.00		\$6,842.50		\$16,400.00	\$23,242.50	\$12,757.50	65%
Hold Annual TAC Meeting	\$1,000.00					\$0.00	\$1,000.00	0%
Insurance	\$2,500.00					\$0.00	\$2,500.00	0%
Attorney and Audit	\$5,800.00					\$0.00	\$5,800.00	0%
Subtotal Operating Expenses	\$167,304.00	\$6,987.30	\$20,027.44	\$0.00	\$30,933.50	\$50,960.94	\$116,343.06	30%
Grant Expenses	\$400,000.00	\$0.00	\$9,774.00	\$0.00	\$987.00	\$10,761.00	\$389,239.00	3%
Overall Fund Balance		\$159,592.47	\$130,281.17	\$130,517.92	\$142,983.13			
Total Grant Balance		\$10,911.00	\$1,137.00	\$1,137.00	\$150.00			
Operating Fund Balance		\$148,681.47	\$129,144.17	\$129,380.92	\$142,833.13			
Unencumbered Operating Fund Balance¹		\$123,681.47	\$99,144.17	\$99,380.92	\$112,833.13			

2025 Budget Notes:

- \$30,000 set aside for 2033 Watershed Plan Update, \$10,000 additional annually encumbered.
- Includes additional time to develop modeling standards and goal tracking.

General: Budget is an estimate and will vary depending on changing priorities and grant project progress.

Balances Explained:

Overall Fund Balance
Total Grant Balance
Operating Fund Balance
Unencumbered Operating Fund Balance

LMRWMO 2025 Grant Budget & Financial Summary											
	Budget	Aggregate Prior to Jan 12, 2022	Jan 13, 2022 - Jan 11, 2023	Jan 12 2023 - Jan 10 2024	Jan 11, 2024 - Jan 8 2025	Jan 9 - Feb 12 2025	Feb 13 - Mar 12 2025	Mar 13 - May 8 2025	Total	Variance	Percent Received/ Expended
BWSR - FY 2021 Watershed Based Implementation Funding (Miss. River Direct Drainage Study)											
Revenue											
BWSR FY-2021 WBIF Payment	\$93,042.00	\$46,521.00						\$43,983.50	\$90,504.50	\$2,537.50	97%
WBIF Matching Funds	\$9,304.00				\$3,647.25	\$5,394.75			\$9,042.00	\$262.00	97%
Total Revenue	\$102,346.00	\$46,521.00	\$0.00	\$0.00	\$3,647.25	\$5,394.75	\$0.00	\$43,983.50	\$99,546.50	\$2,799.50	97%
Expenses											
Grant Administration	\$10,042.00			\$156.00	\$3,424.50	\$696.00			\$4,276.50	\$5,765.50	43%
Erosion & Direct Drainage Study	\$71,000.00				\$71,000.00	\$247.00			\$71,247.00	(\$247.00)	100%
Erosion & Direct Drainage Study Match (WMO)	\$9,304.00				\$3,647.25	\$5,394.75			\$9,042.00	\$262.00	97%
Project Development	\$12,000.00			\$2,733.50	\$5,067.00	\$7,090.50			\$14,891.00	(\$2,891.00)	124%
Total Expenses	\$102,346.00	\$0.00	\$0.00	\$2,889.50	\$83,138.75	\$13,428.25	\$0.00	\$0.00	\$99,456.50	\$2,889.50	97%
FY-21 WBIF Balance		\$46,521.00	\$46,521.00	\$43,631.50	-\$35,860.00	-\$43,893.50	-\$43,893.50	\$90.00	\$90.00		
BWSR - FY 2023 Watershed Based Implementation Funding (Priority Watershed Project ID & Model - Thompson, Rogers, Seidls)											
Revenue											
BWSR FY-2021 WBIF Payment	\$118,385.00			\$59,193.00					\$59,193.00	\$59,192.00	50%
WBIF Matching Funds	\$12,000.00								\$0.00	\$12,000.00	0%
Total Revenue	\$130,385.00	\$0.00	\$0.00	\$59,193.00	\$0.00	\$0.00	\$0.00	\$0.00	\$59,193.00	\$71,192.00	45%
Expenses											
Grant Administration	\$8,000.00				\$769.50			\$517.00	\$1,286.50	\$6,713.50	16%
Priority Watershed Project ID & Model	\$100,385.00								\$0.00	\$100,385.00	0%
Priority Watershed Project ID & Model Match (WMO)	\$10,000.00								\$0.00	\$10,000.00	0%
Project Development	\$12,000.00				\$1,491.00				\$1,491.00	\$10,509.00	12%
Total Expenses	\$130,385.00	\$0.00	\$0.00	\$0.00	\$2,260.50	\$0.00	\$0.00	\$517.00	\$2,777.50	\$127,607.50	2%
FY-21 WBIF Balance		\$0.00	\$0.00	\$59,193.00	\$56,932.50	\$56,932.50	\$56,932.50	\$56,415.50	\$56,415.50		
MN DNR - Conservation Partners Legacy Grant (Seidls Lake Shoreline Restoration)											
Revenue											
Grant Reimbursement Payments	\$382,000.00				\$70,192.78				\$70,192.78	\$311,807.22	18%
Matching funds	\$75,000.00								\$0.00	\$75,000.00	0%
Total Revenue	\$457,000.00	\$0.00	\$0.00	\$0.00	\$70,192.78	\$0.00	\$0.00	\$0.00	\$70,192.78	\$386,807.22	15%
Expenses											
Grant Administration/Project Mgmt	\$26,000.00			\$15,118.00	\$6,171.50	\$1,740.50		\$470.00	\$23,500.00	\$2,500.00	90%
Construction	\$356,000.00				\$27,486.03				\$27,486.03	\$328,513.97	8%
Engineering - Construction Docs	\$37,500.00				\$31,578.75				\$31,578.75	\$5,921.25	84%
Engineering - Const. Mgmt, Permits, Bids	\$37,500.00										
Total Expenses	\$457,000.00	\$0.00	\$0.00	\$15,118.00	\$65,236.28	\$1,740.50	\$0.00	\$470.00	\$82,564.78	\$336,935.22	18%
Seidls Lake Shoreline Balance		\$0.00	\$0.00	-\$15,118.00	-\$10,161.50	-\$11,902.00	-\$11,902.00	-\$12,372.00	-\$12,372.00		
	Budget	Aggregate Prior to Jan 12, 2022	Jan 13, 2022 - Jan 11, 2023	Jan 12 2023 - Jan 10 2024	Jan 9, 2025 - Feb 12 2025	Jan 9 - Feb 12 2025	Feb 13 - Mar 12 2025	Mar 13 - May 8 2025	Total	Variance	Percent Received/ Expended
TOTAL GRANT FUNDS RECEIVED	\$559,346.00	\$46,521.00	\$0.00	\$59,193.00	\$70,192.78	\$0.00	\$0.00	\$43,983.50	\$219,890.28	\$389,606.72	39%
PASS THROUGH MATCH RECEIVED	\$75,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$75,262.00	0%
LMRWMO MATCH PROVIDED	\$9,304.00	\$0.00	\$0.00	\$0.00	\$3,647.25	\$5,394.75	\$0.00	\$0.00	\$9,042.00	\$389,606.72	97%
GRANT EXPENSES (MINUS WMO MATCH)	\$550,042.00	\$0.00	\$0.00	\$18,007.50	\$146,988.28	\$9,774.00	\$0.00	\$987.00	\$175,756.78	\$457,170.22	32%
PASS THROUGH MATCH EXPENSES	\$75,000.00	\$0.00	\$0.00	\$0.00	\$31,578.75	\$0.00	\$0.00	\$0.00	\$40,620.75	\$34,379.25	54%
NET FUND BALANCE (MINUS WMO MATCH)		\$46,521.00	\$46,521.00	\$87,706.50	\$10,911.00	\$1,137.00	\$1,137.00	\$44,133.50			



