

MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

455 HAYWARD AVENUE, OAKDALE, MINNESOTA 55082
Phone 651.796.2227 fax 651.330.7747 www.mscwmo.org



Regular Meeting of the Middle St. Croix Watershed Management Organization

Remotely held as posted on www.mscwmo.org

Physical location - Washington Conservation District, 455 Hayward Ave N

Thursday, March 12th, 2026

6:00PM

1. Call to Order – 6:00PM
 - a. Approval of Agenda
2. Approval of Minutes
 - a. Draft minutes – January 8th, 2026 **pg. 1-5**
3. Treasurer’s Report
 - a. Report of savings account, assets for March 12th, 2026
 - b. Approve payment of bills for March 12th, 2025
4. Public Comment
5. Old Business
6. New Business
 - a. 2025 Water Quality Monitoring Report **pg. 6-41**
 - b. 2025 Annual Watershed Report **pg. 42-66**
 - c. 2025 Adopt-a-Drain Summary **pg. 67-73**
 - d. Gully Erosion Analysis Authorization **pg. 75-75**
7. Grant and Cost Share Applications
 - a. Halsten Stewardship Grant Request **pg. 76**
 - b. FY27 Projects and Practices CWF Grant Request **pg. 77**
8. Plan Reviews/Submittals
 - a. Plan Review and Submittal Summary **pg. 78**
 - i. 1081 Quixote Ave – **INFORM**
 - ii. Bayhaven Second Addition **pg. 79-86**
 - iii. Bridgeview Parking Lot **pg. 87-95**
 - b. Erosion and Sediment Control Inspection Reports **NONE**
9. Staff Report **pg. 96-97**
10. 1W1P Updates
11. Other
12. Adjourn

Draft Minutes, Pending Board Approval

Regular Meeting of the Middle St. Croix Watershed Management Organization
Washington Conservation District, 455 Hayward Ave N
Thursday, January 8th, 2026
6:00PM

Present: Rachel Dana, West Lakeland; Dave Millard, Lakeland; Ryan Collins, Stillwater; Avis Peters, Baytown; Carly Johnson, Oak Park Heights; Michele Hanson, Bayport; Administrator Matt Oldenburg-Downing; Amanda Herbrand, WCD; Cameron Blake, WCD; Brett Stolpestad, WCD

Audience: Tom McCarthy (remote), Brian Zeller (remote)

Call to Order

Manager Johnson called the meeting to order at 6:00PM.

Approval of Agenda

Manager Hanson proposed an addition to the agenda 7g. Meeting location. Manager Hanson motioned to approve the agenda with the addition. Manager Collins seconded the motion. The motion carried with all in favor.

Approval of Minutes

Manager Hanson motioned to approve the draft December 11th, 2025 board meeting minutes, Manager Dana seconded the motion. The motion carried with all in favor.

Treasurer's Report

Manager Johnson presented the treasurer's report. The remaining checking account balance as of January 8, 2026 was \$49,853.12. First Bank CD's were valued at \$213,549.15. The ending value on the RBC savings account from November was \$100,844.43. Manager Collins motioned to approve the report of the savings account and assets for January 8th, 2026. Manager Peters seconded the motion. The motion carried with all in favor.

Bills to approve for January are four bills to the Washington Conservation District for admin, technical services, EMWREP, for \$13,860.65, and one bill to Town Law Center for \$21.00. The total for January bills is \$13,881.65. Manager Peters motioned to approve payment of bills for January totaling \$13,881.65. Manager Collins seconded the motion. The motion carried with all in favor.

Invoices for this month are City of Lakeland, \$903.50; City of Lakeland, \$1,415.00; City of St. Mary's Point: \$547.25; City of Lake St. Croix Beach, \$3,131.50. Manager Millard motioned to approve sending the invoices to the listed communities. Manager Hanson seconded the motion. The motion carried with all in favor.

Public Comment

None

Watershed Management Plan Update

The Board of Water and Soil Resources (BWSR) requires watersheds to have a management plan and MSCWMO’s current management plan expires in 2025. The MSCWMO draft Plan was presented to the BWSR Central Region Committee on December 8th, and was approved by the full BWSR Board on December 18th. In accordance with Minnesota Statute 103B.231, Subd. 7. The next step in the management plan update process is for the MSCWMO Board to adopt and implement the approved plan, send the updated plan out to the member communities for incorporation into their local water management plans.

Manager Dana motioned to adopt the 2025-2035 management plan, and distribute the updated management plan to member communities. Manager Peters seconded the motion. The motion carried on a roll call vote with all in favor.

Old Business

2026 Insurance Renewal

Administrator Oldenburg-Downing followed up with MSCWMO legal counsel at the request of the board to determine if the district insurance covers board members as well, and legal counsel confirmed that it does. This is an information item.

New Business

Officer Appointments

Officer appointments are done annually. Manager Peters motioned to maintain the same officer appointments from the previous year. Manager Collins seconded the motion. The motion carried with all in favor.

Chair-Brian Zeller

Vice Chair-Tom McCarthy

Treasurer-Carly Johnson

Secretary-Annie Perkins

2026 First Half Contribution Reminders

Administrator Oldenburg-Downing requested permission to send out 2026 first half contribution reminders to the member communities. In addition, he noted that second half contributions for 2025 were not received from Bayport and St. Mary’s Point.

Manager Hanson motioned to approve sending first half contribution reminders and 2025 second half reminders to those communities that have not yet paid. Manager Collins seconded the motion. The motion carried with all in favor.

2025 Inspections and Maintenance Summary

Cameron Blake and Brett Stolpestad from the Washington Conservation District presented to the board their 2025 Inspections and Maintenance Summary. This presentation included an overview of what maintenance was conducted on BMPs in the watershed, and what new projects were installed in 2025.

2025 Audit Engagement

Administrator Oldenburg-Downing stated that MSCWMO is no longer required to have an audit every year due to the organization's revenue being under the threshold. He asked the board if they would still like to have an audit performed.

Manager Johnson suggested Administrator Oldenburg-Downing check with legal counsel to find out if there is a preferred timeline for how often an audit should be performed. Manager Hanson motioned to deny audit engagement for 2025 and check with legal counsel for advice on when to next engage. Manager Collins seconded the motion. The motion carried with all in favor.

2025 Budget Summary

Administrator Oldenburg-Downing presented a table of the 2025 budget versus actual expenditure. The table shows that the 2025 budget was \$157,900.00 and the amount spent was \$163,381.48 which is an overage of 3.47 percent. The cost breakdown shows that the majority of these overages come from plan reviews. Some costs from plan review overages can be recouped when projects close out and communities are billed for the additional time spent.

Manager Peters inquired about the formula for community contributions. Manager Johnson asked if there is a policy for when to update the formula. Administrator Oldenburg-Downing stated there is not, currently 2022 data is being used. Manager Johnson motioned to update the formula with the new census data every time new census data becomes available. Manager Hanson seconded the motion. The motion carried with all in favor.

2026 Adopt-a-Drain Request

Included in the packet is an invoice from Metro Watershed Partners requesting payment of \$500.00 in exchange for membership. MSCWMO has participated in the Adopt-a-Drain program for many years.

Manager Collins motioned to approve payment of \$500.00 to Metro Watershed Partners for the Adopt-a-Drain program. Manager Peters seconded the motion. The motion carried with all in favor.

Meeting Location

Manager Hanson inquired about the meeting location being the Washington Conservation Center when meetings were previously held at the Bayport Library, noting that construction on the Bayport Library is complete if the board was interested in changing the meeting location.

Administrator Oldenburg-Downing mentioned previous reasons being the ease of technology use at the Washington Conservation Center as he performs IT work for the WCD and is able to fix any problem that arise. He also noted that the Bayport Library has a closing time, and that doors cannot be locked if the meeting is still ongoing due to public meeting laws. Manager Millard noted that meetings have been running smoothly at the Washington Conservation Center.

Grant and Cost Share Applications

Jackson Stewardship Grant Request

Oak Park Heights residents Mitch and Lyndsay Jackson are applying for a 2026 MSCWMO Stewardship Grant to covert approximately 1,200 square feet of existing turf to native pollinator

garden on their property located at 13983 55th St N. Stewardship Grant funds will be used to reimburse for native plant and seed purchases, as well as mulch control material. The goal of the project is to reduce runoff volume from the property and to provide diverse pollen and nectar resources to pollinators throughout the season. Total project estimate is \$1,471.05 and cost share requested is \$500.00.

Manager Hanson motioned to approve encumbrance of \$500.00 cost share for the Jackson Turf-to-Prairie project at 13983 55th St N, Stillwater, MN 55082. Manager Collins seconded the motion. The motion carried with all in favor.

Stonebridge Elementary Water Quality Grant Request

Lund Stewardship Grant Request

Jessica Drummond is applying for a 2026 MSCWMO Water Quality Improvement Grant on behalf of Stonebridge Elementary School in Stillwater to restore 2.5 acres of buckthorn dominated school forest. The Stonebridge Elementary school forest is a 2.5 acre parcel upstream of and adjacent to a small emergent wetland and series of stormwater ponds draining to Lake McKusick. The forest is currently dominated by aging cultivated pines with buckthorn in the understory. It was designated a school forest by the DNR in 2023 and is city property. This project will remove invasive species and install native forest understory trees and shrubs with help from Stonebridge Elementary students and community members. The removal of invasive species and restoration of the forest ground layer will enhance water quality via soil stabilization from root structure, water uptake, and filtration. The project is located in Catchment McK-20, a prioritized catchment of the 2011 Lake McKusick Stormwater Retrofit Assessment and is estimated to reduce soil loss and nutrient export, enhancing the efficacy and lifespan of downstream BMPs. The applicant has submitted a letter of support from the City of Stillwater expressing support and approval of the project, which is included in the board packet. The total project estimate is \$8,309.70 and the cost share requested is \$2,200.00.

Manager Hanson motioned to approve encumbrance of \$2,200.00 cost share for the Stonebridge Elementary School Forest Restoration Project at 900 Owens St N, Stillwater, MN 55082.

Plan Reviews/Submittals

1081 Quixote Ave

The MSCWMO has previously approved two site plans for 1081 Quixote Ave, neither of which have been implemented. The applicant is requesting approval for one of two proposed revisions to the most recently approved plan. Staff recommends that the Board does not accept either plan as presented, and direct the applicant to revise and resubmit.

Manager Peters motioned to not accept either plan as presented and direct the applicant to revise and resubmit. Manager Dana seconded the motion. The motion carried with all in favor.

Bridgeview Parking Lot

Submittal items were received on December 15th, 2025 for parking lot reconstruction of the Bridgeview Parking Lot within the MSCWMO boundaries and the City of Stillwater. The proposed project qualifies for full review under the MSCWMO 2015 Watershed Management

Draft Minutes, Pending Board Approval

Plan (WMP) for over 6000 square feet of reconstructed impervious and work within public waters buffers. The fully meets MSWCMO MIDS volume retention and rate control standards. MSCWMO staff recommends board approval with four conditions:

1. Appropriate soil borings have been conducted that meet the minimum standards and demonstrate assumed design infiltration rate based on soil texture and three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally saturated soils.
2. Tabulated quantities of all erosion prevention and sediment control BMPs are provided.
3. Blufflines are protected from construction activities in urban (40 foot buffer) areas.
4. A buffer zone of not less than 100 linear feet from the St. Croix River OWH is maintained both during construction and as a permanent feature post construction.

Manager Peters motioned to approve the project with the four conditions. Manager Collins seconded the motion. The motion carried with all in favor.

Erosion and Sediment Control Inspection Reports

None

Staff Report

Administrator Oldenburg-Downing presented the staff report. Most of the items in the staff report were discussed during the meeting, the full report can be found in the board packet.

1W1P Updates

None

Other

None

Adjourn

Manager Collins motioned to adjourn the meeting, Manager Peters seconded the motion. The meeting adjourned at 7:33.

Middle St. Croix Watershed Management Organization 2025 Water Monitoring Summary



Prepared For:

Prepared by:



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DRAFT

ACKNOWLEDGEMENTS

Multiple agencies and individuals were directly involved in many aspects of this project, such as data collection and data analysis, as well as technical and administrative assistance.

Middle St. Croix WMO (MSCWMO) Board of Managers

Annie Perkins, Secretary

John Dahl

Orin Kipp

Avis Peters

Brian Zeller, Chair

Dave Millard

Tom McCarthy, Vice Chair

Carly Johnson, Treasurer

Tom Grahek

Ryan Collins

Rachel Dana

Washington Conservation District

Matthew Oldenburg-Downing, MSCWMO Administrator

Metropolitan Council

Brian Johnson

Monica Rose

Mallory Vanous

Minnesota Department of Natural Resources (MN DNR)

Nick Hayes

The WCD would also like to thank the volunteers and landowners who assist with data collection and allow property access.

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ABBREVIATIONS, DEFINITIONS, ACRONYMS, AND SYMBOLS

Anoxic	Lacking oxygen
BCWD	Brown's Creek Watershed District
Benthic	The area nearest lake bed
Biweekly	Every two weeks
BMP	Best management practice
cf	cubic feet
cfs	cubic feet per second
Chl- α	Chlorophyll- α
DO	Dissolved oxygen
<i>E. coli</i>	<i>Escherichia coli</i>
Littoral zone	The area of a body of water where sunlight penetrates to the sediment and allows aquatic plants (macrophytes) to grow
m	meters
MCES	Metropolitan Council Environmental Services
mg/L	milligram per liter
mL	milliliter
MN DNR	Minnesota Department of Natural Resources
MPCA	Minnesota Pollution Control Agency
MPN	Most probable number
MSCWMO	Middle St. Croix Watershed Management Organization
NAVD 88	North American Vertical Datum of 1988, used for determining lake elevations
NGVD 29	National Geodetic Vertical Datum of 1929, used for determining lake elevations
OHW	Ordinary high water level
SOP	Standard operating procedure
TKN	Total Kjeldahl nitrogen
TP	Total phosphorus
TSI	Trophic State Index
TSMP	Trout Stream Mitigation Project
TSS	Total suspended solids
$\mu\text{g/L}$	micrograms per liter
$\mu\text{mhos/cm}$	micromhos per centimeter
VSS	Volatile suspended solids
WCD	Washington Conservation District

EXECUTIVE SUMMARY

This report focuses on the summary and comparison of lake and stream water quality data collected by the Washington Conservation District (WCD) in 2025, as well as previous years. In 2025 the Middle St. Croix Watershed Management Organization (MSCWMO) monitored water quality and water surface elevation on McKusick Lake and Lily Lake, water surface elevation on Brick Pond, and flow and water quality at Perro Creek at the Diversion Structure (Figure 1). The purpose of this monitoring is to assess and document current water quality conditions of the lakes and streams, as well as continuation of a long-term monitoring program that will enable the MSCWMO to identify trends associated with best management practice (BMP) implementation and land use changes in the watershed. Also included in this report is data collected at the Brown's Creek Diversion Structure, which is a tributary to McKusick Lake that is monitored by the WCD for the Brown's Creek Watershed District (BCWD). A period of record for historical water monitoring in MSCWMO is found in Table 1.

Lake Monitoring

Lily Lake was classified as mesotrophic and received an A grade in 2025 (APPENDIX A). All samples collected June – September met the Minnesota Pollution Control Agency's (MPCA) standards for total phosphorus (TP) and for chlorophyll- α (chl- α) corrected for pheophytin. All Secchi disk transparency measurements also met the MPCA standard (APPENDIX A).

In 2025 McKusick Lake was classified as eutrophic and received a grade of C+ (APPENDIX A). Five of the nine samples collected June – September did not meet the Minnesota Pollution Control Agency's standard for total phosphorus and one sample did not meet the standard for chlorophyll- α corrected for pheophytin. All Secchi disk transparency measurements met the MPCA shallow lake standard (APPENDIX A).

Stream Monitoring

In 2025 the total recorded discharge from Perro Creek at the Diversion Structure to the St. Croix River was 26,453,270 cubic feet (similar to 2024), which included discharge through the

overflow structure. The average baseflow TP concentration was 0.032 mg/L (similar to 2018-2021 and 2024) and the average baseflow TSS concentration was 3 mg/L (consistent since 2018). The average TP concentration from storm samples was 0.226 mg/L (second lowest since 2018) and the average TSS concentration from storm samples was 222 mg/L (highest since 2016). TP and TSS loads to the St. Croix River were calculated only during monitored periods, and in 2025 the TP load was 75.7 lbs. and the TSS load was 29,152 lbs.

Discharge at the Brown's Creek Diversion Structure in 2025 was 60,305,225 cubic feet (fifth highest since 2006). The total annual TP load was 416 lbs. (sixth lowest since 2006) and the TSS load was 73,469 lbs. (second lowest since 2006). Concentrations of metals were again low in 2025 with only one lead result exceeding the MPCA chronic standard.