MEMORANDUM

To: LMRWMO Board of Managers
From: Joe Barten, Dakota County SWCD
Subject: LMRWMO Grant and Project Update
Date: May 9, 2025

SUMMARY

The LMRWMO has received multiple grants from the Board of Water and Soil Resources (BWSR) via the State Clean Water Fund and Metro Watershed Based Implementation Fund (WBIF) as well as the Metropolitan Council and MN Department of Natural Resources. Nearly all projects have been implemented in partnership with Member Cities and with matching funds from Member Cities. The following is a summary of active grants held by the LMRWMO, upcoming opportunities, and the grant/project status. Also included is a summary of recently completed grants and projects.

IN PROGRESS GRANTS AND PROJECTS

FY-2022 MN DNR Conservation Partners Legacy Grant – Seidls Lake Shoreline Restoration

The LMRWMO was awarded \$382,000 in grant funds for restoration of vegetation surrounding Seidls Lake in Inver Grove Heights and South St. Paul. The project is being done in close partnership with the two Cities, who are providing matching funding, and in tandem with a trail reconstruction project. Tree clearing occurred in early 2024, the contractor has completed the trail work and some adjacent slope stabilization on the East side of Seidls Lake, the majority of stabilization efforts along the shoreline, and clearing of all the fallen trees and debris. The remaining lake vegetation restoration work will occur May and the grant closes out at the end of June 2025.

FY-2023 BWSR Metro Watershed Based Implementation Funding (WBIF)

The LMRWMO was awarded \$118,385 in grant funds to develop a water quality, hydrologic, and hydraulic model of priority watersheds. The modeling extent includes the watersheds of priority level 1A lakes (Thompson Lake, Rogers Lake, Seidls Lake). The modeling will identify pollutant loading hotspots, areas with insufficient or no treatment, and identify and prioritize regional treatment opportunities. Created from this information is a priority project list and feasibility analysis for each priority level 1A lake watershed, prioritizing projects that include water quality, volume reduction, and that also address flood risk. We plan to combine this work with the recently received FY-25 Accelerated Implementation Grant (noted in separate Board memo for May 2025 meeting) and the majority of work will occur in 2025 and 2026. The LMRWMO will request a one-year grant extension from BWSR for this grant.

FY-25 Accelerated Implementation Grant (AIG) for Water Quality Modeling of Lower Mississippi River WMO Priority Watersheds

The LMRWMO was awarded a grant for \$98,000 for the development and documentation of water quality models (using P8 or a GIS-based model) covering the watersheds tributary to Priority 1A and Priority 1B lakes and creeks in the LMRWMO. These include the watersheds tributary to priority waterbodies in the LMRWMO. The water quality modeling will quantify estimated sediment and nutrient loading from the watershed and treatment achieved by existing best management practices. The study will identify pollutant loading "hot spots" on the landscape where future treatment maybe focused. The LMRWMO will use land use, land cover, and BMP information available during model development to semi-quantitatively assess chloride loading in the modeled watersheds. From the modeling results, the LMRWMO will characterize and prioritize treatment needs throughout the modeled watersheds. We plan to combine this work with the recently received FY-23 WBIF grant (noted in separate memo for May 2025 meeting).

FY-23 BWSR Projects and Practices - Interstate Valley Creek Stabilization and Volume Reduction Project

The Dakota County SWCD applied for and received \$585,000 in State Clean Water funding in partnership with Mendota Heights, Dakota County, and the LMRWMO implement the 3 top ranked stormwater management projects and the 3 top ranked streambank stabilization projects identified in the Interstate Valley Creek Stabilization and Volume Reduction study. The LMRWMO has committed to provide \$10,000 in matching funds towards the project. The project is nearing completion with the majority of work occurring in winter and spring of 2025. The Administrator will provide a presentation to the Board on outcomes of the project later in 2025.

FY-2025 BWSR Metro Watershed Based Implementation Funding

LMRWMO staff will work with local partners, including two Member City representatives, staff from Dakota and Ramsey Counties, and the Dakota County SWCD to determine the preferred use of \$208,410 in state grant funding which has been allocated to the Lower Mississippi River Watershed Planning Area. The first convene meeting is expected to occur in late 2024 to determine how to utilize these funds. The LMRWMO has had initial discussions with Dakota County and City of West St. Paul staff to see if stormwater practices installed along Butler Avenue to benefit Thompson Lake could be a good fit for this funding source. Preliminary design is nearly complete and discussions on maintenance responsibility of future stormwater practices currently underway to determine the likelihood of seeking funding for Butler Ave. stormwater practices using FY-2025 WBIF funds.

FUTURE GRANTS/PROJECTS

3-M Settlement Priority 2 Grant

The LMRWMO submitted two letters of intent for this one-time grant program. The two letters of intent (preliminary grant applications) are for the following potential projects. Letters were submitted in early April 2025 with notification of approval to apply for the full grant in the summer of 2025.

Monitoring of Fish Tissue for Contaminants of Emerging Concern on Priority Waterbodies

Description: This would be paired with funding already committed by LMRWMO Member Cities to go towards sampling and testing of fish tissues in LMRWMO waterbodies for emerging contaminants of concern. Grant Request: \$65,000

Improve Water Quality & Habitat of Thompson & Seidls Lake via Aeration & Geochemical Augmentation

Evaluation and implementation of appropriate geochemical augmentation via alum treatments, alum microdosing, and aeration for lake water quality improvement at and fish habitat improvement Seidls Lake and Thompson Lake. The lakes have both had significant watershed improvements and investment over the last 15 years and the logical next step to meet water quality goals is looking within the lakes themselves. The 3M grant dollars would provide funds for the more significant up-front costs with long term operation by local entities. Grant Request: \$1,491,000

RECENTLY COMPLETED LMRWMO GRANTS/PROJECTS

FY-2021 BWSR Metro Watershed Based Implementation Funding

The LMRWMO was awarded \$93,042 in grant funds for the study of direct drainage watersheds to the Mississippi River within the LMRWMO to create a comprehensive and ranked water quality improvement project list for future implementation. This grant required a 10% cash match from the LMRWMO. The study focused on both erosion issues as well as stormwater management projects. Proposals for the direct drainage were sought and WSB was selected to perform the work. WSB has completed the final report in December 2024 and the grant was closed out in early 2025.

FY-2019 BWSR Metro Watershed Based Implementation Funding

The LMRWMO was awarded \$144,670 in grant funds for the creation of multiple education programs and materials (stenciling program, multi-lingual educational material regarding chloride, pesticides, herbicides, and fertilizer application, impaired waters). Funds are also available for a feasibility study to identify activities to improve the water quality of Lake Augusta and a feasibility study of Interstate Valley Creek to identify areas of streambank protection, weir replacement, and identification of BMPs for pollutant and volume reduction in watershed. See below for more details on those completed projects.

Lake Augusta Feasibility Study

Barr Engineering was contracted to perform lake and rain runoff monitoring, GIS base-mapping, and stormwater modeling to identify lake management and stormwater management solutions to poor water quality in Lake Augusta. The final report will be used to implement future projects in 2026-2027.

Interstate Valley Creek Stabilization and Volume Reduction Feasibility Study

The LMRWMO contracted with WSB to complete the Interstate Valley Creek study due to severe bank erosion. All reaches of the stream were assessed and classified for amounts of erosion. Stabilization measures with cost and pollutant reductions attached to different areas were ranked and prioritized. The final study was used by the Dakota SWCD to receive a \$585,000 State Clean Water Fund grant to implement the 3 top ranked stormwater management projects and the the 3 top ranked streambank stabilization projects in partnership with the LMRWMO, City of Mendota Heights, and Dakota County.

FY-2018 Clean Water Fund Grant - Cherokee Heights Stormwater Mgmt. and Ravine Stabilization

The LMRWMO was awarded \$700,000 in grant funds to stabilize the approximately 300 feet long Upper Cherokee Heights Ravine, which is downstream of a 60-inch culvert under Cherokee Heights Boulevard. The project was in partnership with the City of St. Paul and included the installation of two underground stormwater treatment devices to improve the quality of incoming stormwater and used rock riprap and bioengineered techniques to stabilize the channel. The grant was closed out in March of 2021.

2017 Metropolitan Council Stormwater Grant - Seidl's Lake Water Quality Improvement Project

The LMRWMO was awarded \$150,000 in grant funds for the installation of an underground tree trench stormwater management system, in partnership with the City of South St. Paul, to intercept and infiltrate stormwater prior to it entering Seidl's Lake. Construction of the project was completed in 2019. Grant reporting was submitted to the Met Council in late 2019 and the grant was closed out with a \$150,000 reimbursement to the City for project costs.

FY-2016 BWSR Clean Water Fund Grant - Sunfish Lake and Lake Augusta Aluminum Sulfate Treatments

The LMRWMO was awarded \$196,000 in grant funds for the implementation of two aluminum sulfate treatments on Sunfish Lake and Lake Augusta, in partnership with the City of Mendota Heights and Sunfish Lake residents, to reduce phosphorus levels in the lakes. The majority of work was completed in 2017 for this grant with additional follow-up information provided to BWSR in 2019 and 2020. Final grant reporting and closeout was completed in 2020 with a final reimbursement from BWSR in October 2020.