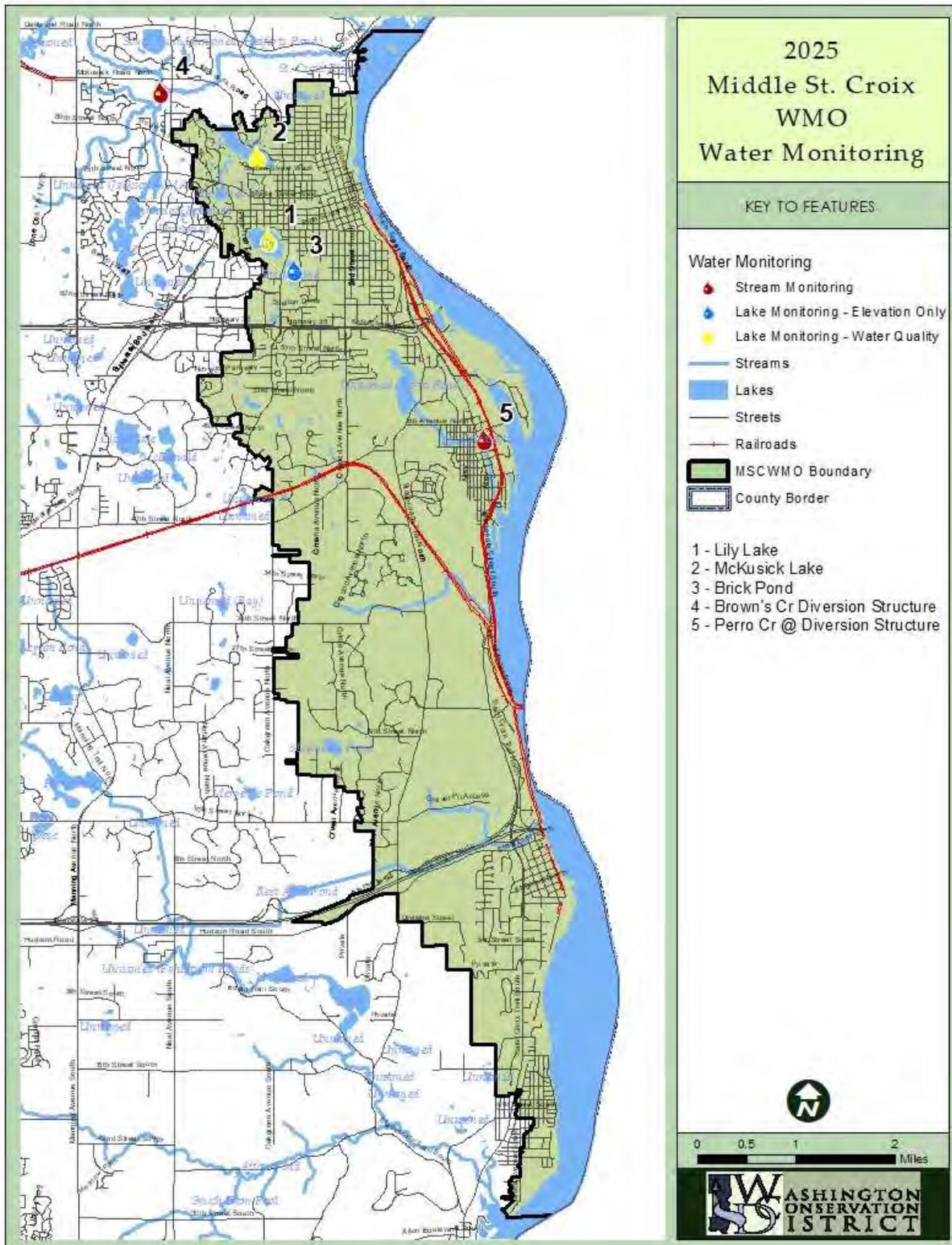


Figure 1. MSCWMO 2025 Water Monitoring Locations

Table 1. Water Monitoring Period of Record in MSCWMO

Monitoring Type	Location	Monitored Years	Monitored Parameters
Lake Monitoring	Lily Lake (82-0023)	1995-2025	Water Quality Samples, Elevation
Lake Monitoring	McKusick Lake (82-0020)	1994-2025	Water Quality Samples, Elevation
Lake Monitoring	Brick Pond (82-0308w)	2008-2013, 2022-2025	Water Quality Samples, Elevation
Stream/Stormwater	Perro Creek at Diversion Structure	2016-2025	Stage, Discharge, and Water Quality Samples
Stream/Stormwater	Perro Creek Diversion Overflow	2016-2025	Stage and Discharge
Stream/Stormwater	Perro Creek @ 3rd Ave.	2018-2020	Water Quality Samples
Stream/Stormwater	Perro Creek @ 4th St.	2018-2019	Water Quality Samples
Stream/Stormwater	Perro Creek @ 5th Ave.	2018-2019	Water Quality Samples
Stream/Stormwater	Perro Creek @ 6th St.	2006-2013, 2016-2020	Stage, Discharge, and Water Quality Samples
Stream/Stormwater	Perro Creek @ 8th St.	2018-2019	Water Quality Samples
Stream/Stormwater	Perro Creek @ 9th St.	2018-2020	Water Quality Samples
Stream/Stormwater	Perro Creek @ Central Ave.	2018-2019	Water Quality Samples
Stream/Stormwater	Perro Creek @ St. Croix Trl.	2018-2019	Water Quality Samples
Stream/Stormwater	Perro Pond Outlet (Direct to the St. Croix)	2016-2017	Stage, Discharge, and Water Quality Samples
Stream/Stormwater	Perro Pond Outlet (To Perro Creek)	2016-2019	Stage, Discharge, and Water Quality Samples
Stream/Stormwater	Greeley St (Tributary to Lily Lake)	2015-2023	Stage, Discharge, and Water Quality Samples
Stream/Stormwater	Grove St. (Tributary to Lily Lake)	2015	Stage, Discharge, and Water Quality Samples
Stream/Stormwater	Lake St. (Tributary to Lily Lake)	2015-2016	Stage, Discharge, and Water Quality Samples
Stream/Stormwater	Pine Tree (Tributary to Lily Lake)	2015-2016	Stage, Discharge, and Water Quality Samples
Stream/Stormwater	Pump Station (Tributary to Lily Lake)	2015-2016	Stage, Discharge, and Water Quality Samples
Stream/Stormwater	Willard St. (Tributary to Lily Lake)	2015	Stage, Discharge, and Water Quality Samples
Stream/Stormwater	Meadow lark Dr. (Trib. to McKusick Lake)	2009-2011	Water Quality Samples
Stream/Stormwater	Myrtle St. (Trib. to McKusick Lake)	2009-2011	Water Quality Samples
Stream/Stormwater	Brown's Creek Diversion Structure (BCWD)	2006-2025	Stage, Discharge, and Water Quality Samples

LAKE MONITORING

A. METHODS, RESULTS AND DISCUSSION

In 2025 the WCD collected water quality data biweekly on Lily Lake and McKusick Lake, over seven consecutive months (April–October). Measurements obtained during the summer sampling season (June–September) are averaged for a comparison of individual lake dynamics from year to year between lakes within the watershed and to the Minnesota Pollution Control Agency’s (MPCA) impairment standards. Lake grades are based on the averages of samples collected May–September. Average values for all parameters are presented in APPENDIX A and Figure 2 through Figure 5, which show the current and historic summer averages for each parameter. Water quality samples were collected by the WCD with a two-meter (6.56 feet) integrated surface water column sampler. A full description of WCD Standard Operating Procedures (SOP) is available on the Washington Conservation District website at <http://www.mnwcd.org/water->

monitoring. The Metropolitan Council Environmental Services (MCES) Laboratory analyzed the surface water samples for TP, chl- α , and total Kjeldahl nitrogen (TKN).

Total phosphorus is analyzed because it is a major nutrient involved in the eutrophication of lakes and is generally associated with the growth of aquatic plants and/or algal blooms. Common sources of phosphorus include runoff from agricultural fields, livestock areas, urban areas, lakeshore lawns, and improperly operating septic systems. With most lakes in this region, phosphorus is the least available nutrient; therefore, its abundance or scarcity controls the extent of algal growth. Excess algal growth, in turn, negatively affects the clarity, or transparency, and ability of light to penetrate the water. The MPCA sets lake eutrophication standards for aquatic life and recreation. The standard for TP is 0.040 mg/L for deep lakes and 0.060 mg/L for shallow lakes. In general, shallow lakes are defined as less than 15 feet deep, with greater than 80% littoral area, and less than 10 acres. The 2025 summer average TP concentrations of MSCWMO lakes are found in Figure 2.

Chlorophyll- α is measured because it's the photosynthetic component found in algae and aquatic plants and is an indicator of algal productivity. The MPCA standard for pheophytin-corrected chl- α is 14 $\mu\text{g/L}$ for deep lakes and 20 $\mu\text{g/L}$ for shallow lakes. The 2025 summer average chl- α concentrations of MSCWMO lakes are found in Figure 3.

Total Kjeldahl nitrogen, which is the sum of organic nitrogen and ammonia, was analyzed in MSCWMO lakes. While no standard exists for TKN because TP is often the limiting nutrient, TKN can contribute to eutrophication. The 2025 summer average TKN concentrations of MSCWMO lakes are found in Figure 4.

Field measurements are recorded while collecting lake samples, including Secchi disk transparency. The measurement of light penetration using a Secchi disk gives a simple measure of water transparency, or clarity. A reduction in water transparency is typically the result of turbidity composed of suspended sediments, organic matter and/or phytoplankton (algae). The MPCA standard for Secchi disk transparency is 1.4 meters for deep lakes and 1.0 meter for shallow lakes. The 2025 summer average transparency of MSCWMO lakes are found in Figure 5.

User perception and physical/recreational suitability of lakes were recorded, along with temperature and dissolved oxygen (DO) profile measurements taken by the WCD during each sampling event. Profiles are recorded at one-meter increments from the water surface to the lake bottom. The data show the extent of summer stratification and are useful in identifying the development of a thermocline (the layer of water in which the temperature rapidly declines). As a lake stratifies, the water column becomes more stable and mixing is less likely to occur. If mixing occurs during the growing season, nutrients from the lake bottom become available and can result in increased algal production. Lake DO profile data is useful in determining excessive production (algae/plants) in a lake. Increased production creates more DO, for a time, but as plants and algae die off and decay, the bacteria that decompose them consume DO. Low DO conditions may stress fish populations and under anoxic conditions, nutrients may be released from the sediment. Data collected by the WCD can be found on the MPCA website at <https://webapp.pca.state.mn.us/surface-water/search> and can be obtained from the WCD by request.

A lake grading system is used in this summary, to allow for a better understanding of lake water quality data and to aid in the comparison of lakes. The lake water quality grading system was developed by MCES following the 1989 sampling season. The concept of the lake grading system is a ranking of water quality characteristics by comparing measured values to those of other metro area lakes. The grading system represents percentile ranges for three water quality indicators: the May through September average values of TP, uncorrected trichromatic chl- α , and Secchi disk transparency. These percentiles use ranked data from 119 lakes sampled from 1980-1988 and are shown in Table 2. This method has since been replicated and the grading system has been verified with more recent data. The variables used in the grading system strongly correlate to open-water nuisance aspects of a lake (i.e. algal blooms), which can indicate accelerated aging (cultural eutrophication). There is a strong correlation when comparing trophic status to the lake grade. Summaries of all lake results are presented in APPENDIX A.

Table 2. Lake Grade Ranges

Grade	Percentile	TP (µg/L)	Chl- α (µg/L)	SD (m)
A	<10	<23	<10	>3.0
B	10-30	23-32	10-20	2.2-3.0
C	30-70	32-68	20-48	1.2-2.2
D	70-90	68-152	48-77	0.70-1.2
F	>90	>152	>77	<0.70

There are several metrics and systems that can be used to assess lakes, including the Carlson Trophic State Index (TSI) and ecoregion values. The Carlson Trophic State Index is used to quantify the relationship between water quality data and trophic status. Trophic states vary from oligotrophic (low biological activity and high clarity) to hypereutrophic (highly productive with very low clarity). The MSCWMO is located in the North Central Hardwood Forest Ecoregion where lakes are often mesotrophic. Ecoregion values are assigned for TP, TKN, chl- α , and Secchi disk transparency. This report will focus on the methods used by the MPCA and the Metropolitan Council, as previously discussed.

Water elevation monitoring was conducted on two lakes, McKusick and Lily, from March to October 2025. Lake elevation readings are compared to the lake's Ordinary High Water level (OHW)¹. The OHW for Lily and McKusick Lakes are 844.8 ft. and 851.7 ft., respectively (NGVD 29). Changes in lake water elevation are often attributed to the changes in precipitation. Complete lake elevation data for 2025 are found in APPENDIX A. For historical lake elevations, visit the MN DNR Lake Finder webpage at <http://www.dnr.state.mn.us/lakefind/index.html>.

¹ Minnesota State Statutes defines the ordinary high water level (OHW) as follows: Minnesota Statutes 103G.005 Subd. 14. Ordinary High Water Level. "Ordinary high water level" means the boundary of water basins, watercourses, public waters and public waters wetlands, and: The ordinary high water level is an elevation delineating the highest water level that has been maintained for a sufficient period of time to leave evidence upon the landscape, commonly the point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial;

- 1) For watercourses, the ordinary high water level is the elevation of the top of the bank of the channel; and
- 2) For reservoirs and flowages, the ordinary high water level is the operating elevation of the normal summer pool.

Water elevation monitoring also occurred on Brick Pond by a citizen volunteer, April to November. The lowest recorded elevation was 847.47 ft. (NAVD 88) on 11/10/2025 and the highest was 848.84 ft. on 8/19/2025.

1. LILY LAKE

In 2025 WCD staff conducted two-tailed Kendall's Tau statistical analysis based on data collected by professional agencies for both lakes monitored in MSCWMO to determine trends for TP, Secchi, and chl- α ($p < 0.05$). Lily Lake had a statistically significant improving trend for TP, average Secchi disk transparency, and chl- α . Lily Lake had an average summertime TP concentration of 0.021 mg/L, which is higher than 2024 average of 0.017 (Figure 2). All nine summertime results met the MPCA lake nutrient impairment standard for TP. The 2025 average summertime concentration of chl- α was 3.8 $\mu\text{g/L}$, lower than the 4.5 $\mu\text{g/L}$ measured in 2024 (Figure 3). All nine summertime water quality results for chl- α met the MPCA lake impairment standard (APPENDIX A). Lily Lake had an average summertime TKN concentration of 0.56 mg/L in 2025, which is higher than the average of 0.53 mg/L in 2024 (Figure 4). Secchi disk readings were measured in 2025 with a summertime average of 3.91 meters (Figure 5), with all nine summertime water quality readings meeting the MPCA lake standard for Secchi disk transparency (APPENDIX A). Lily Lake received an A grade in 2025, matching the A it received in 2024. Temperature and DO profiles indicate that Lily Lake exhibited thermal stratification during the summer months with the thermocline between 4 and 5 meters; therefore, the lake was less likely to completely mix throughout the summer. The elevation was above the OHW for the entire monitoring season, with the highest recorded level of 846.23 ft. occurring on 6/30/2025 and the lowest recorded level of 845.37 ft. occurring on 5/19/2025. A summary of all lake results is presented in APPENDIX A.

2. MCKUSICK LAKE

A two-tailed Kendall's Tau analysis based on data collected by professional agencies showed that McKusick Lake has statistically significant ($p < 0.05$) improving trends for TP and average Secchi transparency, and no trend for chl- α . The McKusick Lake summertime average TP concentration in 2025 was 0.074 mg/L, which is higher than the 0.064 mg/L observed in 2024

(Figure 2). Five of the nine summertime samples collected in 2025 did not meet the MPCA shallow lake standard for TP (APPENDIX A). McKusick Lake had a summertime average chl- α concentration of 10.8 $\mu\text{g/L}$, which is lower than the chl- α average of 15.6 $\mu\text{g/L}$ from 2024 (Figure 3). One of the nine summertime samples collected in 2025 did not meet the MPCA shallow lake standard for chl- α . The average summertime TKN concentration in 2025 was 0.76 mg/L, lower than the 0.79 mg/L in 2024 (Figure 4). The 2025 summertime average water transparency measured by Secchi disk was 1.93 meters (Figure 5). All nine summertime Secchi disk readings in 2025 met the MPCA shallow lake impairment standard. McKusick Lake received a grade of a C+ in 2025, the same grade it received in 2024. No temperature and DO profiles were collected, so the occurrence of thermal stratification in the deepest part of the lake cannot be determined. A majority of McKusick Lake is very shallow and does not stratify, and therefore is likely to have mixed throughout the summer. The elevation of McKusick Lake remained above the OHW for the entire monitoring season, reaching its highest recorded level of 855.43 ft. on 6/30/2025 and the lowest recorded level of 854.43 ft. on 9/8/2025. A summary of all lake results is presented in APPENDIX A.

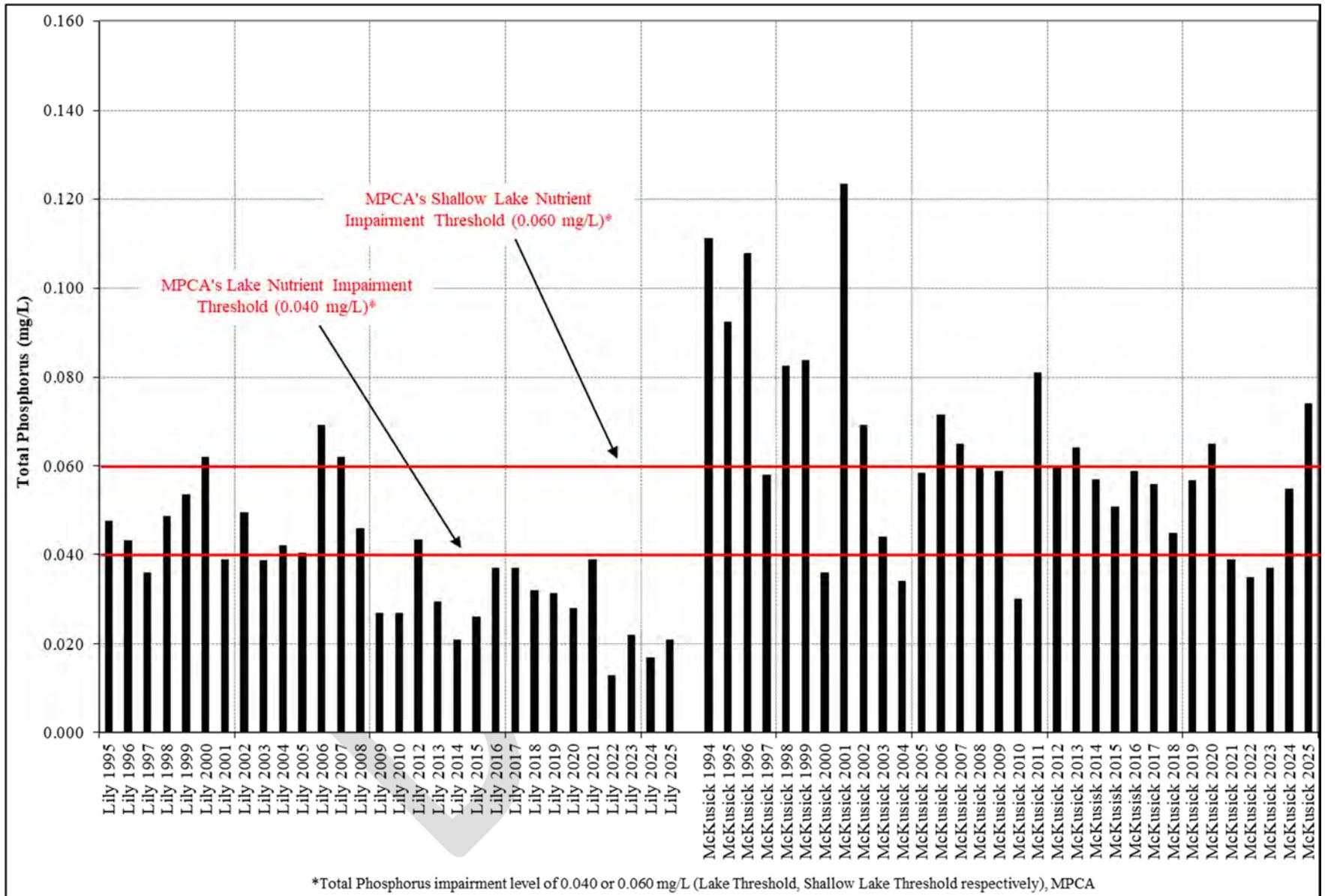


Figure 2. MSCWMO Historic Summer Average Total Phosphorus

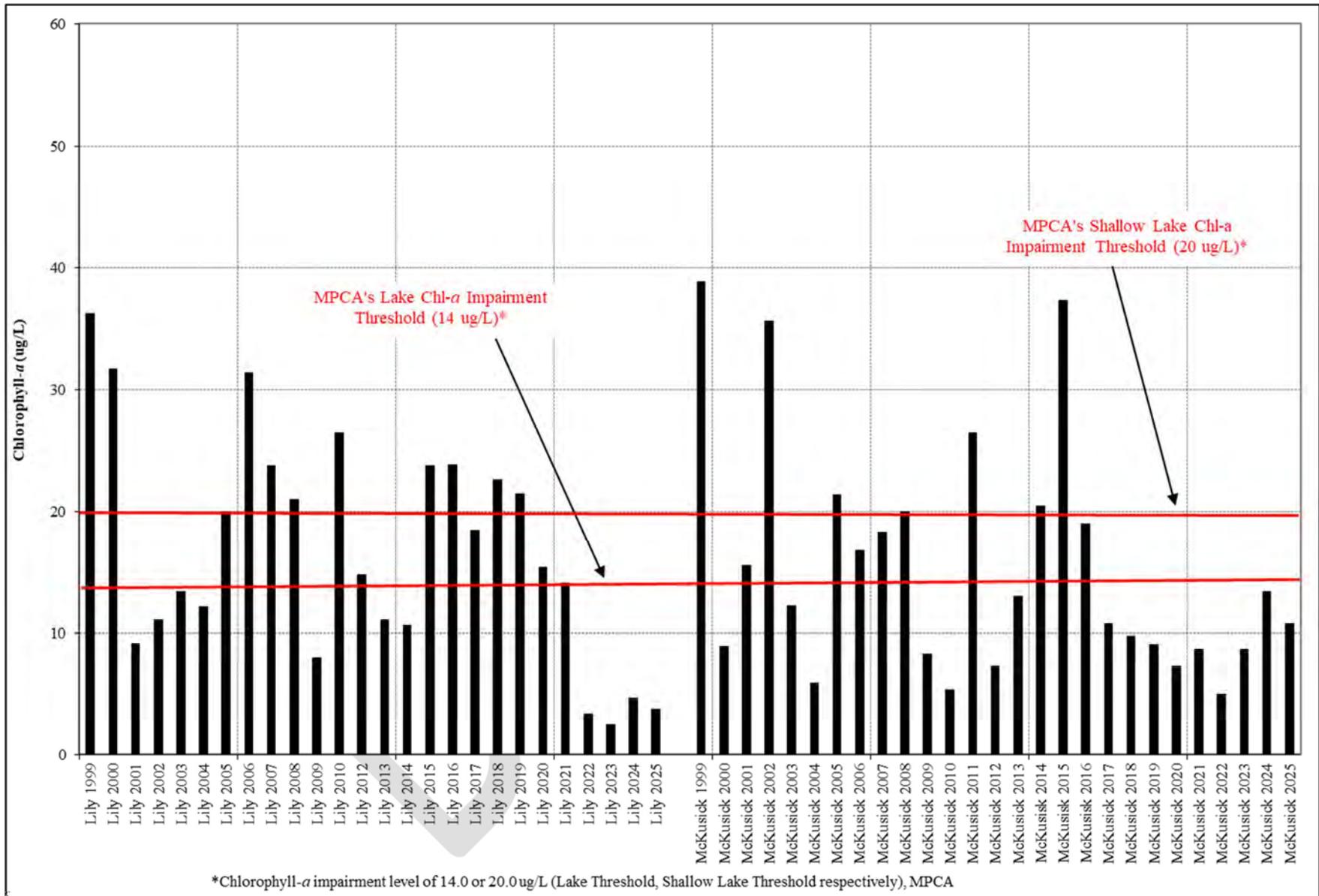


Figure 3. MSCWMO Historic Summer Average Chlorophyll-a

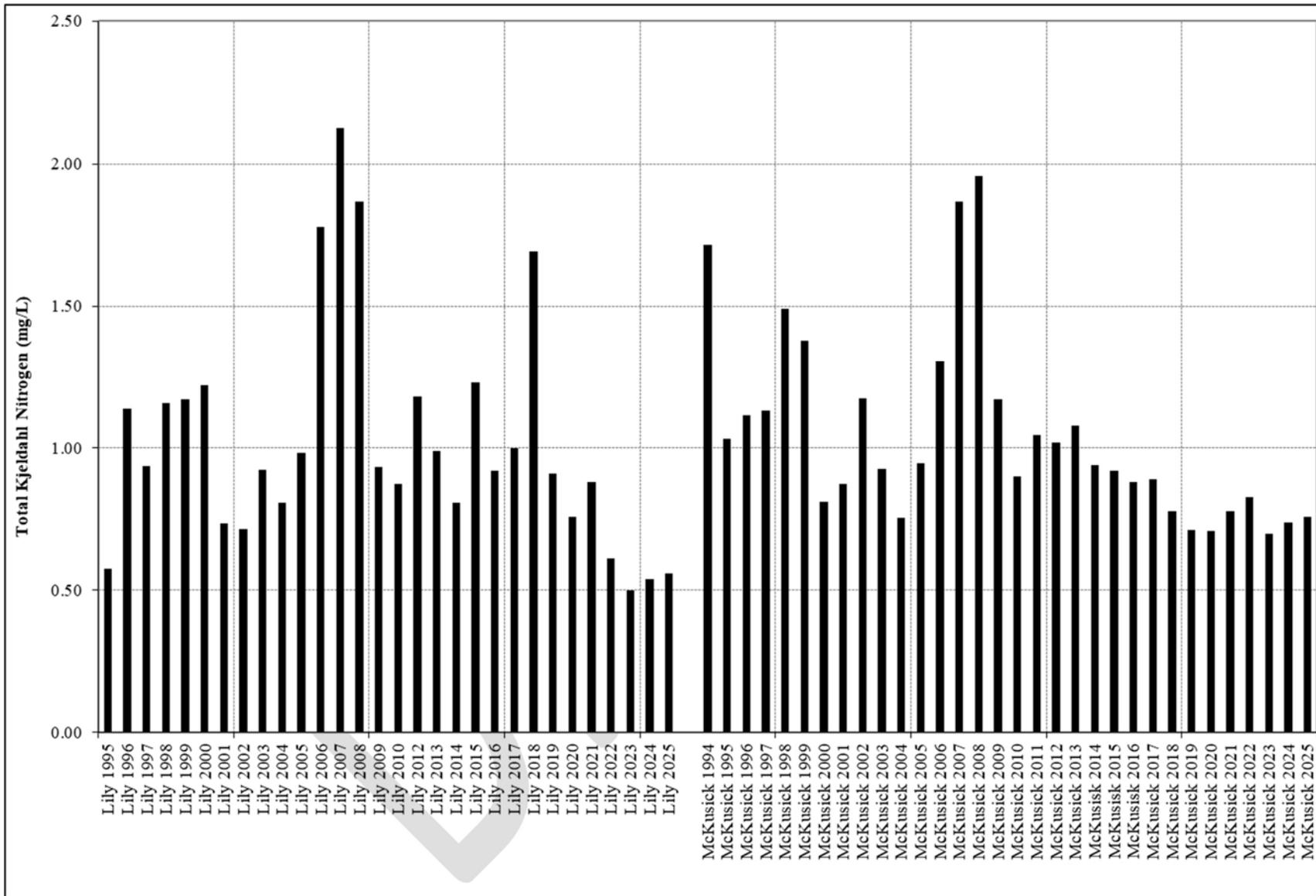


Figure 4. MSCWMO Historic Summer Average Total Kjeldahl Nitrogen

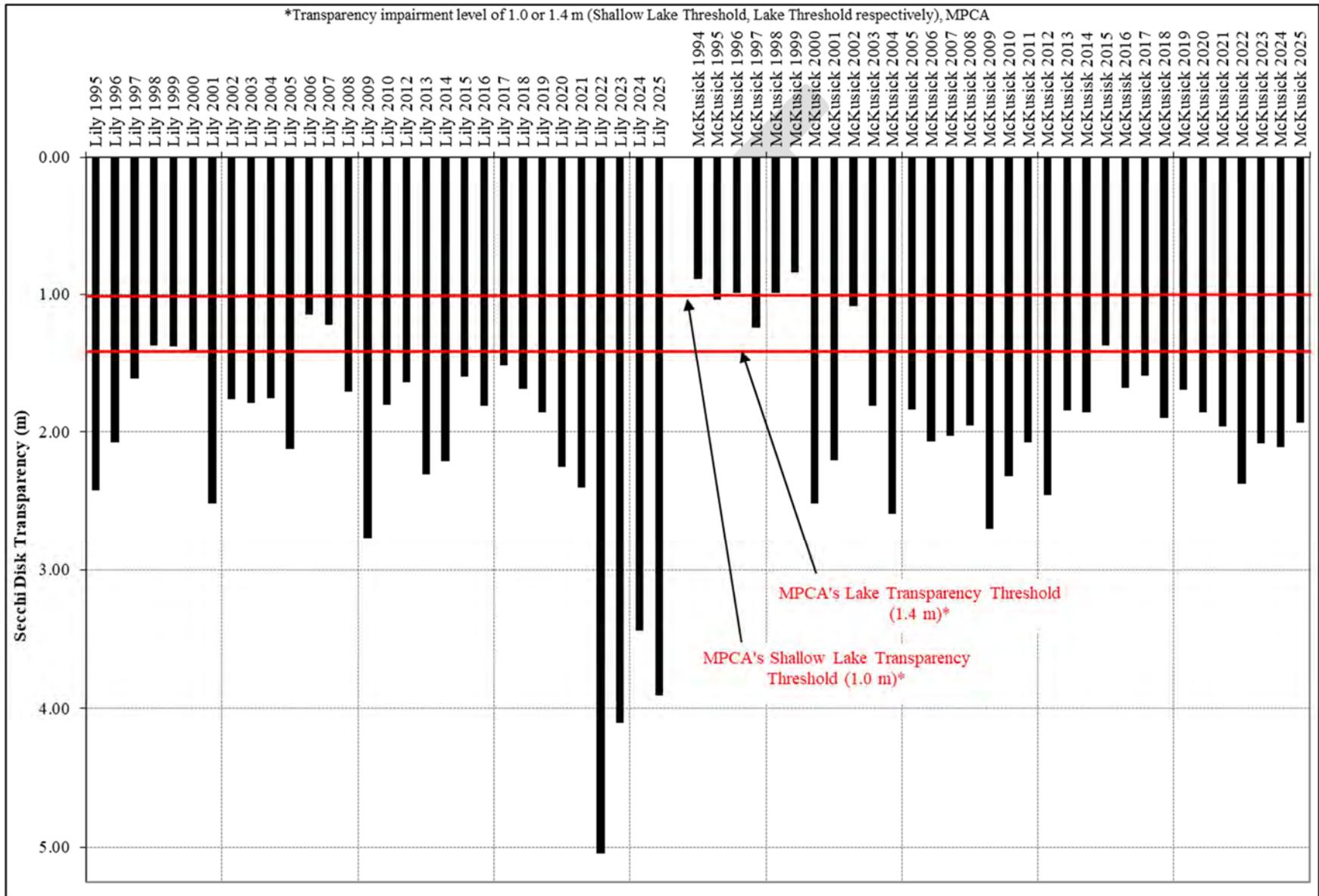


Figure 5. MSCWMO Historic Summer Average Secchi Disk Transparency

STREAM MONITORING

A. PERRO CREEK MONITORING

The goal of monitoring Perro Creek in 2016-2017 was to identify where the greatest contribution of nutrients and sediment to the St. Croix River was occurring. Monitoring continued in 2018 and 2019 to further refine previous observations. In 2020 water monitoring activities were reduced on Perro Creek and no traditional water quality samples were collected. Beginning in 2021, and continuing through 2025, water quality sampling was conducted on Perro Creek at the Diversion Structure site by collecting in-stream grab samples during baseflow periods and using an automated sampler to collect flow-weighted composite storm samples. The automated sampler allowed for multiple samples to be collected during storm events, which were then combined into one sample representing the storm event. This methodology can provide more accurate data for calculating nutrient loads during storm events than grab samples alone. Continuous 15-minute stage and velocity data were collected at the site and in the Diversion Structure Overflow from 5/8/25 – 10/28/25. Discharge was calculated using an area/velocity relationship, and the recorded discharge in 2025 to the St. Croix River was 26,453,270 cubic feet (Table 3).

Thirteen water quality samples were collected in 2025 and analyzed for total phosphorus, dissolved phosphorus, and total suspended solids (Table 4). Six baseflow grab samples were collected May – October, along with field measurements for temperature, dissolved oxygen, pH, and specific conductivity. Seven storm composite samples were collected May – August. The 2025 baseflow average TP concentration was 0.032 mg/L, which is similar to the baseflow averages for 2018-2021 and 2024 (Table 5). The baseflow average TSS concentration was 3 mg/L, which is similar to the baseflow averages since 2018. The average TP concentration from storm samples collected in 2025 was 0.226 mg/L, which is similar to 2023 and is lower than 2024 (Table 5). The average TSS concentration from storm samples was 222 mg/L, which is similar to 2021 and the highest since monitoring began in 2016. TP and TSS loads to the St. Croix River were calculated for both the creek and the Diversion Structure Overflow during

monitored periods. The TP load in 2025 was 75.7 lbs. (Table 3 and Figure 6) and the TSS load was 29,152 lbs. (Table 3 and Figure 7).

Perro Creek is listed as impaired for TSS on the MPCA's 303(d) Impaired Waters List. The stream is in the Central River Nutrient Region and the MPCA standard is 30 mg/L for class 2B waters. The MPCA's protocols for assessments are as follows:

“A stream is considered to exceed the standard for TSS if 1) the standard is violated more than 10% of the days of the assessment season (April through September) as determined from a data set that gives an unbiased representation of conditions over the assessment season, and 2) at least three measurements violate the standard. A stream is considered to meet the standard for TSS if the standard is met at least 90% of the days of the assessment season. A designation of meeting the standard for TSS generally requires at least 20 suitable measurements from a data set that gives an unbiased representation of conditions over at least two different years. However, if it is determined that the data set adequately targets periods and conditions when exceedances are most likely to occur, a smaller number of measurements may suffice.”

Perro Creek is also listed as impaired for *E. coli* bacteria on the MPCA's 303(d) Impaired Waters List. *E. coli* is used as an indicator in waterbodies for the possible presence of fecal contamination, including pathogens. The primary source of *E. coli* is human and animal waste, making high *E. coli* presence a concern for human health. A summary by month is found in Table 6. The MPCA standard is defined as follows, and is based on the latest ten years of data as per MPCA protocol:

“Not to exceed 126 organisms per 100 milliliters as a geometric mean of not less than five samples representative of conditions within any calendar month, nor shall more than ten percent of all samples taken during any calendar month individually exceed 1,260 organisms per 100 milliliters. The standard applies only between April 1 and October 31.”