FY-2016 BWSR Clean Water Fund Grant - Thompson Lake Stormwater Improvements

The LMRWMO was awarded \$576,000 in grant funds for the construction of underground stormwater treatment devices, a stormwater pond forebay, a treatment wetland, and a stormwater reuse system to reduce pollutants entering Thompson Lake in West St. Paul. The project was implemented in conjunction with Dakota County and The City of West St. Paul. Construction began in late 2018 with stormwater BMP construction in 2019. Follow-up punch list repairs were completed in 2020. The grant was closed out in March of 2021.

2016 Metropolitan Council Stormwater Grant - Lilydale SAFL Baffle Installation

The LMRWMO was awarded \$9,000 in grant funds for the installation of a SAFL Baffle and educational sign in Lilydale as part of the Hwy. 13 reconstruction project. The SAFL Baffle and signage were installed and the grant was closed out in 2020.

Board Action Requested: None, information only.

5. Solicitation of Consultants -Watershed Modeling



MEMORANDUM

To: LMRWMO Board of Managers
From: Joe Barten, Dakota County SWCD
Subject: Authorize Solicitation of Proposals for Watershed Modeling
Date: May 9, 2025

SUMMARY

The Lower Mississippi River Watershed Management Organization and its member cities seek to develop comprehensive watershed hydrologic, hydrologic, and water quality modeling to identify and prioritize water quality improvement practices to maximize pollutant reduction benefits, identify pollutant hot spots, identify flooding issues, and help in planning. Current modeling is inconsistent, outdated, and among various modeling programs.

The LMRWMO has received funding via two separate grants related to both hydraulic and hydrologic, and water quality modeling. Attached is the application for the FY-25 Accelerated implementation Grant (AIG) and the work plan for the FY-23 Watershed Based Implementation (WBIF) grant, for reference.

Additionally, the City of Inver Grove Heights has recently initiated watershed modeling for their entire City. To ensure consistency across the current Inver Grove Heights and upcoming LMRWMO modeling efforts, and also to potentially realize some cost savings for the City project with overlapping efforts, the LMRWMO will utilize the same requirements used by the City for the modeling. Attached is the recent City of Inver Grove Heights scope of work for watershed modeling, for reference.

TWO ACTIVE MODELING GRANTS

FY-2023 BWSR Metro Watershed Based Implementation Funding

The LMRWMO was awarded \$118,385 in grant funds to develop a water quality, hydrologic, and hydraulic model of priority watersheds. The modeling extent includes the watersheds of priority level 1A lakes (Thompson Lake, Rogers Lake, Seidls Lake). The modeling will identify pollutant loading hotspots, areas with insufficient or no treatment, and identify and prioritize regional treatment opportunities. Created from this information is a priority project list and feasibility analysis for each priority level 1A lake watershed, prioritizing projects that include water quality, volume reduction, and that also address flood risk. We plan to combine this work with the recently received FY-25 Accelerated Implementation grant (noted in separate memo for May 2025 meeting) and the majority of work will occur in 2025 and 2026. The LMRWMO will request a one-year grant extension from BWSR for this grant.

FY-25 Accelerated Implementation Grant for Water Quality Modeling of Lower Mississippi River WMO Priority Watersheds

The LMRWMO was awarded a grant for \$98,000 for the development and documentation of water quality models (using P8 or a GIS-based model) covering the watersheds tributary to Priority 1A and Priority 1B lakes and creeks in the LMRWMO. These include the watersheds tributary to priority waterbodies in the LMRWMO. The water quality modeling will quantify estimated sediment and nutrient loading from the watershed and treatment achieved by existing best management practices. The study will identify pollutant loading "hot spots" on the landscape where future treatment maybe focused. The LMRWMO will use land use, land cover, and BMP information available during model development to semi-quantitatively assess chloride loading in the modeled watersheds. From the modeling results, the LMRWMO will characterize and prioritize treatment needs throughout the modeled watersheds. This grant has been approved and a work plan and grant execution is currently underway.

COMBINED MODELING EFFORT

In order to provide a more consistent, cost effective, efficient, and useful end product, the Administrator recommends combining these two grant projects into one joint request for proposals. The Administrator will consult with City Engineering staff to finalize the request for proposals to mirror the City of Inver Grove Heights requirements over the next month, and then sent out to three qualified consultants to perform the work.

BOARD ACTION REQUESTED:

Authorize the Administrator to finalize a scope of work and proposal requirements with City partners, which combines the FY-2023 WBIF and FY-25 Accelerated Implementation Grant funds for a joint modeling project, and solicit proposals from three qualified consultants.

Proposals will then be ranked by a group of volunteer reviewers who will provide a recommendation for consideration by the full LRMWMO Board to engage with for the work.

ATTACHED:

2025 Inver Grove Heights Watershed Modeling Scope

FY-25 AIG Grant Application (posted separately)

FY-23 WBIF Grant Work Plan (posted separately)

Exhibit A: Scope of Work

10. Project Overview

10.1. General Statement of Scope of Work

10.1.1. The delivery of this contract will include the updating of the City's fourth generation Water Resources Management Plan (WRMP) which was approved in December 2018. As part of the WRMP's updates, the Contractor will:

- a. Create a city wide SWMM model and provide a user manual for its upkeep/maintenance by City and/or City consultant staff.
- b. Update all figures from previous WRMP documents
- c. Identify stormwater risk areas within the City
- d. Update current Goals and Policies to provide a uniform, citywide plan for water resource management.

10.2. Project Deliverables

10.2.1. As part of the final project deliverables, the Contractor will provide electronic copies of all documents and source information produced during the preparation of the project.

10.2.2. The Contractor will:

- a. Provide PDF copies of the updated WRMP which will include:
 - i. Updated exhibits for drainage basins with new aerials, updated naming conventions and flow arrows consistent with the standards set by the 2018 WRMP
- b. Provide a hydraulic and hydrologic model for the back-to-back 100-year 24-hour rainfall events. The model outputs must be in a PDF format and submitted to the City with the source model files in their native format.
- c. Provide an updated hydraulic and hydrologic model for the 100-year 10-day snowmelt. The model outputs must be in a PDF format and submitted to the City with the source model files in their native format.
- d. Provide a cost estimate for water quality testing based on the existing 5-year testing map that the city will provide.
- e. Have one staff member attend any public meetings or advisory committees which will be scheduled and coordinated by the City.

11. Project Management

11.1. Project Coordination and Administration

11.1.1. Project management includes work necessary for communicating and completing the project tasks on time and within budget. The Contractor must not reassign the project manager or their primary duties without the written consent of the City's project manager. The Contractor's staff must have the training and expertise necessary for the work tasks to which they are assigned.

11.1.2. Meeting summaries must be submitted no later than three business days after each meeting. Final meeting summaries must be submitted no later than one business day after receiving comments on draft summaries.

11.1.3. The Contractor will:

- a. Prepare a schedule to be used to track the progress of the updates and ensure the project goals are achieved.
- b. Prepare invoices accompanied by:
 - i. Progress report form (Exhibit A).
 - ii. Supporting data for direct expenses.
- c. Manage, coordinate, direct, and monitor subcontractor services, including reviewing progress reports, deliverables, schedule, and invoices.
- d. Update the City's project manager on the status of the project schedule, budget, and general status/progress at the weekly progress meetings.
- e. Store all deliverables in an organized electronic document management system and make deliverables available to the City's project manager as needed whether the file is incomplete, in draft form, or the final deliverable.
- f. Track issues and action items that develop during the project that either need resolution or implementation. The Contractor will review project issues and action items with the City's project manager at the weekly progress meetings.

11.2. Project Meetings

11.2.1. Initial Meeting

The Contractor will schedule and facilitate a project kickoff meeting to confirm the basic project objectives, solidify a work plan, and obtain consensus on the project requirements.

11.2.2. Project Management Team (PMT) Meetings

11.2.3. The Contractor will facilitate bi-weekly PMT meetings with the City's project manager and other personnel as identified by the City's project manager. The PMT meetings are intended to provide a management-level view of project development.

11.2.4. One PMT meeting will be used to address City comment on the draft WRMP stage to discuss City comments and provide resolution before finalizing the WRMP report and other required deliverables.

12. Water Resource Management Plan

12.1. General

12.1.1. The scope of this work covers the updates to the City's current 4th generation WRMP, and merging key development requirements contained within the Northwest Area Stormwater Manual, into a single, comprehensive WRMP that can be applied city-wide. This may include sub-sections of the WRMP that pertain only to the Northwest Area of the City. The updates will include all exhibits, tables, summaries, etc. The city will provide the Consultant with a list of potential future projects to format and place within the WRMP.

12.2. Standards and Guidance

12.2.1. All deliverables must be prepared in accordance with:

- a. Metropolitan Council's water resource policy plan
- b. Chapter 8410 of the Minnesota statutes
- c. Lower Mississippi River Watershed Management Organization (LMRWMO)
- d. Eagan-Inver Grove Heights Watershed Management Organization (EIGHWMO)

12.2.2. Draft versions of the WRMP shall be circulated for review and feedback (60-day review) from the following organizations:

- a. LMRWMO
- b. EIGHWMO
- c. Metropolitan Council
- d. Minnesota Board of Water and Soil Resources (BWSR)
- e. Dakota County Soil and Water Conservation District
- f. City of Eagan
- g. City of Rosemount
- h. City of West St. Paul
- i. City of South St. Paul
- j. City of Inver Grove Heights – Planning Division

12.3. Items Provided by the City

12.3.1. City storm water models from past projects and plans: [Water Resources](#)

12.3.2. Current Water Resource Management Plan and information: [Water Resources Management Plan | Inver Grove Heights, MN - Official Website](#)

12.4. WRMP Deliverables:

12.4.1. As part of the WRMP updates, the final deliverable will include:

- a. Removal of references to the Northwest Area Stormwater Manual.
- b. The removal of policies that conflict with City code or engineering best practices.

- c. The renaming of drainage areas that do not follow the current standard set by the 4th generation WRMP.
- d. The updating of all figures within Appendices of the 4th generation WRMP including:
 - i. Aerials (where applicable)
 - ii. Flow paths that are easily identifiable
 - iii. Identification of landlocked and landlocked terminal basins as defined in section 2.1 of the 4th generation WRMP
 - iv. Identification of overflow types as defined in section 2.1 of the 4th generation WRMP
 - v. Naming of subbasins in accordance with the standard set in section 2.0.15
- e. Updating of any current SWPPP and MS4 Permitting Information (Appendix B)
- f. Updating of future project list and project costs (to be provided by City staff) (Appendix C).

13. Citywide Hydraulic and Hydrologic (H&H) Modeling & Review

13.1. General

- 13.1.1. The scope of this work covers the creation of a new citywide SWMM model that can simulate stormwater runoff and drainage processes for a variety of rainfall events. As a part of the model's creation, the Consultant will assist the City with developing a set of standards for the updating, maintenance and settings for models created within the City.