Table 3. Perro Creek 2025 Monitored Discharge and TP & TSS Loading

Site	Date range	Discharge (cf)	Discharge (ac-ft)	Percent of Total Discharge	TP Load (lbs)	Percent of TP Load	TSS Load (lbs)	Percent of TSS Load
Perro at Diversion Structure Baseflow ¹	5/8/25 - 10/28/25	22,167,406	509.16	84%	44.0	58%	4,151	14%
Perro at Diversion Structure Stormflow	5/8/25 - 10/28/25	1,167,110	26.81	4%	15.9	21%	14,627	50%
Perro at Diversion Overflow Baseflow ^{1,2}	5/8/25 - 10/28/25	2,389,234	54.88	9%	4.7	6%	447	2%
Perro at Diversion Overflow Stormflow ²	5/8/25 - 10/28/25	729,520	16.76	3%	11.0	15%	9,926	34%
Total to the St. Croix River		26,453,270	607.60	100%	75.7	100%	29,152	100%

¹ 7/9/25 results were excluded from averages used for load calculations

² Result averages from samples collected in-stream at the Diversion Structure were used for Diversion Overflow loading calculations

Table 4. Perro Creek at Diversion Structure 2025 Water Quality Results

Sample Type	Start	End	TP (mg/L)	Dissolved P (mg/L)	TSS (mg/L)	E. coli (mpn/100 mL)	Temperature (°C)	DO (mg/L)	pH	Specific Conductivity (umhos/cm)
Base Grab ¹	5/12/25 15:07	5/12/25 15:07	0.046	0.017	<3	105	23.8	7.45	8.52	418
Base Grab	6/11/25 9:15	6/11/25 9:15	0.046	0.018	6	201	20.5	8.10	8.45	409
Base Grab ²	7/9/25 10:19	7/9/25 10:19	0.058	0.032	9	1733	24.2	7.34	8.14	425
Base Grab	8/12/25 9:38	8/12/25 9:38	0.026	0.014	3	276	22.9	6.71	8.10	404
Base Grab ¹	9/4/25 13:04	9/4/25 13:04	0.021	0.014	<3	178	16.5	9.23	8.31	472
Base Grab	10/8/25 11:01	10/8/25 11:01	0.020	0.012	3	76	13.8	10.01	8.32	508
Storm Composite	5/19/25 20:03	5/20/25 23:41	0.094	0.019	28					
Storm Composite	6/25/25 14:45	6/25/25 15:44	0.311	0.057	275					
Storm Composite	7/16/25 2:26	7/16/25 3:46	0.093	0.035	137					
Storm Composite	7/23/25 14:23	7/23/25 14:59	0.327	0.045	575					
Storm Composite	7/27/25 20:40	7/27/25 21:25	0.304	0.074	189					
Storm Composite	8/9/25 4:51	8/9/25 7:05	0.323	0.155	266					
Storm Composite	8/16/25 7:32	8/16/25 9:14	0.130	0.032	81					

¹ TSS results that are less than the Reporting Limit were divided in half for calculating averages.

² Results excluded from averages. Sample was collected shortly after a spike in stream stage.

Table 5. Perro Creek Historical TP and TSS Averages and Ranges

Perro @ Diversion Sample Type	2016	2017	2018	2019	2020	2021 ^b	2022 ^b	2023 ^c	2024	2025
Baseflow Samples	8	6	8	6	No Samples	6	5	6	7	6
Stormflow Samples	5	5	4	3		8	9	5	5	7
TP (mg/L) - Baseflow Average	0.051	0.046	0.036	0.034		0.035	0.015	NA	0.034	0.032
Baseflow Range	~0.023 - 0.090	<0.020 - 0.120	0.020 - 0.058	0.021 - 0.065		0.024 - 0.210	<0.020 - 0.065	<0.05	0.022 - 0.054	0.020 - 0.058
TP (mg/L) - Stormflow Average	0.435	0.108	0.124	0.372		0.427	0.279	0.216	0.283	0.226
Stormflow Range	0.126 - 1.330	~0.023 - 0.218	0.047 - 0.252	0.133 - 0.597		0.185 - 0.862	<0.020 - 0.524	0.089 - 0.370	0.040 - 0.396	0.093 - 0.327
TSS (mg/L) - Baseflow Average	16	12	4	2		2	3	2	3	3
Baseflow Range ^a	<1 - 77	~1 - 60	1 - 16	1 - 3		1 - 33	<3 - 18	<3 - 18	<3 - 6	<3 - 9
TSS (mg/L) - Stormflow Average	118	36	20	58	217	86	102	208	222	
Stormflow Range	32 - 308	12 - 76	8 - 31	21 - 97	75 - 429	3 - 154	10 - 243	5 - 327	28 - 575	

^a Beginning in 2022 the laboratory changed TSS reporting to as low as the Reporting Limit (3 mg/L) rather than the Method Detection Limit (1 mg/L)

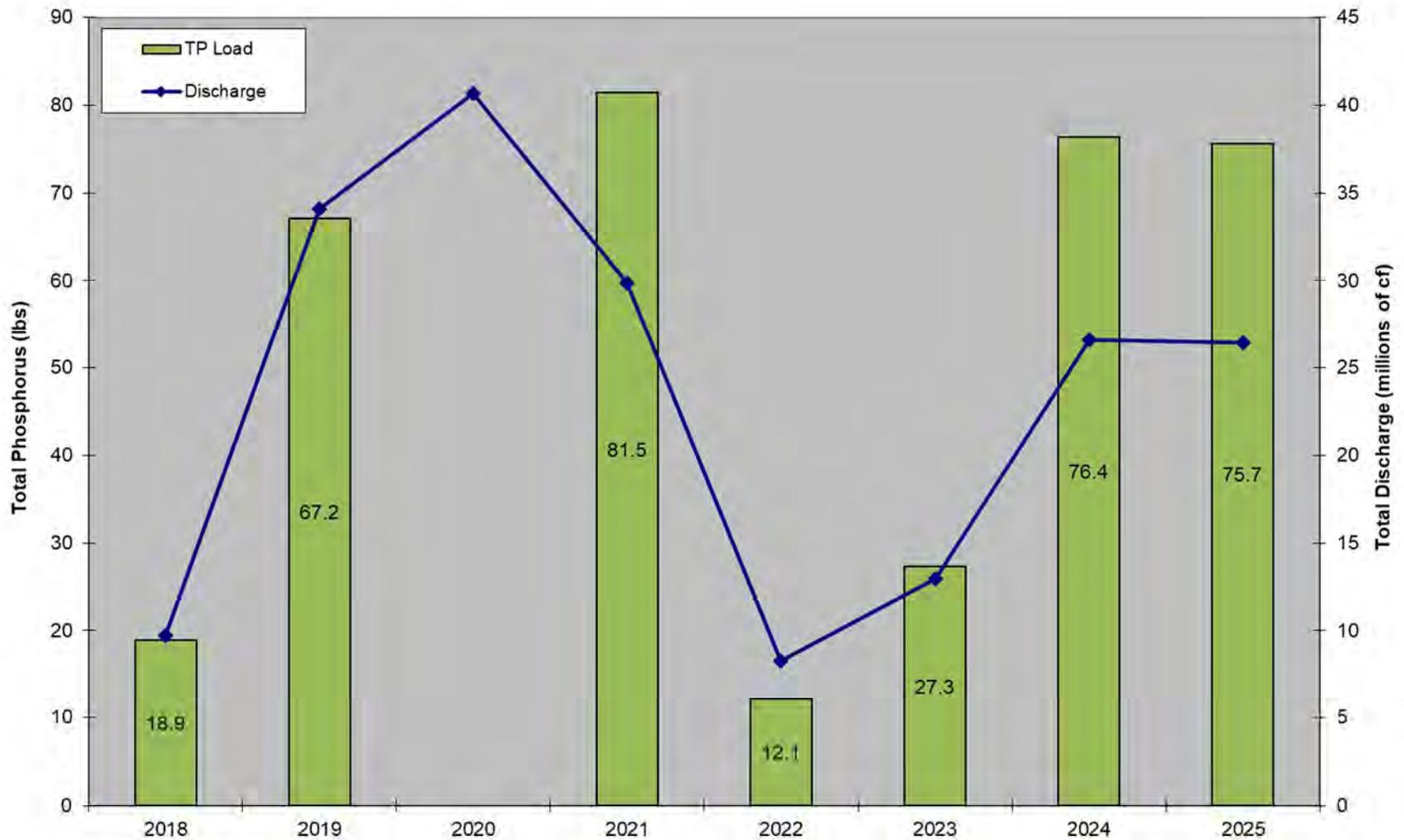
^b Results from base composite sample excluded from averages (Sampled during initial opening of Perro Pond outlet)

^c In 2023 the laboratory reported TP results to as low as the Reporting Limit (0.05 mg/L) rather than the Method Detection Limit (0.02 mg/L). All baseflow results were <0.05 mg/L

Table 6. Monthly Geometric Means of *E. coli*- Latest Ten Years

Site	April	May	June	July	August	September	October
Perro at Diversion Structure ¹	Insufficient Data	108	297	266	168	405	145
	Exceeds geometric mean of 126 #/100mL from not less than 5 samples in a calendar month, collected in last 10 yrs						

¹ >10% of samples collected in the last 10 years exceeded 1,260 #/100mL



2021 was the first year where automated storm samples were collected instead of storm grab samples.

Figure 6. Perro Creek at Diversion Structure Monitored Discharge and Total Phosphorus Load

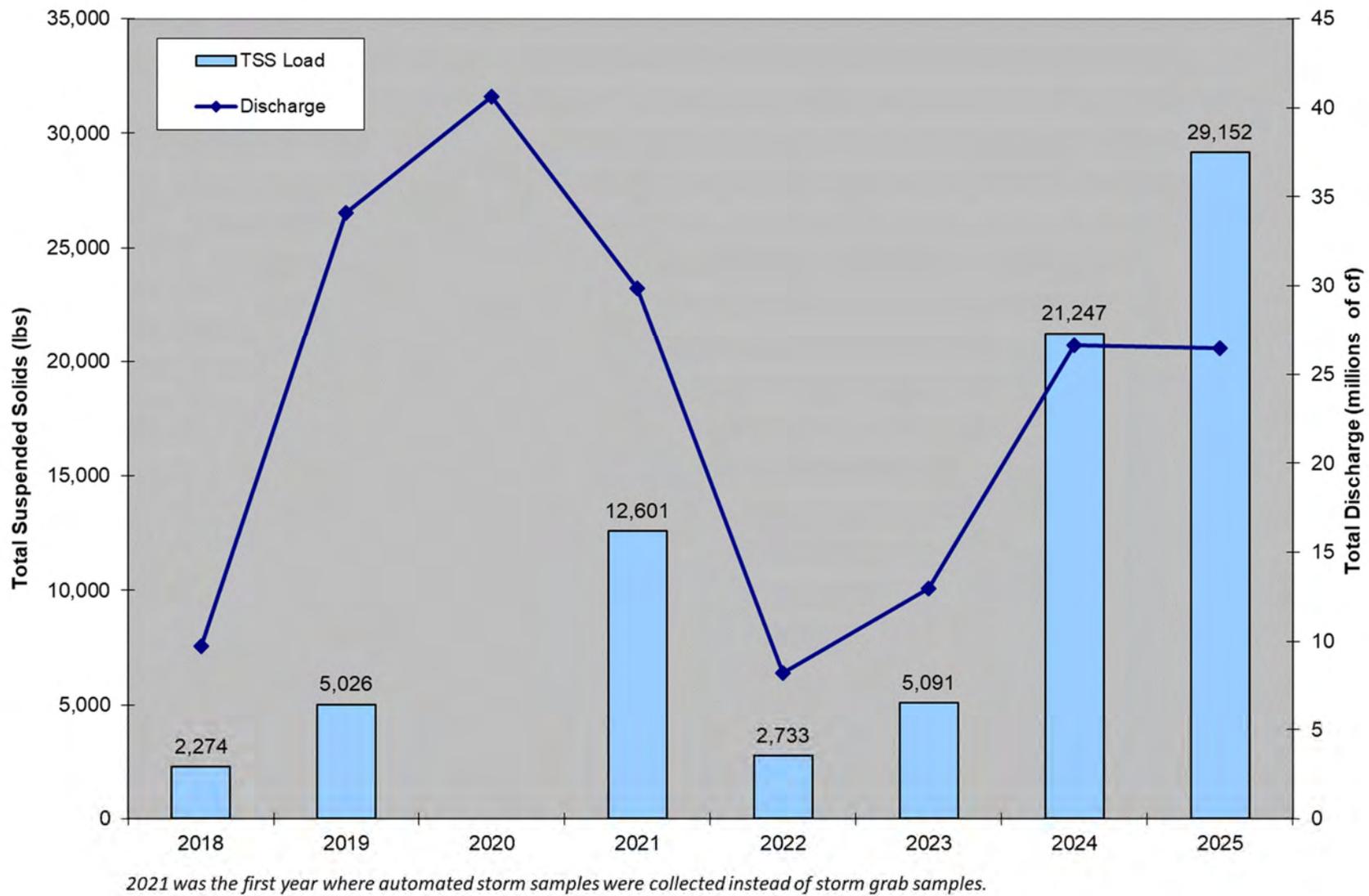


Figure 7. Perro Creek at Diversion Structure Monitored Discharge and Total Suspended Solids Load

B. BROWN'S CREEK DIVERSION STRUCTURE

As part of Brown's Creek Watershed District's long-term monitoring, the WCD collected grab samples and automated flow-weighted samples during both baseflow and storm event conditions at the Brown's Creek Diversion Structure in 2025. The City of Stillwater constructed the diversion structure in June of 2003, as part of the completion of the Trout Stream Mitigation Project (TSMP). It has been functioning to divert water from the 1,800-acre annexation area away from Brown's Creek through McKusick Lake, and ultimately to the St. Croix River. While this diversion structure keeps the warmer urban stormwater runoff from the southern tributary out of the temperature and nutrient sensitive Brown's Creek Ravine, it means that this is discharged to McKusick Lake and can affect the lake water quality. Data collected at this site by the WCD includes continuous stage and total discharge, and water quality samples analyzed for nutrients, sediment, and metals. Discharge in 2025 was 60,305,225 cubic feet, which is the fifth highest recorded since monitoring began in 2006 and was a decrease from 2024 (Table 7). Stream flow and chemistry data from 2025 are found in Table 7 and Table 8.

The TP load to McKusick Lake was 416 lbs., or 0.108 lbs. of phosphorus per acre of watershed land, and the TSS load was 73,469 lbs. of sediment, or 19.06 lbs. per acre (Table 7). In spite of wetter than average conditions, the TP and TSS loads were the sixth and second lowest, respectively, since monitoring began in 2006. BCWD identified erosional head cuts in the drainage tributaries as the source of the excessive loading rates. Rock vanes and stabilization projects have since been implemented to reduce erosion and restore floodplain connectivity. Beginning in 2024 beavers also constructed a series of dams upstream of the site, further trapping sediment and phosphorus by reducing flow rate, allowing settling of sediments, and improving floodplain connectivity. The high total discharge and low nutrient loads provide evidence the restoration projects and natural processes resulting from beaver activity may be improving water quality conditions.

The calculation of MPCA metal standards is described in the Minnesota Administrative Rules Part 7050.0222 and are divided into three categories of toxicity; chronic, maximum, and final acute value (FAV). The chronic standard protects organisms from long-term exposure to a pollutant with minimal effects, the maximum standard from short-term exposure with no or little

mortality, and the FAV is the concentration at which mortality can be expected. In 2025 one sample result from the Brown's Creek Diversion Structure exceeded the chronic standard for lead and no other samples exceeded any metals standards. The number and severity of exceedances of metals standards were tied with two other years, 2022 and 2014, for the lowest number observed since metals analysis began at this site in 2007. Improvements made to reduce erosion and allow the natural settling of sediments that may have metals bound to them in beaver impoundments are the most likely drivers of this. In most cases, severe exceedances of metals are associated with extreme TSS concentrations.

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Table 7. Brown’s Creek Diversion Historic Annual Discharge and Loading- Latest Ten Years

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Brown’s Creek Diversion Structure										
Discharge (cf)	70,780,581	39,625,672	45,453,990	112,468,888	68,165,935	46,792,341	41,610,620	35,622,586	72,832,083	60,305,225
Total pounds of Phosphorus exported	1,574	784	964	3,598	760	446	389	367	573	416
TP (lbs/ac/yr)	0.408	0.203	0.250	0.933	0.197	0.116	0.101	0.095	0.149	0.108
Total pounds of TSS exported	1,533,496	596,382	505,314	2,707,186	246,238	401,069	75,429	74,875	230,855	73,469
TSS (lbs/ac/yr)	397.79	154.70	131.08	702.25	63.87	104.01	19.57	19.42	59.88	19.06

Table 8. Brown’s Creek Diversion 2025 Chemistry Results

Sample Type	Start	End	TSS (mg/L)	VSS (mg/L)	TKN (mg/L)	TP (mg/L)	Dissolved P (mg/L)	Copper (ug/L)	Nickel (ug/L)	Lead (ug/L)	Zinc (ug/L)	Cadmium (ug/L)	Chromium (ug/L)	Chloride (mg/L)	Nitrite + Nitrate N (mg/L)	Ammonia Nitrogen (mg/L)	Hardness (mg/L CaCO3)
Storm Composite	5/20/2025 6:52	5/21/2025 0:40	94	24	1.64	0.280	0.061	3.640	2.910	1.570	10.100	0.130	<2.500	31.4	0.31	<0.06	121
Storm Composite	6/13/2025 0:52	6/13/2025 8:32	30	8	1.10	0.176	0.041	1.800	1.710	0.774	5.450	0.117	<2.500	39.8	0.28	<0.06	147
Storm Composite	6/25/2025 13:29	6/25/2025 22:20	70	24	1.47	0.281	0.076	2.820	2.300	1.130	7.840	0.117	<2.500	26.0	0.34	<0.06	94
Storm Composite	7/27/2025 20:46	7/28/2025 4:47	161	41	2.11	0.470	0.074	3.850	3.580	2.270	14.700	0.128	3.270	24.8	0.37	<0.06	92
Storm Composite	8/9/2025 5:30	8/9/2025 9:20	283	68	3.00	0.546	0.065	5.520	5.020	5.000	22.100	0.166	4.590	37.9	0.40	<0.06	132
Storm Composite	8/16/2025 7:29	8/17/2025 23:58	166	61	2.11	0.361	0.067	3.970	3.660	2.310	12.900	0.148	2.920	36.6	<0.20	<0.06	98
Base Grab	5/1/2025 14:09	5/1/2025 14:09	<3	<3	0.47	0.051	0.023	<1.000	0.715	<0.500	6.040	<0.100	<2.500	46.4	<0.20	<0.06	155
Base Grab	5/12/2025 14:28	5/12/2025 14:28	<3	<3	0.60	0.074	0.032	1.840	1.890	<0.500	<5.000	<0.100	<2.500	52.8	<0.20	0.06	210
Base Grab	6/10/2025 13:32	6/10/2025 13:32	10	5	0.65	0.128	0.059	<1.000	0.642	<0.500	<5.000	<0.100	<2.500	24.4	0.28	0.07	209
Base Grab	7/10/2025 10:03	7/10/2025 10:03	3	<3	0.53	0.084	0.054	<1.000	0.573	<0.500	<5.000	<0.100	<2.500	70.6	<0.20	0.08	107
Base Grab	8/4/2025 14:36	8/4/2025 14:36	<3	<3	0.58	0.064	0.040	<1.000	0.540	<0.500	<5.000	<0.100	<2.500	62.4	<0.20	0.06	108
Base Grab	9/4/2025 10:38	9/4/2025 10:38	3	<3	0.47	0.057	0.026	<1.000	0.505	<0.500	<5.000	<0.100	<2.500	47.8	0.24	<0.06	152
Base Grab	10/8/2025 9:33	10/8/2025 9:33	5	3	0.54	0.078	0.018	<1.000	0.708	<0.500	<5.000	<0.100	<2.500	48.2	0.31	<0.06	205
			Exceeds Water Quality Standard														
			No Exceedance Determinable														
			Exceeds Chronic Standard														
			Exceeds Max Standard														
			Exceeds Final Acute Standard														

MSCWMO: CONCLUSIONS AND RECOMMENDATIONS

A. LAKES

Lake monitoring in MSCWMO continues to provide valuable baseline water quality information. To determine the health of the lakes in MSCWMO, physical and chemical parameters are compared on a year-to-year basis and to other lakes in the region. Water quality in a lake depends on a number of different variables such as size of the contributing watershed, external nutrient sources, depth of the lake, and the current amount of nutrients available to be periodically released from the lake bottom. Low water quality ratings of MSCWMO lakes are most likely due to long-term contribution of urban runoff (Lily Lake) or due to the sensitivity of shallow lakes being prone to summertime mixing (McKusick Lake). Shallow lakes typically exist in a low algal production, clear-water state with abundant aquatic macrophytes or in a high-algal production, turbid water state. Shallow lakes may not completely stratify in the summer, and therefore have the capability to continually mix throughout the summer. That mixing causes phosphorus to be distributed throughout the water column, causing more frequent and heavy algal blooms. This is unlike deeper, stratified lakes where phosphorus below the thermocline is not available for primary production.