13.2. Standards and Guidance

- 13.2.1. All deliverables must be prepared in accordance with:

- a. Metropolitan Council's water resource policy plan
- b. Chapter 8410 of the Minnesota statutes
- c. Lower Mississippi River Watershed Management Organization (LMRWMO)
- d. Eagan-Inver Grove Heights Watershed Management Organization (EIGHWMO)
- e. Inver Grove Heights 4th Generation WRMP

13.3. Citywide H&H Model Deliverables

- 13.3.1. As part of the creation of the Citywide model, the Consultant will provide:
 - a. A review of the existing northwest area snowmelt identifying items outlined below
 - b. A Citywide H&H model that meets the requirements outlined below
 - c. A user manual outlining processes identified below

13.4. Existing Model Review

- 13.4.1. Prior to the creation of a new model, the Contractor will review the existing model provided by the City regarding best engineering practices.
 - a. The Review will identify:

- i. Information that is missing from the current model.
 - ii. Gaps in current practice with regards to current engineering best practices.
 - iii. Potential additional standards or guidelines that should be incorporated.
 - iv. Potential risks of current/proposed standards or guidelines.
 - b. The Contractor will present these findings and suggested modifications at the start of the project prior to commencing work on the model.
- 13.4.2. The Consultant will also review the provided modelling information and goals of this Water Resource Management Plan to determine if additional modelling is necessary for the City to implement goals, policies, and strategies for its implementation.
- 13.5. Citywide H&H Model Capabilities
 - 13.5.1. The final model will include and be capable of the following:
 - a. The ability to simulate multiple rainfall events (e.g. 100-year 24-hour storm event, back-to-back 100-year 24-hour storm event, and those listed in section 9-5-8C of city code).
 - b. A naming convention consistent with the standards established by the previous generation WRMP.
 - c. The ability to determine the high-water lines of major lakes or ponds within each subbasin.
 - d. Any additional modelling necessary to fill gaps identified in the review of the existing modelling.
- 13.6. H&H Model User Manual
 - 13.6.1. The Consultant will provide an accompanying user manual for the H&H model that details the processes and assumptions required for the City to maintain and update the model.

6.2 Winter Salt Week Summary

Winter Salt Week Activity Summary

Prepared by: Lindsey Albright, Monitoring & Outreach Coordinator

Dakota County SWCD



PURPOSE/ACTION REQUESTED:

Information only.

SUMMARY:

The Dakota County SWCD partnered with Dakota County Environmental Resources and Groundwater Departments, the Lower Mississippi River WMO, Lower MN River WD, Black Dog WMO, and the Vermillion River Watershed JPO on a chloride outreach and volunteer chloride monitoring campaign at all ten Dakota County Library locations. This campaign was done as part of Winter Salt Week (January 27-31), an international collaboration of governmental and non-governmental organizations, as well as the public to learn about and engage on chloride pollution and solutions topics/issues in their community.

Outreach Effort:

- Display at/near the entrance of each library branch.
- Book display topics included include winter, snow, fun snow activities, snowplows, etc.
- Giveaways: Salty Dawg activity book, temporary tattoos, buttons, bookmarks, smart salting salt measuring cups (see attachments)
- Winter/snow maintenance related scavenger hunt (find a picture or letter search) with a snowflake sticker prize.
- Contact point for monitoring kit pick-up.
- Additional outreach programming at the Lowe's Kids Workshop (West St Paul) on January 18th.
- Outreach materials (social media content and graphics, flyers) were provided to City and watershed partners to help get the word out.
 - Resulting in increased visibility of the campaign and some great social media posts.

Monitoring Program / Salt Watch:

- The chloride monitoring effort was supported by Salt Watch, a national community science program hosted by the Izaak Walton League of America (IWLA) that provides organizations and volunteers with free kits to track levels of chloride in their local streams throughout the year.
- Volunteers registered for kits via Dakota County Volunteer website and picked up kits at their preferred Library branch.

- The monitoring kits included two test strips, a chart for result interpretation, and instructions for completing a Salt Watch test and reporting findings in the Clean Water Hub.

Monitoring Results:

34 people signed up for monitoring kits via the Dakota County volunteer website, though we know there were several people who did not register with Dakota County that also picked up kits. Volunteers have been actively recording their chloride readings in the Clean Water Hub since January 27th (Image 1 – Salt Watch Map and Findings and Table 1 – Salt Watch Monitoring Sites and Readings). We expect more entries in the coming months – using Dakota County kits or ones received directly from the IWLA.

Image 1. Salt Watch Map

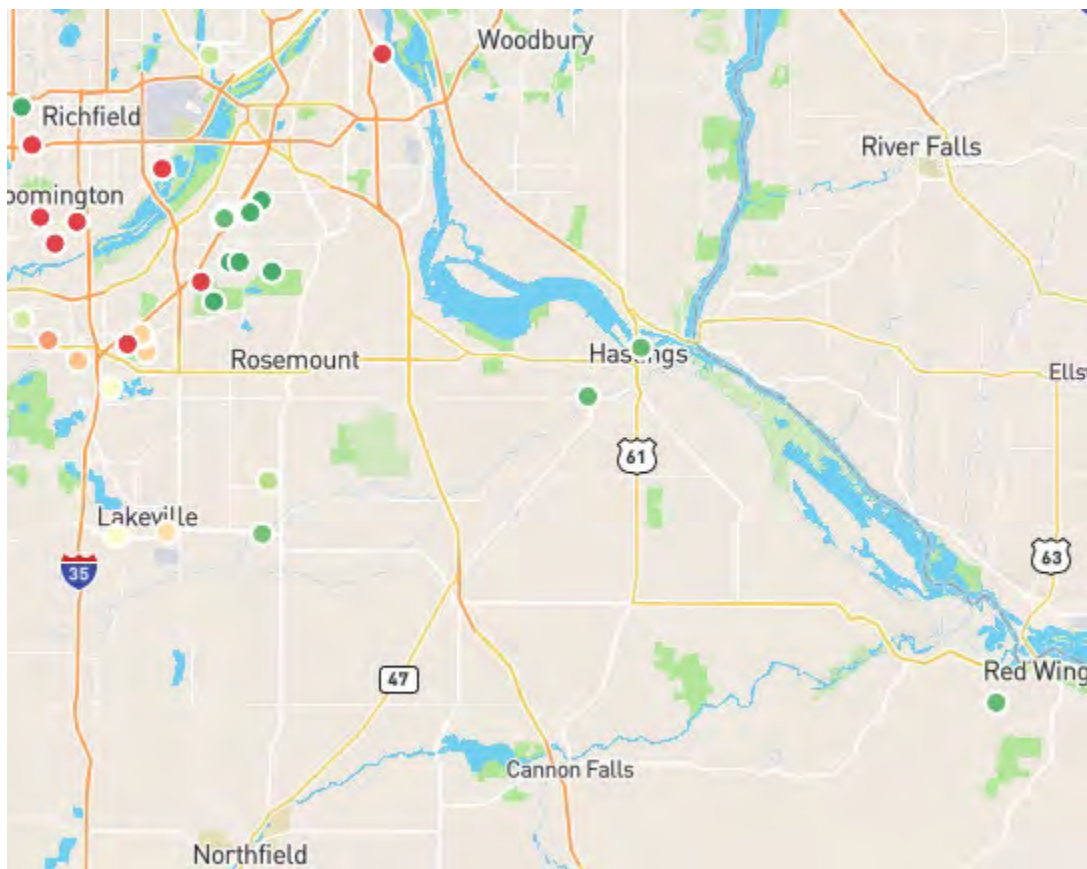


Table 1. All Dakota County Salt Watch Monitoring Sites and Readings

Monitoring Site Name	Water Source Type	Watershed	City	Site Coordinates	Chloride Reading (mg/L)
Crystal Lake (west side)	Lake	Black Dog	Burnsville	44.723311, -93.272066	106
Earley Lake	Lake	Black Dog	Burnsville	44.738569, -93.298301	159
Sunset Pond Park	Pond	Black Dog	Burnsville	44.750089, -93.322271	182
Hidden Valley Park	River	Credit River	Savage	44.762061, -93.343340	85
Blackhawk Lake	Lake	Eagan-IGH	Eagan	44.818761, -93.183163	42
Blackhawk Lake	Lake	Eagan-IGH	Eagan	44.818753, -93.181890	42
Fish Lake	Lake	Eagan-IGH	Eagan	44.822002, -93.164107	31
Fish Lake - East Side	Lake	Eagan-IGH	Eagan	44.822206, -93.160994	25
Fish Lake - East Side	Lake	Eagan-IGH	Eagan	44.822259, -93.161129	25
Fish Lake - East Side	Lake	Eagan-IGH	Eagan	44.822216, -93.161287	37
Pond near Covington Ln and Galaxie Ave	Pond	Eagan-IGH	Eagan	44.783156, -93.201266	453
Thomas Lake Park	Lake	Eagan-IGH	Eagan	44.794220, -93.169825	31
Simon's Ravine	Stream	Lower Mississippi	South St Paul	44.911767, -93.055872	750
Mississippi River @ Levee Park	River	Mississippi River	Hastings	44.745797, -92.849588	43
Alimagnet Lake SE Outlet	Lake	Vermillion River	Apple Valley	44.743461, -93.243804	145
Sunset Park Pond	Stormwater	Vermillion River	Apple Valley	44.752396, -93.246818	750
Echo Park Elementary School	Stormwater	Vermillion River	Burnsville	44.747921, -93.259068	750
North Alimagnet Lake	Stormwater	Vermillion River	Burnsville	44.753412, -93.248866	139
North Creek @ 195th St W	Creek	Vermillion River	Farmington	44.670267, -93.146866	73
Rambling River Park	River	Vermillion River	Farmington	44.640397, -93.151465	49
Vermillion River @ General Sieben Dr	River	Vermillion River	Hastings	44.718157, -92.891796	37
South Creek @ Hamburg Ave	Creek	Vermillion River	Lakeville	44.641503, -93.227619	131
South Creek @ Lakeville South High School	Creek	Vermillion River	Lakeville	44.639186, -93.268352	106

Toxic	230	Elevated	120	Low	30
High Risk	207	Moderate	60	Great	<30

Library Displays:

Campaign support from partners was strong throughout the county and participant feedback has been positive – people enjoyed the outreach materials, as well as the opportunity to monitor chloride in their community. Several volunteers requested additional kits directly from IWLA Salt Watch so that they can continue monitoring in the future. Volunteers are interested to learn about the monitoring results and want to participate in the campaign again next year.

Feedback from library staff has also been positive. They enjoyed seeing all the interest and enthusiasm from across the whole system. The outreach materials made it easy for the branches to create attractive displays that the public could engage with (Image 2 – Inver Glen Library display, Image 3 – Wentworth Library display, and Image 4 - Wescott Library display). Library staff look forward to partnering on the campaign in the future.

Image 2 – Inver Glen Library salt week display, Funded by the LMRWMO



Image 3 – Wentworth Library Salt Week Display



Image 4 – Wescott Library display.