The MPCA previously listed both Lily and McKusick Lake on the 303(d) Impaired Waters list for nutrient/eutrophication impairment. McKusick Lake was delisted in 2012 and Lily Lake was delisted in 2022, because both lakes were meeting water quality standards due to restoration activities within their watersheds.

Summertime (June-September) TP, chlorophyll- α , and Secchi disk transparency averages have remained relatively consistent over the last thirty years in Lily Lake with the exceptions of 1995, 2001, 2009, 2013, and 2014 where overall water quality dramatically improved (Figure 2, Figure 3, and Figure 5). In 2001 phosphorus and chl- α levels dropped and the lake grade improved significantly. In 2006-2008, summer average TP, chl- α , and Secchi disk transparency deteriorated when compared to the averages seen from 2001 to 2005. In 2025 Lily Lake received a grade of an A, matching the grade from 2023-2024 and well above the long-term average lake grade of a C+.

The cause of these one-year increases (1995, 2001, 2009, 2013, and 2014) in water quality is presently unknown, and there may be several possible explanations, which could be investigated further in the future. Lily Lake has received herbicide and algaecide treatments from 1995-2011 and 2016-2018. In 2018-2021, the City of Stillwater and the Lily Lake Association did not request any large-scale herbicide and algaecide treatments but individual landowner treatments have occurred. In 2010, a native buffer planting was installed at the public access and the Lily Lake watershed underwent a subwatershed assessment. As a result, fifteen raingardens were constructed in the Lily Lake watershed from 2011-2012, six large raingardens were installed in 2014, a gully stabilization project installed at Lakeview Hospital discharging to Brick Pond in 2017, and a large gully stabilization and stormwater treatment system discharging to Brick Pond in 2018. Another raingarden was installed in 2019. Construction of a large infiltration basin in the Greeley storm sewer catchment subwatershed was completed in 2022 and the lake was treated with alum on May 24, 2022. The effects of these BMPs may have been seen from 2012 to 2025 monitoring seasons with the 2016-2025 seasons having a statistically significant ($p < 0.05$) improving trend for total phosphorus. Continued monitoring is needed to show changes to long-term trends due to the implementation of these BMPs. In 2019, the Lily Lake Phosphorus Reductions for Delisting grant was secured. More information about the Lily Lake Impaired Waters Delisting Road Map can be found at <http://www.mscwmo.org/subwatershed-assessments>.

A subwatershed assessment was conducted on the McKusick Lake watershed in 2010. In 2011, six raingardens were constructed as a result of the subwatershed assessment. With renewed funding, seven additional raingardens were planned to be installed in the McKusick Lake watershed in 2013 but were not constructed due to issues with utilities; instead, six larger raingardens were installed in 2014. The impacts of previously installed raingardens may have been seen in 2017-2025 with statistically significant ($p < 0.05$) improving trends for average TP and average Secchi disk transparency. For more information on the McKusick Lake subwatershed assessment refer to the McKusick Lake Stormwater Retrofit Assessment found at <http://www.mscwmo.org/subwatershed-assessments>.

B. STREAMS

Water quality sampling continued on Perro Creek at the Diversion Structure in 2025. The wet summer led to a similar total discharge and TP load, and an increase in TSS load, when compared to 2024. Stormflow periods accounted for only 7% of the monitored discharge to the St. Croix River but 36% of the TP load and 84% of the TSS load occurred during these periods in 2025. For comparison, stormflow periods accounted for a little less in 2024: 5% of the monitored discharge, 30% of the TP load, and 80% of the TSS load. Flow-weighted composite samples should continue to be collected to more accurately calculate TP and TSS loads during storm events. As in 2024, sediment and debris was present in the diversion structure channel for the majority of the monitoring season, which made the streambed within the structure artificially high. This may have affected the automated storm sampling because it allowed more stormwater to flow through the overflow pipe rather than the open channel stream, which is where the sampling equipment is located. The diversion structure should be kept clear of excessive sediment and debris to ensure this doesn't become a problem.

Perro Creek is listed as impaired for TSS on the MPCA's 303(d) Impaired Waters List and is assessed using an unbiased dataset. Flow-weighted composite samples are considered biased towards higher flow periods because more samples are collected during the higher flows, and these samples are therefore not used for TSS assessments. In 2025 there were no TSS results from grab samples collected April – September that exceeded the MPCA standard of 30 mg/L for class 2B waters. Water quality grab samples could be collected at Perro Creek during different levels of flow to provide an unbiased dataset for assessing the stream for TSS impairment.

Perro Creek is listed as impaired for *E. coli* bacteria on the MPCA's 303(d) Impaired Waters List. The 10-year geometric means in June – October exceed the MPCA standard, while the May geometric mean meets the standard. Samples collected in 2025 in July and August were the only samples higher than the monthly geometric means. In 2024, August and September samples were the only ones higher than the monthly geometric means. Monthly *E. coli* samples should continue to be collected from May through October at Perro Creek to expand the dataset for calculating monthly geometric means.

APPENDIX A – LILY LAKE AND MCKUSICK LAKE WATER QUALITY DATA

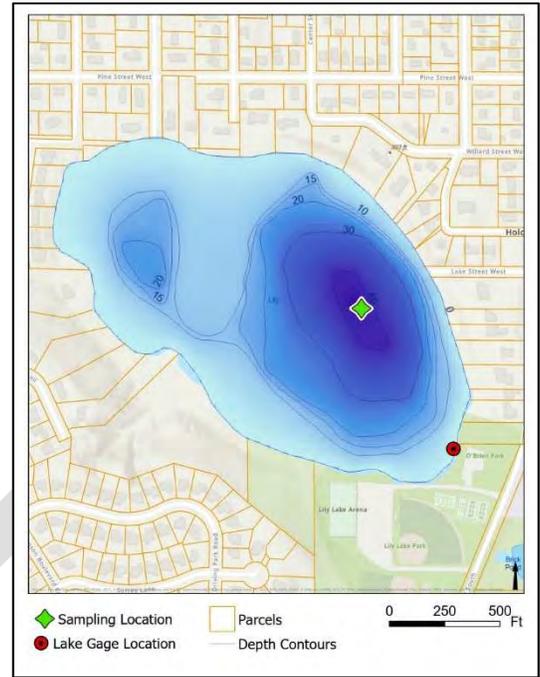
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LILY LAKE

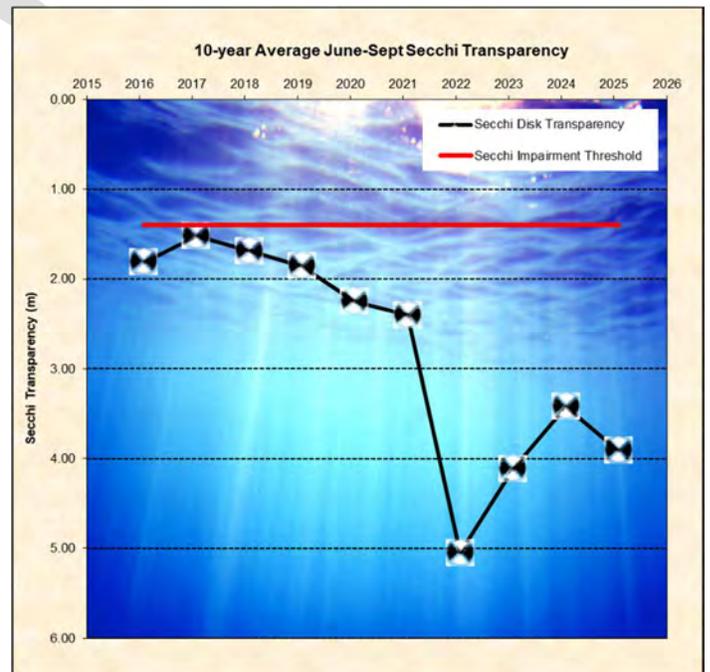
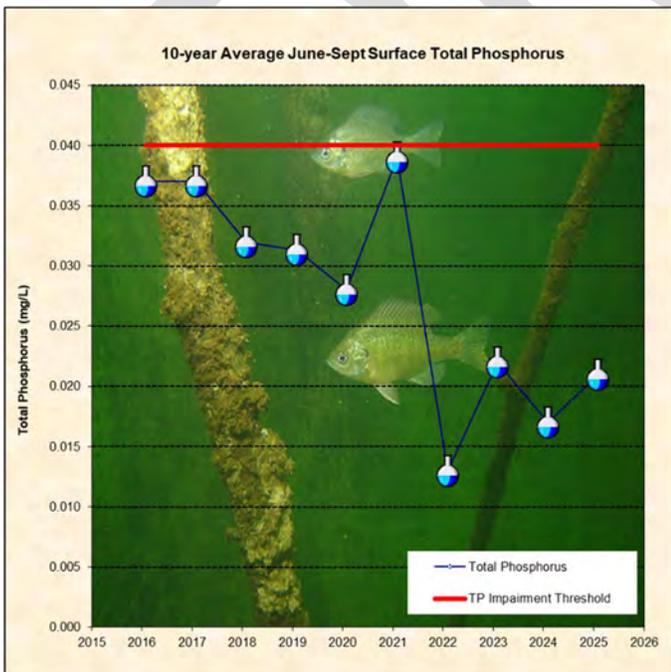
2025 Lake Grade: A

- DNR ID #: 820023
- Municipality: City of Stillwater
- Location: NE ¼ Section 32, T30N-R20W
- Lake Size: 35.90 Acres
- Maximum Depth (2025): 47 ft.
- Ordinary High Water Mark: 844.8 ft.
- 55% Littoral
Note: Littoral area is the portion of the lake <15 ft. and dominated by aquatic vegetation.
- Publicly accessible



Summary Points

- Based on the chlorophyll- α results Lily Lake was considered mesotrophic in 2025, according to the Carlson Trophic State Index.
- Using a Kendall's Tau correlation test ($p < 0.05$) there is a statistically significant **improving** trend for average total phosphorus, average Secchi transparency, and average chlorophyll- α .
- The major land use is urban/residential.
- The lake stratified in 2025 with the thermocline around 4-5 meters deep.
- The lake was treated with alum on May 24, 2022.
- Lily Lake was delisted in 2022 for its impairment for nutrients on the Minnesota Pollution Control Agency's Impaired Waters List.
- Lab methodology was changed for 2023 total phosphorus sample analysis, as such no results were reported < 0.022 mg/L (April-mid September).

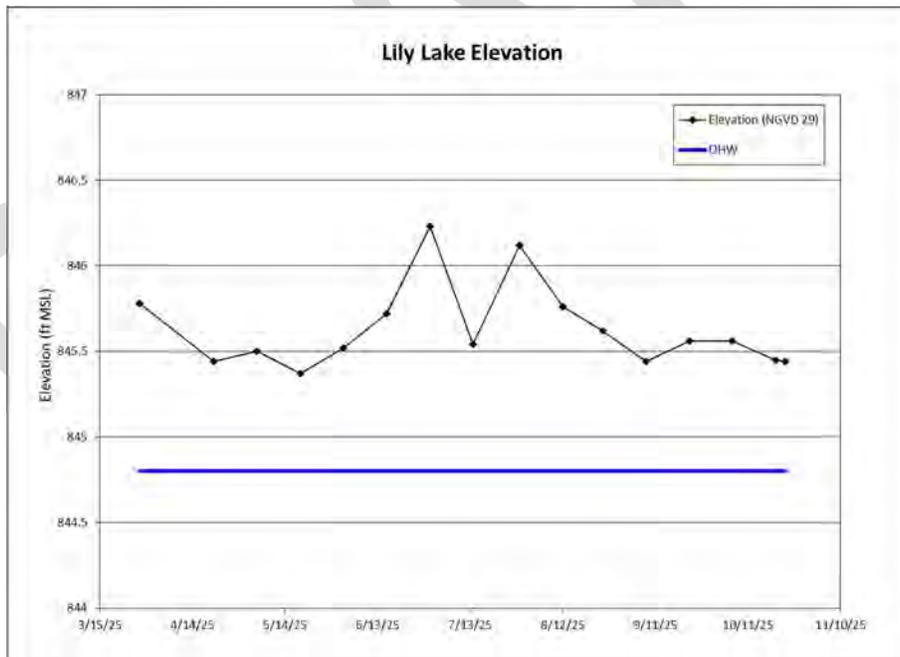


Date/Time	Total Phosphorus (mg/L)	Uncorrected Trichromatic Chlorophyll-a (ug/L)	Pheophytin-Corrected Chlorophyll-a (ug/L)	Total Kjeldahl Nitrogen (mg/L)	Secchi Disk Depth (m)	Surface Temperature (Celsius)	Surface Dissolved Oxygen (mg/L)	Chloride (mg/L)
4/21/2025 14:30	0.016	2.5	2.4	0.52	4.11	10.8	10.81	
5/5/2025 8:42	0.021	1.9	1.6	0.52	5.79	16.5	10.17	
5/19/2025 13:03	0.017	2.2	1.9	0.50	3.96	16.7	8.19	
6/2/2025 8:46	0.014	2.9	2.4	0.58	4.88	20.1	NA	
6/16/2025 8:42	0.028	2.7	1.3	0.72	3.96	19.7	7.82	
6/30/2025 8:52	0.021	4.7	3.5	0.50	3.66	24.1	8.29	
7/14/2025 8:47	0.020	4.7	3.7	0.53	3.66	26.4	7.62	
7/29/2025 8:04	0.017	2.8	2.4	0.51	3.66	27.0	6.46	96.0
8/12/2025 11:12	0.019	5.4	4.8	0.50	3.51	25.7	7.35	
8/25/2025 8:47	0.024	7.7	6.9	0.55	3.51	22.4	6.76	
9/8/2025 12:32	0.023	4.7	4.5	0.61	4.57	18.7	7.40	78.5
9/22/2025 8:41	0.019	5.9	5.1	0.56	3.81	22.1	8.10	
10/6/2025 11:23	0.017	6.5	6.1	0.50	3.66	20.1	7.12	
10/20/2025 8:53	0.016	5.9	5.1	0.50	4.11	14.4	7.46	
2025 Average	0.019	4.3	3.7	0.54	4.06	20.3	7.97	NA
2025 Summer Average	0.021	4.6	3.8	0.56	3.91	22.9	7.48	NA

Water quality thresholds are 0.04 mg/L TP, 14 µg/L CL-a, 1.4 m Secchi depth*
 Shallow lake water quality thresholds are 0.06 mg/L TP, 20 µg/L CL-a, 1.0 m Secchi depth*

	High	High Date	Low	Low Date	Average
2025 Elevation (ft)	846.23	6/30/2025	845.37	5/19/2025	845.63

*Data requirements and determinations of use assessment according to the MPCA's Guidance Manual for Assessing the Quality of Minnesota Surface Waters:
 "Samples must be collected over a minimum of 2 years and data used for assessments must be collected from June to September. Typically, a minimum of 8 individual data points for TP, corrected chlorophyll-a (chl-a corrected for pheophytin), and Secchi are required. Data used for phosphorus and chlorophyll-a calculations are limited to those collected from the upper most 3 meters of the water column (surface). If more than one sample is collected in a lake per day, these values are averaged to yield a daily average value. Following this step, all June to September data for the 10-year assessment window are averaged to determine summer-mean values for TP, corrected chl-a, and Secchi depth. These values are then compared to the standards and the assessment is made."



Lake Water Quality Summary										
	Summertime Lake Grades (May-Sept)									
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016
Total Phosphorus (mg/L)	A	A	A	A	C	B	B	B	C	C
Chlorophyll-a (ug/L)	A	A	A	A	C	B	B	B	B	C
Secchi depth (ft)	A	A	A	A	B	B	C	C	C	B
Overall	A	A	A	A	C+	B	B-	B-	C+	C+

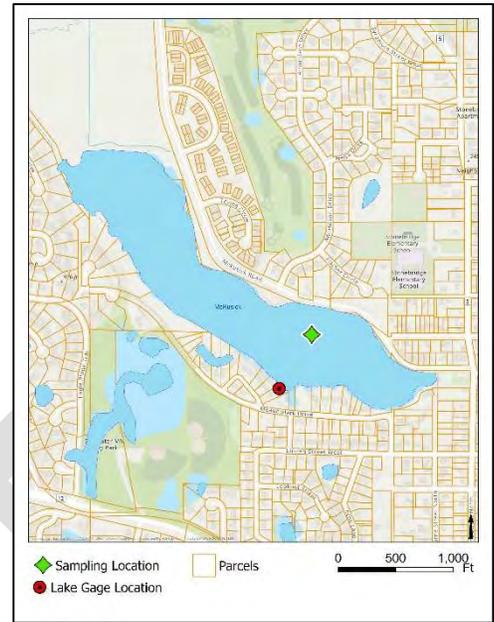
MCKUSICK LAKE

2025 Lake Grade: C+

DNR ID #: 820020

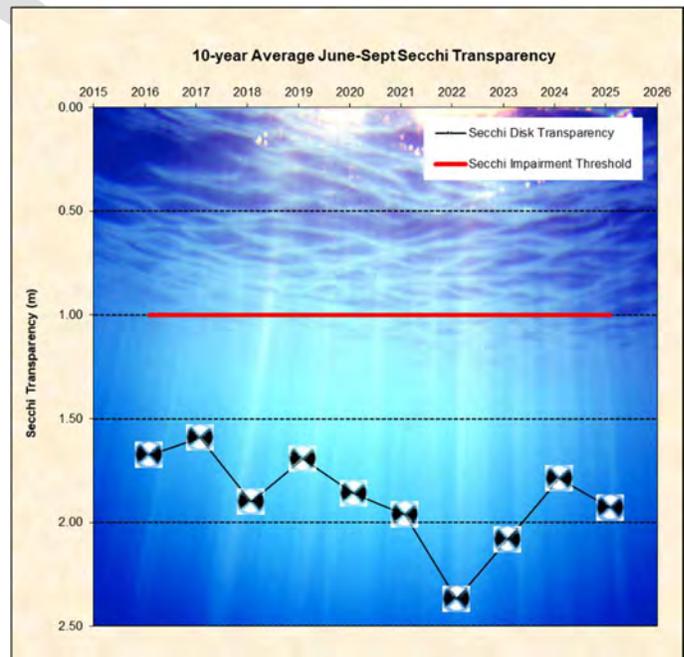
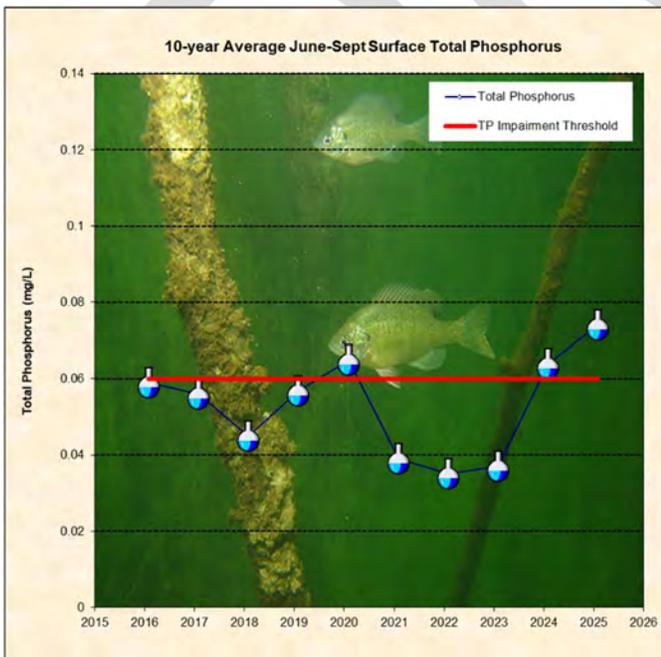
- Municipality: City of Stillwater
- Location: NE ¼ Section 29, T30N-R20W
- Lake Size: 46 Acres
- Maximum Depth (2025): 14 ft.
- Ordinary High Water Mark: 851.7 ft.
- 100% Littoral

Note: Littoral area is the portion of the lake <15 ft. and dominated by aquatic vegetation.



Summary Points

- Based on the chlorophyll- α results McKusick Lake was considered eutrophic in 2025, according to the Carlson Trophic State Index.
- Using a Kendall's Tau correlation test ($p < 0.05$) there is a statistically significant **improving** trend for average Secchi transparency, average total phosphorus, and no trend for the average chlorophyll- α .
- The major land use is urban/residential.
- Temperature and dissolved oxygen profiles were not collected in 2025 so stratification cannot be determined.
- McKusick Lake was delisted in 2012 for its impairment for nutrients on the Minnesota Pollution Control Agency's Impaired Waters List.

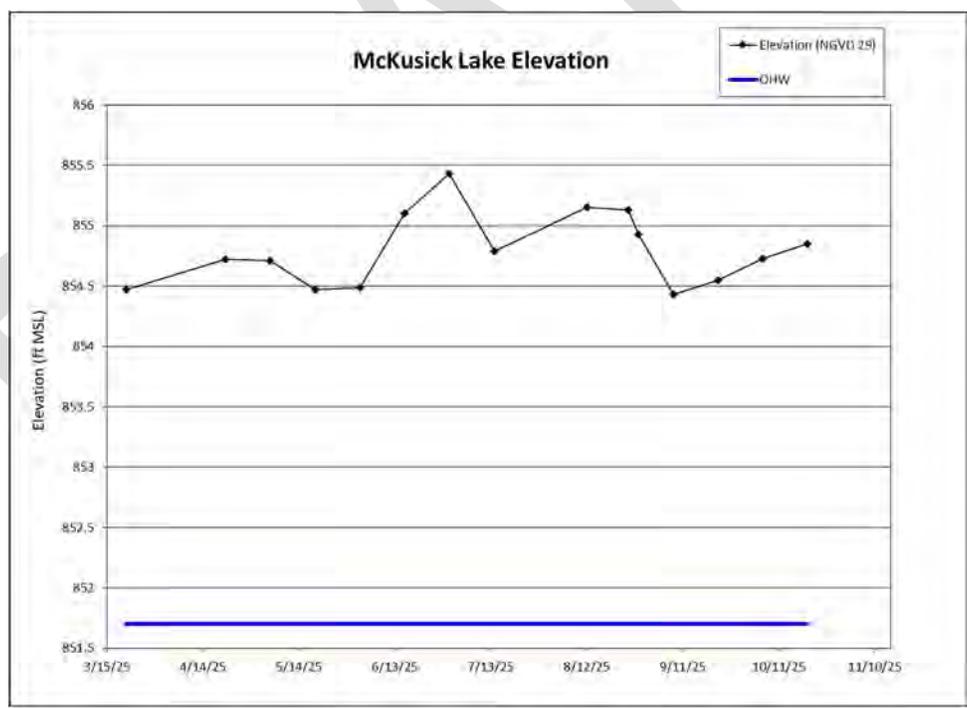


Date/Time	Total Phosphorus (mg/L)	Uncorrected Trichromatic Chlorophyll-a (ug/L)	Pheophytin-Corrected Chlorophyll-a (ug/L)	Total Kjeldahl Nitrogen (mg/L)	Secchi Disk Depth (m)	Surface Temperature (Celsius)	Surface Dissolved Oxygen (mg/L)	Chloride (mg/L)
4/21/2025 15:13	0.052	6.2	5.6	0.64	1.98	11.8	10.03	
5/5/2025 9:21	0.032	5.0	4.5	0.60	2.59	17.8	10.08	
5/19/2025 13:39	0.033	5.8	4.8	0.59	2.44	15.7	9.37	
6/2/2025 9:22	0.032	4.3	3.7	0.64	2.74	20.6	11.38	
6/16/2025 9:33	0.031	3.7	2.7	0.60	2.59	20.0	8.83	
6/30/2025 9:34	0.044	5.8	4.5	0.65	2.13	23.6	8.24	
7/14/2025 9:27	0.169	28.0	24.0	0.97	1.52	25.9	5.41	
7/29/2025 8:48	0.101	19.0	17.0	0.88	1.52	24.8	2.99	63.7
8/12/2025 12:26	0.110	21.0	18.0	0.91	1.68	24.8	3.72	
8/25/2025 9:36	0.067	14.0	12.0	0.76	1.52	20.1	1.15	
9/8/2025 13:12	0.066	8.4	7.7	0.72	2.13	17.2	5.03	54.3
9/22/2025 9:23	0.042	8.1	7.5	0.73	1.52	21.1	6.25	
10/6/2025 12:44	0.050	5.7	4.3	0.81	2.07	19.7	5.74	
10/20/2025 9:32	0.041	4.2	3.7	0.64	1.98	12.8	7.21	
2025 Average	0.062	9.9	8.6	0.72	2.03	19.7	6.82	NA
2025 Summer Average	0.074	12.5	10.8	0.76	1.93	22.0	5.89	NA

Water quality thresholds are 0.04 mg/L TP, 14 µg/L CL-a, 1.4 m Secchi depth*
 Shallow lake water quality thresholds are 0.06 mg/L TP, 20 µg/L CL-a, 1.0 m Secchi depth*

	High	High Date	Low	Low Date	Average
2025 Elevation (ft)	855.43	6/30/2025	854.43	9/8/2025	854.80

*Data requirements and determinations of use assessment according to the MPCA's Guidance Manual for Assessing the Quality of Minnesota Surface Waters: "Samples must be collected over a minimum of 2 years and data used for assessments must be collected from June to September. Typically, a minimum of 8 individual data points for TP, corrected chlorophyll-a (chl-a corrected for pheophytin), and Secchi are required. Data used for phosphorus and chlorophyll-a calculations are limited to those collected from the upper most 3 meters of the water column (surface). If more than one sample is collected in a lake per day, these values are averaged to yield a daily average value. Following this step, all June to September data for the 10-year assessment window are averaged to determine summer-mean values for TP, corrected chl-a, and Secchi depth. These values are then compared to the standards and the assessment is made."



Lake Water Quality Summary										
	Summertime Lake Grades (May-Sept)									
	2025	2024	2023	2022	2021	2020	2019	2018	2017	2016
Total Phosphorus (mg/L)	C	C	C	C	C	C	C	C	C	C
Chlorophyll-a (ug/L)	B	B	A	A	A	A	A	B	B	B
Secchi depth (ft)	C	C	C	B	C	C	C	C	C	C
Overall	C+	C+	B-	B	B-	B-	B-	C+	C+	C+

MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

2025 ANNUAL REPORT



Lakeland

Prepared by:

MIDDLE ST. CROIX WMO BOARD OF MANAGERS

APPROVAL DATE: February 13th, 2025

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<i>Outreach and engagement to restore native landscapes and reduce runoff pollution</i>	<i>13</i>
<i>Adopt-a-Drain: The Adopt-a-Drain program engages community residents in helping to prevent stormwater pollution by cleaning leaves, litter and other debris off of storm drains near their homes. Volunteers get reminders via text or email and are asked to report their actions on-line so that cities can track the program’s impact. ..</i>	<i>14</i>
<i>In 2025, EMWREP continued to promote the program through a variety of means, including:</i>	<i>14</i>
• <i>Participating in Watershed Partners and financially supporting the Adopt-a-Drain</i>	<i>14</i>
• <i>Publishing articles in local newspapers and city newsletters.....</i>	<i>14</i>
• <i>Collaborating with volunteer groups.....</i>	<i>14</i>
• <i>Sending quarterly e-updates to Adopt a Drain volunteers to share info about partner programs, upcoming events, and other volunteer opportunities</i>	<i>14</i>
• <i>Adopt a drain (video)(9-28-25) - 6k views on TikTok + 20k views on Instagram</i>	<i>14</i>
<i>There are currently 195 drains adopted in MSCWMO, including:</i>	<i>14</i>
<i>Presentations: Throughout the year, EMWREP staff gave dozens of presentations about local water issues, conservation success stories, partner projects and programs, and more.</i>	<i>14</i>
<i>Mentor & engage volunteers: Through EMWREP, MSCWMO engages volunteers in helping to educate the public, plant and care for trees, and complete projects to protect and restore waterways.</i>	<i>15</i>
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MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

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INTRODUCTION

The Middle St. Croix Watershed Management Organization encompasses approximately 19.8 square miles and is located in the east-central part of Washington County. A distinction exists between the Middle St. Croix watershed and the other watersheds of Washington County in that the Middle St. Croix watershed has many small, parallel watersheds that all flow to the St. Croix, whereas the other watersheds in the County generally have one major drainage with a headwaters and outlet. Land use in the watershed is evenly distributed between agricultural uses, rural residential, high-density residential and commercial land uses.

The Middle St. Croix Watershed Management Organization (MSCWMO) is a Joint Powers Watershed Management Organization composed of ten St. Croix Valley communities established under State Statute 103B to cooperatively manage water resources within the watershed. The ten member communities of the MSCWMO are Afton, Bayport, Baytown Township, Lakeland, Lakeland Shores, Lake St. Croix Beach, Oak Park Heights, St. Mary's Point, Stillwater, and West Lakeland Township.

In general, the purposes of a Watershed Management Organization (WMO) are to conserve natural resources through land use planning, flood control, and other conservation projects in order to ensure continued public health and welfare. The specific purposes of a watershed management organization are:

- Cooperatively manage water resources in the watershed.
- Inventory and assess the resources of the watershed.
- Monitor the water quality of lakes and streams in the watershed.
- Provide education on water related issues in the watershed.
- Review development plans for stormwater management, erosion and sediment control, and provide wetland and shoreland protection.
- Plan and implement capital improvement projects that enhance the water resources of the watershed.

The mission of the Middle St. Croix Watershed Management Organization is to jointly and cooperatively manage the water resources of the watershed. The ten member communities will do so to conserve and protect the water resources in an efficient and effective manner.

ORGANIZATION AND BUDGET

MSCWMO Board of Managers

Each member municipality or township within the MSCWMO appoints one member to the MSCWMO Board. The 2025 representatives from each participatory community are listed below.

Annie Perkins
4042 River Road S.
Afton, MN 55001
651.592.3007

Tom McCarthy
16455 20th St. S.
Lake St. Croix Beach, MN 55043
651.436.7031

Brian Zeller (Chair)
84 St. Croix Trail S
Lakeland, MN 55043
612.325.3038

Tom Grahek
2959 Itasca Ave. S.
St. Mary's Point, MN 55043
612.417.5394

Carly Johnson
14418 57th St N
Oak Park Heights, MN 55082
651.261.5801

Avis Peters
13045 53rd Street Pl.
Stillwater., MN 55082
651.430.8163

Ryan Collins
1467 Benson Blvd E
Stillwater MN 55082
651.246.8264

Dave Millard
16051 Quality Ct
Lakeland, MN 55043
651.408.3483

Rachel Dana
2235 Oakgreen Ave N
West Lakeland Township, MN 55082
612.751.7583

John Dahl
775 3rd Ave N.
Bayport, MN 55003
651.439.7312

MSCWMO Contract Support Staff

The MSCWMO does not employ staff but does contract with several organizations for professional services. The organizations providing these services are listed below.

Administrator
Matt Oldenburg-Downing
Washington Conservation
District
455 Hayward Avenue
Oakdale, MN 55128
651.796.2227

Attorney
Troy Gilchrist
1250 Wayzata Boulevard E
Unit #1065
Wayzata, MN 55391
612.234.7539
troy@townlawcenter.com

Recording Secretary
Washington Conservation
District
455 Hayward Avenue
Oakdale, MN 55128
651.330.8220 Ext. 2225

Table 1: 2025 Budget

Administration Budget	Community Contributions
Administration - General	\$ 33,000
Accounting	\$ 1,800
Legal Fees – General	\$ 500
Audit	\$ 5,500
Insurance	\$ 2,600
Office supplies/equipment/postage	\$ 400
Minutes/Clerical	\$ 1,400
Copying/printing	\$ 400
Subtotal	\$ 45,600
Project Budget	
Project Contingency	\$ 2,000
Engineering - Project	\$ 4,000
Development Plan Reviews	\$ 7,000
Erosion Monitoring Program	\$ 2,400
BMP Program Tech. Assistance	\$ 32,000
BMP Program Cost Share	\$ 15,000
Community TA	\$ 3,000
Water Resource Educator	\$ 6,700
Website	\$ 900
Inspection and Tracking Database	\$ 900
Water Monitoring	\$ 23,000
Water Monitoring Equip. Savings	\$ 750
2025 WMP Update	\$5,000
Subtotal	\$ 102,650
TOTAL	\$ 148,250

Table 2: 2026 Budget

Administration Budget	Community Contributions
Administration - General	\$ 34,000
Accounting	\$ 1,880
Legal Fees – General	\$ 500
Audit	\$ 5,500
Insurance	\$ 2,600
Office supplies/equipment/postage	\$ 400
Minutes/Clerical	\$ 1,470
Copying/printing	\$ 400
Subtotal	\$ 46,750
Project Budget	
Project Contingency	\$ 2,000
Engineering - Project	\$ 4,000
Development Plan Reviews	\$ 7,000
Erosion Monitoring Program	\$ 2,520
BMP Program Tech. Assistance	\$ 34,000
BMP Program Cost Share	\$ 15,000
Community TA	\$ 3,000
Water Resource Educator	\$ 8,000
Website	\$ 900
Inspection and Tracking Database	\$ 500
Water Monitoring	\$ 23,000
Water Monitoring Equip. Savings	\$ 750
2035 WMP Update	\$5,000
Subtotal	\$ 105,670
TOTAL	\$ 152,420

AUDIT REPORT

Due to changes in annual audit requirements, the Board has opted to forgo an audit for 2025. The next audit is scheduled to be completed in 2029. An annual summary of budget vs. actual is prepared by staff and presented to the Board for review.