Winter Salt Week 2025 Costs and Funding

Partner Financial Summary

Category	Item	Company	Quantity	Cost
<i>Printing</i>	Bookmark	Canva	500	\$75.00
	Coloring Books	Mixam	600	\$429.18
	Temporary Tattoo	4Imprint	1000	\$305.65
<i>Outreach Swag</i>	Button making supplies	Amazon	2400	\$66.96
	Stickers	Amazon	3000	\$31.97
	Temporary Tattoo	Amazon	180	\$9.99
	Smart Salting cups	<i>Staff hours contribution - Dakota County Groundwater Dept</i>		
	Additional outreach material creation and printing	<i>Staff hours contribution - Dakota SWCD and Dakota County</i>		
<i>Monitoring kits</i>	Chloride test strips	IWLA Salt Watch	80	-
Total:				\$918.75

Funding Breakdown

Organization	Cash Funding	Division	Staff Hours	Total Contribution
Dakota SWCD	\$18.75	0	86.5 hours	\$8,650.00
BDWMO	\$300.00	1/3	0	\$300.00
LMRWD	\$300.00	1/3	0	\$300.00
LMRWMO	\$300.00	1/3	0	\$300.00
Total: \$918.75				

Next Steps:

If County and Watershed Management Org. partners would like to support this effort to continue in 2026, this could be included in future SWCD/WMO annual work plans as part of more formal chloride education programming.

Attachments

Factsheet



Thompson Lake is located in the City of West Saint Paul within the Lower Mississippi River Watershed Management Organization (LMRWMO). The lake is one of 50 Minnesota waterbodies with chloride levels that pose a threat to fish and wildlife as well as human health.

Chloride levels in Minnesota's lakes, rivers and groundwater are increasing over time, largely attributed to overuse of de-icing salt. One teaspoon of salt pollutes five gallons of water, with no feasible way to remove it. Water treatment plants are not equipped to filter out the extra salt, so it can end up in your tap water and even corrode your pipes.

Head to the LMRWMO's website to learn what you can do to protect Thompson Lake and other local waterbodies



LMRWMO
LOWER MISSISSIPPI RIVER
WATERSHED MANAGEMENT ORGANIZATION

Dakota
COUNTY

Activity Booklet and Outreach Information



**Salty Dawg says -
Salt smarter
and help
protect our
waters!**



Check the pavement temperature before applying salt! Salt only works when pavement temperature is above 15°F. In colder temperatures, use different products such as sand or a de-icer.



ONE mug of road salt is enough to clear a 20 ft driveway.



Remove snow early and often to lessen the need for salt. If salt or sand is needed, make sure you sweep up any excess to prevent it from entering local waters!

Clear the road with smart salting words!

O	T	S	M	A	R	T	P	O	S	E	L	S	W
E	I	O	W	C	W	A	T	E	R	L	A	K	E
W	T	E	O	S	O	E	A	D	E	T	L	L	T
E	R	S	L	W	T	R	W	I	N	T	E	R	L
T	E	T	P	K	T	E	E	R	T	S	S	V	T
L	C	R	W	R	W	N	A	O	C	T	S	O	S
A	I	E	O	S	A	L	T	L	D	A	O	R	T
N	E	A	N	I	K	A	T	H	E	O	W	I	A
D	D	M	S	C	R	A	N	C	W	S	A	O	A
S	I	D	E	W	A	L	K	L	E	V	O	H	S
E	E	O	U	W	R	L	C	T	R	L	O	T	N
W	C	A	T	O	L	G	N	I	K	R	A	P	A
N	A	P	O	L	L	U	T	I	O	N	T	K	L
D	O	E	A	W	A	R	E	N	E	S	S	O	O

Awareness
Chloride
Deicer
Lake

Parking Lot
Pollution
Road
Salt

Shovel
Sidewalk
Smart
Snowplow

Stream
Street
Water
Wetland
Winter



Did you know?

Road salt is the leading cause of chloride pollution in local waters - lakes, rivers, streams, and wetlands.

Some salt during winter is necessary for safe roads, driveways, and sidewalks. But when the snow melts, salt can go into our local waters affecting fish and plants.

One teaspoon of salt can permanently pollute five gallons of water FOREVER



Be safe AND protect our waters by following these steps:

Clear the snow before it turns to ice. The more snow you remove with a shovel or snowplow, the less salt you will have to use (and it will be more effective!).

If you use salt, scatter so that there is space between the grains. Less is more when it comes to salt!

Salt won't work when pavement temperatures are below 15 degrees F. Use sand for traction or a different ice melter that works at lower temperatures.




Thank you for helping Salty "connect the dots" on how to reduce salt use and keep our freshwater fresh!




Bookmarks

SALT SMART with Salty Dawg



Use of some salt during winter is necessary for safe roads, driveways and sidewalks. However, salt gets into our local lakes and rivers when snow melts, affecting fish and plants.


One
teaspoon
of salt can
permanently
pollute five
gallons of
water
FOREVER




Help prevent salt pollution
with these simple steps:

- * Shovel early and often.
- Check the pavement temperature (salt won't work if pavement is less than 15 deg F).
- * Scatter salt on cleared pavement - it will work better and you can use less!
- * Sweep up the extra! *Duke's*


Salty Dawg's WINTER READING LIST




GOOD MORNING, SNOWPLOW!
DEBORAH BRUSS




SNOWPLOWS
CARI HEISTER




FIRST SNOW
BOB PARK



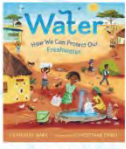
WEATHER: SNOW
BRIENNA ROSSITER



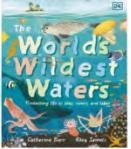
SNOWMEN AT WORK
CARALYN BUEHNER




TEN WAYS TO HEAR SNOW
CATHY CARPIS



WATER: HOW WE CAN PROTECT OUR FRESHWATER
CATHERINE BARR



THE WORLD'S WILDEST WATERS
CATHERINE BARR



Together,
we can limit
salt pollution
in our waters!

Buttons



Scavenger Hunt