2025 PROGRAMS AND PROJECTS

2025 Implementation of Performance Standards

The mission of the MSCWMO is to jointly and cooperatively manage water resources within the WMO and to provide effective and efficient services to the residents of the watershed. To work to meet this goal, the MSCWMO adopted Minimal Impact Design Standards (MIDS) developed by the Minnesota Pollution Control Agency. The watershed also provided assistance to member communities to integrate MIDS into local ordinance. Rather than create its own separate permit program, the MSCWMO reviews projects that meet the criteria listed in section 7.0 of the 2015-2025 Watershed Management Plan. Member communities do not issue permits until the project has met all applicable watershed performance standards.

Table 3: MSCWMO Project Reviews and Total Phosphorous Load Reductions of Permanent Stormwater Best Management Practices Estimated with the MIDS Calculator.

Year	Total Projects Reviewed	Total BMP Estimated TP Reduction (lbs./yr.)	Redevelopment BMP Estimated TP Reduction (lbs./yr.)
2016	19	26.7	25.6
2017*	19	133.6	124.7
2018	18	25.8	17.2
2019	13	17.9	6.0
2020	11	51.7	0.2
2021	13	14.0	7.6
2022	18	7.2	7.2
2023	22	13.0	11.1
2024	12	45.5	5.4
2025	27	11.4	6.4

*2017 includes the permanent stormwater BMPs installed as part of the St. Croix Crossing project.

2025 Projects Implementation

The MSCWMO 2025-2035 Watershed Management Plan prioritizes project implementation in the Lily Lake, Lake McKusick, Perro Creek and St. Croix Direct Subwatersheds to reduce total phosphorus (TP) loading to Lake St. Croix by at least 20 lbs. A total of 14 water quality improvement and habitat enhancement projects were installed in 2025 with an estimated annual TP load reduction of 2.6 lbs.

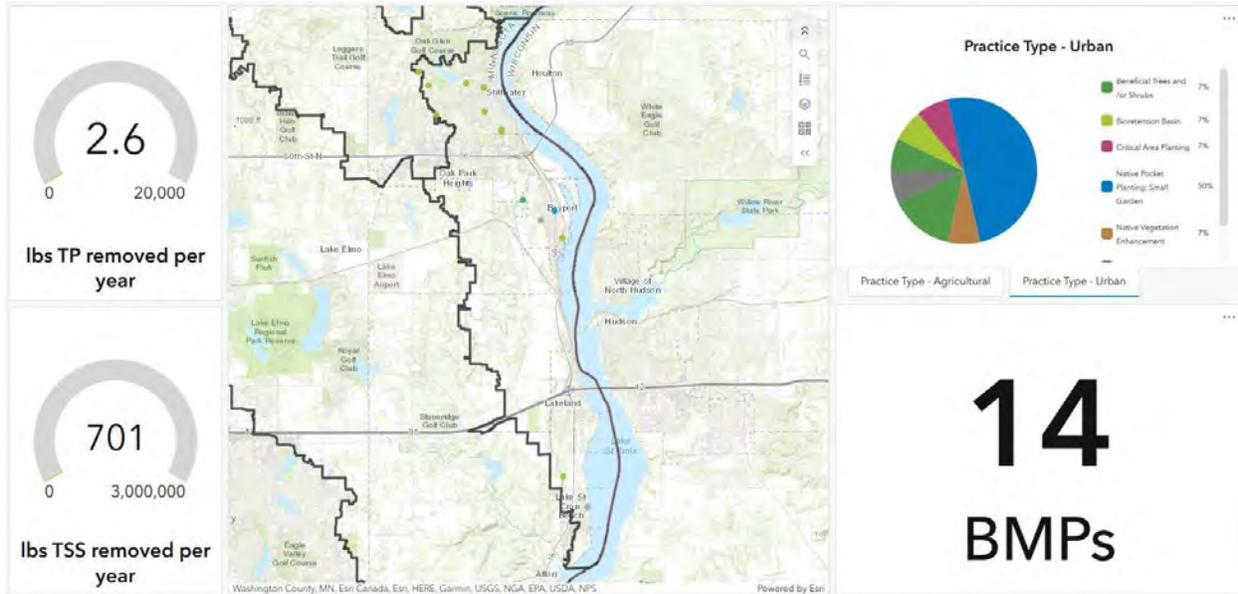


Figure 1. 2025 Installed Practices with Total Phosphorus (TP) and Total Suspended Solids (TSS) Reductions

Table 4: MSCWMO Water Quality Retrofits and Total Phosphorous Load Reductions of Permanent Stormwater Best Management Practices.

Year	Total Projects Installed	Total BMP Estimated TP Reduction (lbs./yr.)	Targeted Subwatersheds
2016	3	48.8	Lake St. Croix and Perro
2017	5	10.1	Lake St. Croix and Lily
2018	6	56.3	Lake St. Croix and Lily
2019	7	39.4	Lake St. Croix and Lily
2020	4	0.8	Lake St. Croix and Perro
2021	4	65.3	Lake St. Croix and Lily
2022	12	8.0	Lake St. Croix and McKusick
2023	15	18.3	Lake St. Croix, Lily, and McKusick
2024	13	25.5	Lake St. Croix, Perro Creek, McKusick
2025	24	2.6	Lake St. Croix, Perro, Lily, and McKusick

Best Management Practices and Subwatershed Implementation Program

The MSCWMO continues to seek partnerships to construct high-performing and low-cost stormwater best management practices identified in its subwatershed analyses. In 2025, three projects were completed that were either identified in a subwatershed analysis or located in priority direct drainages that were part of these analyses. These projects received state and local funding to design and construct:

Projects that were installed in 2025:

- St. Croix United Church Bioretention Project, Perro Creek Subwatershed.
- Bayport Fire Station Turf Conversion Project, Perro Creek Subwatershed.
- Barkers Alps Woodland Restoration, Perro Creek Subwatershed.

The following is a summary of work that was completed in 2025:

St. Croix United Church Bioretention Project:

The MSCWMO awarded a Landscaping for Water Quality Grant to St. Croix United Church in Bayport to replace an existing raingarden located near the intersection of 3rd St N and 2nd Avenue N. The existing raingarden was originally constructed by the MSCWMO in partnership with the City in 2011, and was determined to be non-functional by WCD staff due to sediment accumulation and outlet configuration. The new basin features an expanded footprint, relocated outlet for increased storage, and a more robust pre-treatment system for coarse sediment capture. The project is expected to reduce Total Phosphorus (TP) loading to Perro Creek by 2.16 lbs annually.

This project was identified as a priority retrofit location in the MSCWMO BMP Retrofit Analysis completed in 2024. The project was funded in part by the Washington Conservation District using

FY22 Clean Water Fund dollars (\$27,079), the Middle St. Croix WMO (\$1,504 cost share and \$1,220 in technical assistance time), and St. Croix United Church (\$1,504).



[Above] *Before (left) and after construction (right).*

Bayport Fire Station Turf Conversion Project:

In September, 2025 the MSCWMO board approved cost-share encumbrance of up to \$1,200 from the Water Quality Improvement Grant program to convert approximately 1.42 acres of turf to native prairie under an existing solar array at the Bayport Fire Station. Natural Resource Services completed the site preparation and seeding in October of 2025 at a total cost of \$4,630. The project is expected to reduce TP loading to Perro Creek and Perro Pond by approximately 0.48 lbs/yr while providing nesting and forage resources to birds, pollinators and other wildlife.



[Above] *Bayport Fire Station forment seeding, November 2025.*

Barkers Alps Woodland Restoration, Bayport:

In 2023, the City of Bayport received a Metro Conservation Partners Legacy Grant (part of the Outdoor Heritage Fund and part of the Clean Water, Land and Legacy Amendment) to enhance 24 acres of buckthorn-dominated woodland in Barker's Alps Park. The City of Bayport contracted with Landbridge Ecological to complete initial buckthorn removal in fall of 2024 with follow-up foliar spraying completed in 2025.



[Above] *Barker's Alps buckthorn removal 2024.*

Middle St Croix Mini-Grant Cost Share program:

The Middle St Croix WMO offers Stewardship Grants (up to \$500) to qualifying landowners to install low-cost BMPs in priority areas. The program saw 12 installations and 37 inquiries (likely future applicants). These projects included two woodland or bluffland enhancements and 10 native landscaping projects for wildlife benefit.



[Left] *Bird City Gardens/Mulberry Bird Station, Stillwater.* [Right] *Eckel native landscaping, Stillwater.*



[Left] *Lake St. Croix Beach bluffland enhancement.* [Right] *McCready woodland enhancement, Bayport.*

Erosion Monitoring Program

The MSCWMO erosion control inspection program was developed to ensure that the policies and performance standards of the MSCWMO are implemented during construction on qualifying projects. WCD staff inspect projects reviewed and approved by MSCWMO staff and the Board. The MSCWMO coordinates its inspection program with its member communities and their building/permit inspectors. The program focuses efforts on communities which do not have their own inspection staff available including St. Mary's Point, Lake St. Croix Beach, Lakeland, Lakeland Shores, and West Lakeland Township, although inspections are occasionally conducted in other communities on an as-needed basis.

In 2025, 29 erosion control inspections were conducted on 11 projects. Construction activity was significantly higher than previous years, and the building season was subject to wetter than average weather conditions, including several severe storms throughout the summer. Compliance over the year was generally high, with 31.0% of inspections receiving an A grade, 37.9% a B, 20.7% a C, 10.3% a D, and 0.0% an F. However, nine of the inspections were focused on just two projects, which either started as or were found to have a violation of bluff protection standards along the St. Croix River. An additional two projects were unaware of and nearly began work without a state-required construction stormwater permit, which regulates all projects disturbing more than one acre of soil.

For the purposes of this summary, compliance rates for inspection items were only considered when the item was marked "compliant" or "non-compliant", and all "not inspected" and "under review" items were removed from the total number of inspections for each inspection item. The most common non-compliant items noted were failure to minimize disturbance or use practices appropriate for steep slopes (58.3% of applicable inspections), failure to install downgradient perimeter controls at the edge of the site (34.8% of applicable inspections), and failure to properly maintain perimeter controls (23.8% of applicable inspections). The items with the highest compliance rates were proper vehicle sediment trackout prevention practices (88.2% of applicable inspections), proper maintenance of soil cover on previously disturbed soils (83.3% of applicable inspections), and proper installation of downgradient perimeter controls (65.2% of inspections). These figures were heavily influenced by a single site, which violated bluff protection standards without a project review on a bluff within the St. Croix National Scenic Riverway by clearing all rooted vegetation and dumping fill over the bluffline, leaving the steep slope and St. Croix River exposed with no erosion prevention or sediment controls. Considerable efforts were made by City, MSCWMO, and WCD staff to bring the landowner back into compliance through restorative grading, soil cover, and revegetation of the slope. Another site with an approved project review was found to have deviated from plans during construction by improperly installing their site perimeter sediment controls on the middle of the river bluff slope, which was an encroachment on City property, and were preparing to remove retaining wall timbers on the slope. Despite the violations and weather conditions seen in 2025, no sediment discharges or significant erosion events were observed on any site.

Other activities conducted in 2025 intended to improve compliance were distribution of "reminder flyers" to project contacts in the spring and fall to prepare sites for wet conditions, conducting pre-construction site meetings, and providing guidance to site managers for obtaining erosion and sediment control training and construction stormwater permits prior to construction. Considerable

technical assistance was also provided through coordinated on-site meetings during construction for permanent stormwater treatment features, in addition to erosion and sediment control solutions.

BMP Inspections and Maintenance

The MSCWMO BMP Inspection and Tracking Database was developed to ensure that the installed practices are meeting functional and aesthetic expectations. In 2025, 86 MSCWMO projects were inspected and graded as either “Nonfunctional”, “Partially Functioning”, “Degraded Aesthetics” or “No Maintenance Required”. Of the 86 inspected, 11 were graded as either “Nonfunctional” or “Partially Functioning”, indicating a need for partial or complete rehabilitation. In most cases, inlet clogging leading to bypass of the practice was responsible for a grade of “Partially Functioning.”

Annual routine maintenance was performed by WCD Maintenance Crew staff on several recent MSCWMO targeted retrofit projects, including:

- Inlet cleanout on 10 raingardens in OPH Area D
- Vegetative and Inlet Maintenance on Ozark raingarden
- Golden Creeper eradication efforts in the Mulberry Ravine
- Stillwater Country Club inlet and vegetative maintenance and Lily Lake Basin inlet cleanout and vegetative maintenance

Routine maintenance consisted of structural repair where necessary (e.g. repairing or retrofitting inlets), inlet cleanout, weed removal, mulching, and re-planting. Additionally, two small-scale retrofit projects were completed in 2025 with support from WCD staff, including the CSAH 5 Gutter Bin and Quixote IESF Inlet retrofit projects. A total of eight catch-basin liners were installed on Owens St N as a part of the CSAH Gutter Bin retrofit project, leading to the removal of nearly 450 lbs of sediment and debris. Samples were also collected from the gutter bags and analyzed for phosphorus and heavy metal content. In Lakeland, improvements were also made to six inlets along Quixote Ave N to improve the function and longevity of the iron-enhanced sand filter practice installed by the WMO in 2025.



[Above] *CSAH 5/Owens St N Gutter Bin installation, Stillwater.*



[Above] *Quixote Ave N IESF inlet retrofit, Lakeland.*

The WMO also continued to work in partnership with the East Metro Water Resource Education Program, Cities, Sustainable Stillwater, the Friends of Lily Lake, and the Stillwater Foundation to implement an Adopt-a-Raingarden Program in Stillwater, Oak Park Heights, Bayport, Lake St. Croix Beach and West Lakeland Township. The program will continue in 2026 under volunteer management.

Groundwater

The MSCWMO continued to recognize the Washington County Groundwater Plan during 2025 and continued to participate in County wide technical advisory committee meetings to prioritize implementation and identify responsible parties for specific activities.

Local Government Controls

The MSCWMO continued to work with its member communities to strengthen water quality and natural resource management. Through a Clean Water Fund Accelerated Implementation grant the MSCWMO assisted its member communities to update their local controls. In 2018 all communities except Stillwater adopted Minimum Impact Design Standards (MIDS) into local ordinance and code. All communities will continue to participate in the MSCWMO's project review program. The City of Stillwater has adopted MIDS standards by resolution in 2019 but has not codified.

One Watershed One Plan

In 2025, the MSCWMO has worked collaboratively with 15 local governments participating in the Lower St. Croix Comprehensive Watershed Management Plan. The MSCWMO will continue to work collaboratively to implement a coordinated management plan on the large HUC 8 basin scale.

Information and Education Program

Outreach and engagement to restore native landscapes and reduce runoff pollution

The Blue Thumb – Planting for Clean Water Program is a Minnesota partnership hosted by Metro Blooms. Public, private, and nonprofit partners work together to educate the public about native plants, raingardens and shoreline plantings and encourage homeowners to complete projects on their land. The program operates the www.BlueThumb.org website, hosts workshops and other events, delivers educational messaging through several media platforms, and has produced numerous print resources, including the Blue Thumb Guide to Year Round Yard Care.

EMWREP helps to support Blue Thumb financially (\$500 per year), as a guest speaker for events, and through its media and communications. EMWREP also hosted the following workshops and gardening events within the MSCWMO:

- Feb. 19 Trillium Garden Club in Stillwater (15 people)
- April 26: Sustainable Stillwater Eco Fair at Pioneer Park
- May 17: Invasive removal and native planting at Lumberjack Landing in Stillwater
- June 5 Wetlands of the St. Croix in Afton (27 people)
- July 16 Trillium Garden Club Tour in Stillwater (15 people)
- Tue., Nov. 18: Middle St. Croix WMO bluffland landowner workshop (17 people)

MSCWMO also mailed a two-page newsletter to riverway landowners in Bayport, Lakeland, Lakeland Shores, and St. Mary's Point

Adopt-a-Drain: The Adopt-a-Drain program engages community residents in helping to prevent stormwater pollution by cleaning leaves, litter and other debris off of storm drains near their homes. Volunteers get reminders via text or email and are asked to report their actions on-line so that cities can track the program's impact.

In 2025, EMWREP continued to promote the program through a variety of means, including:

- Participating in Watershed Partners and financially supporting the Adopt-a-Drain
- Publishing articles in local newspapers and city newsletters
- Collaborating with volunteer groups
- Sending quarterly e-updates to Adopt a Drain volunteers to share info about partner programs, upcoming events, and other volunteer opportunities
- [Adopt a drain \(video\)](#)(9-28-25) - 6k views on TikTok + 20k views on Instagram

There are currently 195 drains adopted in MSCWMO, including:

- 14 in Bayport
- 21 in Oak Park Heights
- 152 in Stillwater
- 8 in West Lakeland

Chloride education

We mailed an educational package to 52 private contractors, 75 schools, and 45 HOAs with info about SMART Salting best practices and upcoming trainings. We also sent an e-newsletter to 794 Adopt-a-Drain participants, volunteers, and lake associations members.

Throughout 2025, staff also published numerous news articles and videos about chloride pollution for social media and attended the DaVinci Fest at Stillwater High School on Jan. 25 to share info about chloride and SMART salting.

Well Water Screening Clinic

- During the Aug. 21 clinic in Baytown, we tested 135 samples for nitrate and chloride (200+ attendees) and had lots of important conversations about PFAS and other local drinking water concerns.

Presentations: Throughout the year, EMWREP staff gave dozens of presentations about local water issues, conservation success stories, partner projects and programs, and more.

- **Feb. 3: Presentation for Bayport City Council** (Barbara)

- **Feb. 6: Write in Our Midst:** Author Talk for Washington County Libraries about the St. Croix River (Angie) (30 participants)
- **April 8: Exploring the St. Croix: Adventures on and off the Water.** Hosted by Wild Ones - Oak Savanna St. Croix Chapter at Family Means in Stillwater (Angie)(25 participants)
- **May 6: Presentation for Sentence to Serve crew** (Angie and Tara Kelly) (10 participants)
- **June 26: Exploring the St. Croix River Valley.** Presentation to Washington County Master Gardeners at Bayport Library. (Angie) (90 participants)
- **July 15: Presentation about the St. Croix River** at Boutwell's Landing in Oak Park Heights (Angie) (80 participants)
- **July 30 – Aug 3: Washington County Fair**
-
- **Aug. 19: History Cruise** (Stillwater). Presentation about natural history and conservation in the St. Croix River watershed. (Angie) (154 participants)
- **Nov. 18: Stillwater Sunrise Rotary.** Presentation about watershed climate resiliency efforts (Angie) (45 participants)

Mentor & engage volunteers: Through EMWREP, MSCWMO engages volunteers in helping to educate the public, plant and care for trees, and complete projects to protect and restore waterways.

- **Water Stewards:** Water Stewards is a program operated by Freshwater, with local partners. Stewards complete 40-hours of on-line training plus a capstone project to become certified. Once certified, they volunteer 25-hours per year to support watershed and conservation initiatives in their local communities. There are currently 20 Water Stewards working in Washington County, including 4 in the MSCWMO.

In 2025, we received \$10k in grant funding from St. Croix Valley Foundation to help us recruit and train new Water Stewards. We'll be doing this work in partnership with the St. Croix Watershed Stewards (a sister organization, with volunteers in Minnesota and Wisconsin). With this new funding, we are now training two new water stewards in MSCWMO.

- **Adopt-a-Raingarden:** The Adopt-a-Raingarden program engages community volunteers to care for raingardens in Stillwater and Oak Park Heights. Volunteers commit to removing weeds, litter, and built-up sediment during the growing season and reporting larger maintenance concerns to staff at Washington Conservation District.

EMWREP collaborates with Sustainable Stillwater to keep an up-to-date list of volunteers and garden locations and plans an annual clean-up event. This year's event was held on May 10 and had eight volunteer participants. There are 35 adopted raingardens in the program.

- **Tree Stewards:** Minnesota's Tree Steward program is designed for people who love trees, enjoy being outdoors, and want to volunteer in their community. In addition to caring for

community trees, volunteers also help to lead reforestation efforts and share education and tree care information at community events. This spring, EMWREP worked with Washington Conservation District to host volunteer trainings on Saturday, April 5 in Scandia and Saturday, April 12 in Lake Elmo. We now have 43 certified Tree Stewards who have provided 150 hours of tree care and educational support to our communities in 2025.

EMWREP partners have utilized Tree Steward volunteers to help complete a wide array of native landscape restoration efforts in the MSCWMO this year. A few examples include:

- **Bayport:** pruning boulevard trees and caring for trees planted in the last 5 years
 - **Baytown Twp.:** Helping to sort and distribute trees at the WCD spring tree sale
 - **Stillwater:** Planting trees at Brown's Creek Park and removing buckthorn
-
- **School Planting Projects:** There are new school planting projects in progress at Lily Lake Elem. (Stillwater), New Heights (Stillwater), Afton-Lakeland Elem., and St. Croix Montessori (West Lakeland).

HOA Education Program recognized as MN Watersheds Program of the Year

Over the past three years, EMWREP has developed a comprehensive education program to support Homeowners' Associations (HOAs) in caring for their stormwater and green infrastructure. The initiative began in 2023-24, when we conducted surveys and focus groups to learn about the knowledge, behaviors, barriers, motivations, and education needs of HOAs. We then created an Education Toolkit with 12 fact sheets, covering a range of topics from stormwater ponds to snow and ice removal, and hosted a conference for HOA leaders.

This year, EMWREP partnered with UMN Water Resources and Minnesota Sea Grant to develop a three-part training course to help HOAs understand stormwater features and plan for long-term maintenance. Ten HOAs participated in the pilot training, including two from MSCWMO.

St. Croix River Workshop on the Water: July 30 in Taylor's Falls

The annual St. Croix WOW offers a unique opportunity for community leaders to network, access support from state and local government, and learn about issues such as sustainable community development, preventing harmful algal blooms, community forestry, healthy shorelines, and St. Croix Watershed resources and connections.

This year's workshop included keynotes from Matt Poppleton, Executive Director of Wild Rivers Conservancy of the St. Croix and Namekagon, Nate Toering, National Park Service, and Jen Kader, Clean Water Council. There were also five learning stations with mini-presentations. 120 local leaders from cities, counties, townships, watersheds, and SWCDs attended, including numerous people representing communities in the MSCWMO.

In addition, EMWREP maintains a robust presence on social media through its @mnnature_awesome accounts.

Find detailed information about education programming completed by the EMWREP partnership in its 2025 Annual Report.

Website

The MSCWMO continued to update its website in 2025. The website contains up to date meeting dates, agendas, minutes, annual reports, water monitoring information, contact information and more. In addition, the website also contains a section for grant reporting which highlights projects completed as part of the BWSR Clean Water Legacy Program. Project review applications can be submitted online, as well as all necessary information on the MSCWMO's project review process and status of submitted project reviews. The MSCWMO website can be viewed at the following link:

<http://www.mscwmo.org>

2025 Data Collection Program

Water Quality Monitoring Program

In 2025, the Middle St. Croix Watershed Management Organization (MSCWMO) continued condition monitoring and water quality and elevation biweekly on McKusick Lake and Lily Lake, with the addition of collecting chloride samples to assess baseline chloride concentrations. Weekly to biweekly elevation data was collected on Brick Pond by a volunteer. Information from the Brown's Creek Diversion Drainage which flows to McKusick Lake is monitored by the Brown's Creek Watershed District, but resulting information is also provided to the MSCWMO for use in management planning. In 2022 a permanent, fully automated monitoring station was established on Perro Creek to better characterize loading from Perro Creek to the St. Croix. The MSCWMO monitored volume and concentration of discharge for both base flow and storm flows from Perro Creek in 2025.

Full water monitoring reports can be viewed on our website. The 2025 monitoring report will be available in May of 2026.

<http://www.mscwmo.org/water-monitoring>

2026 WORKPLAN

Best Management Practices Program

The MSCWMO will continue to promote its Best Management Practices Program in 2026. The MSCWMO will continue to work to engage landowners in the Lily Lake, McKusick Lake, Perro Creek, Lake St. Croix Direct Discharge North and South subwatersheds.

Watershed Management Plan; Subwatershed Analyses and Implementation

In 2026 the MSCWMO will continue working with the City of Stillwater, City of Bayport, City of Lake St. Croix Beach, other member communities, MnDOT, and private landowners to design and install targeted stormwater quality best management practices identified in subwatershed analyses. As part of the 2026 -2036 management plan update, the MSCWMO has identified existing subwatershed analyses and implementation to determine what practices are outstanding or are in need of retrofit or reinstallation and being implementation.

Water Monitoring

The MSCWMO will continue water quality condition monitoring program for Lily and McKusick Lakes and Perro Creek. The MSCWMO will be conducting macrophyte surveys on Lily and McKusick Lakes. The MSCWMO has contracted with the Washington Conservation District to complete monitoring and reporting again in 2026. The MSCWMO is planning to apply for funding to monitor the volume and concentration flowing out from the Mulberry Ravine and select stormwater outfalls in the City of Stillwater discharging directly into Lake St. Croix.

Public Education and Outreach Programs

The MSCWMO will continue to participate in the East Metro Water Resource Education Program. The activities and programs offered through this partnership will help MSCWMO meet its goals for education and outreach.

Lower St. Croix One Watershed One Plan

The MSCWMO will continue to work collaboratively with 15 units of government charged with water governance in the Lower St. Croix HUC8 watershed to implement a coordinated management plan.

Development Plan Reviews and Erosion Control Inspection Program; MSCWMO Policies and Performance Standards

The MSCWMO will continue to review qualifying projects for consistency with the 2026 Watershed Management Plan, and will continue to coordinate its review process with its member communities. Staff will also continue to inspect current and past projects to ensure erosion control practices are implemented, and stormwater management features are functioning as planned. The MSCWMO will promote trainings and events that will improve performance on future projects.

Website Update and Maintenance

The MSCWMO continues to update and maintain its website.

APPENDIX A

2026 Annual Communications

AFTON

The City of Afton is one of ten member communities of the Middle St. Croix Watershed Management Organization (MSCWMO) that collectively works to improve the water quality of Lake St. Croix. The MSCWMO provides educational, technical, and financial assistance to the City of Afton to effectively manage water resources. They also partner with the Washington Conservation District to provide design and cost share assistance for voluntary conservation projects on private lands that reduce sediment and phosphorous pollution entering the St. Croix River. If you are considering a conservation project on your property or have any questions about the MSCWMO watershed please contact Matt Oldenburg-Downing, Administrator of the MSCWMO at moldenburg-downing@mnwcd.org or Annie Perkins, the City of Afton appointed MSCWMO Board Manager at 651-592-3007.

BAYPORT

The City of Bayport is one of ten member communities of the Middle St. Croix Watershed Management Organization (MSCWMO) that collectively works to improve the water quality of Perro Creek and Lake St. Croix. The MSCWMO provides educational, technical, and financial assistance to the City of Bayport to effectively manage water resources. They also partner with the Washington Conservation District to provide design and cost share assistance for voluntary conservation projects on private lands that reduce sediment and phosphorous pollution entering Perro Creek and the St. Croix River. If you are considering a conservation project on your property or have any questions about the watershed please contact Matt Oldenburg-Downing, Administrator of the MSCWMO at moldenburg-downing@mnwcd.org or Council Member Orin Kip, the City appointed MSCWMO Board Manager, at [651-439-7312](tel:651-439-7312).

BAYTOWN TOWNSHIP

Baytown Township is one of ten member communities of the Middle St. Croix Watershed Management Organization (MSCWMO) that collectively works to improve the water quality of Lake St. Croix. The MSCWMO provides educational, technical, and financial assistance to Baytown Township to effectively manage water resources. They also partner with the Washington Conservation District to provide design and cost share assistance for voluntary conservation projects on private lands that reduce sediment and phosphorous pollution entering the St. Croix River. If you are considering a conservation project on your property or have any questions about the watershed please contact Matt Oldenburg-Downing, Administrator of the MSCWMO at moldenburg-downing@mnwcd.org or Township Board Member Avis Peters, the Township appointed MSCWMO Board Manager, at 651-430-8163.

LAKELAND

The City of Lakeland is one of ten member communities of the Middle St. Croix Watershed Management Organization (MSCWMO) that collectively works to improve the water quality of Lake St. Croix. The MSCWMO provides educational, technical, and financial assistance to the City of Lakeland to effectively manage water resources. They also partner with the Washington

MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

2025 ANNUAL REPORT

Conservation District to provide design and cost share assistance for voluntary conservation projects on private lands that reduce sediment and phosphorous pollution entering the St. Croix River. If you are considering a conservation project on your property or have any questions about the watershed please contact Matt Oldenburg-Downing, Administrator of the MSCWMO at moldenburg-downing@mnwcd.org or Councilman Dave Millard, the City appointed MSCWMO Board Manager, at 651-408-3483.

LAKELAND SHORES

The City of Lakeland Shores is one of ten member communities of the Middle St. Croix Watershed Management Organization (MSCWMO) that collectively works to improve the water quality of Lake St. Croix. The MSCWMO provides educational, technical, and financial assistance to the City of Lakeland Shores to effectively manage water resources. They also partner with the Washington Conservation District to provide design and cost share assistance for voluntary conservation projects on private lands that reduce sediment and phosphorous pollution entering the St. Croix River. If you are considering a conservation project on your property or have any questions about the watershed please contact Matt Oldenburg-Downing, Administrator of the MSCWMO at moldenburg-downing@mnwcd.org or Brian Zeller, the City appointed MSCWMO Board Manager, at 612-325-3038.

LAKE ST CROIX BEACH

The City of Lake St. Croix Beach is one of ten member communities of the Middle St. Croix Watershed Management Organization (MSCWMO) that collectively works to improve the water quality of Lake St. Croix. The MSCWMO provides educational, technical, and financial assistance to the City of Lake St. Croix Beach to effectively manage water resources. They also partner with the Washington Conservation District to provide design and cost share assistance for voluntary conservation projects on private lands that reduce sediment and phosphorous pollution entering the St. Croix River. If you are considering a conservation project on your property or have any questions about the watershed please contact Matt Oldenburg-Downing, Administrator of the MSCWMO at moldenburg-downing@mnwcd.org or Mayor Tom McCarthy, the City appointed MSCWMO Board Manager, at 651-436-7031.

OAK PARK HEIGHTS

The City of Oak Park Heights is one of ten member communities of the Middle St. Croix Watershed Management Organization (MSCWMO) that collectively works to improve the water quality of Perro Pond and Lake St. Croix. The MSCWMO provides educational, technical, and financial assistance to the City of Oak Park Heights to effectively manage water resources. They also partner with the Washington Conservation District to provide design and cost share assistance for voluntary conservation projects on private lands that reduce sediment and phosphorous pollution entering Perro Pond or St. Croix River. If you are considering a conservation project on your property or have any questions about the watershed please contact Matt Oldenburg-Downing, Administrator of the MSCWMO at moldenburg-downing@mnwcd.org or Council Member Carly Johnson, the City appointed MSCWMO Board Manager and the Treasurer for the watershed, at 651-261-5801.

ST. MARY'S POINT

The City of St. Mary's Point is one of ten member communities of the Middle St. Croix Watershed Management Organization (MSCWMO) that collectively works to improve the water quality of Lake

MIDDLE ST. CROIX WATERSHED MANAGEMENT ORGANIZATION

St. Croix. The MSCWMO provides educational, technical, and financial assistance to the City of St. Mary's Point to effectively manage water resources. They also partner with the Washington Conservation District to provide design and cost share assistance for voluntary conservation projects on private lands that reduce sediment and phosphorous pollution entering the St. Croix River. If you are considering a conservation project on your property or have any questions about the watershed please contact Matt Oldenburg-Downing, Administrator of the MSCWMO at moldenburg-downing@mnwcd.org or Council Member Tom Grahek, the City appointed MSCWMO Board Manager, at 612-417-5394.

STILLWATER

The City of Stillwater is one of ten member communities of the Middle St. Croix Watershed Management Organization (MSCWMO) that collectively works to improve the water quality of Lily Lake, Lake McKusick, and Lake St. Croix. The MSCWMO provides educational, technical, and financial assistance to the City of Stillwater to effectively manage water resources. They also partner with the Washington Conservation District to provide design and cost share assistance for voluntary conservation projects on private lands that reduce sediment and phosphorous pollution entering Lily Lake, Lake McKusick, or the St. Croix River. If you are considering a conservation project on your property or have any questions about the watershed please contact Matt Oldenburg-Downing, Administrator of the MSCWMO at molding@mnwcd.org or Council Member Ryan Collins, the City appointed MSCWMO Board Manager, at 651-246-8264.

WEST LAKELAND TOWNSHIP

West Lakeland Township is one of ten member communities of the Middle St. Croix Watershed Management Organization (MSCWMO) that collectively works to improve the water quality of Lake St. Croix. The MSCWMO provides educational, technical, and financial assistance to West Lakeland Township to effectively manage water resources. They also partner with the Washington Conservation District to provide design and cost share assistance for voluntary conservation projects on private lands that reduce sediment and phosphorous pollution entering the St. Croix River. If you are considering a conservation project on your property or have any questions about the watershed please contact Matt Oldenburg-Downing, Administrator of the MSCWMO at moldenburg-downing@mnwcd.org or Board Member Rachel Dana, the Township appointed Board Manager, at 612-751-7583.

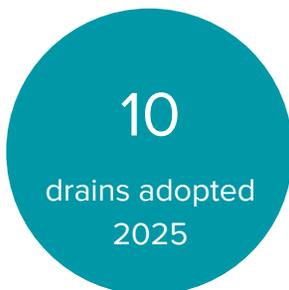
ADOPT A STORM DRAIN



Annual Report



We're Making a Difference!



Drain Cleaning & Collection Data

26, or 20.6%, of Middle St. Croix participants, reported cleaning 43 drains in 2025.

Middle St. Croix participants collected 454. lbs of debris from their adopted storm drains in 2025.

Debris Type	Amount (lbs)
Brown Leaves	293.5
Grass and Green Leaves	32.9
Sediment and dirt	114.5
Trash	13.1
Pet Waste	0.0
Recyclables	0.0
Salt	0.0



Month	New Participants	Drains Adopted	Debris collected (lbs)	Time spent (hrs)
January	0	0	49.2	2.7
February	0	0	0.0	0.1
March	0	0	34.0	1.0
April	0	1	52.0	3.0
May	1	3	30.7	0.7
June	0	0	14.8	0.9
July	0	0	1.0	0.3
August	4	4	0.0	0.0
September	0	0	17.7	0.3
October	1	2	31.4	1.5
November	0	0	112.6	1.8
December	0	0	110.7	4.8
TOTALS	6	10	454.0	16.9

2 **Adopt-a-Drain**

A Project of Hamline University’s Center for Global Environmental Education.



PARTICIPANT INFORMATION

Annual Report
2025 Middle St. Croix

Participant Types

Participant type	Number of participants in 2025	Total number of participants	Percent of participants in 2025	Percent of total participants
Individual	5	117	83.3%	92.9%
Business	1	6	16.7%	4.8%
Community Organization	0	3	0.0%	2.4%
School or Classroom	0	0	0.0%	0.0%

How Participants heard about Adopt-a-Drain

Referral Type	Number of participants in 2025	Number of participants total	Percent of participants in 2025	Percent of total participants
Other	3	18	50.0%	14.3%
My city or watershed district	1	9	16.7%	7.1%
Community Meeting or Event	1	1	16.7%	0.8%
Friend, family or neighbor	0	12	0.0%	9.5%
News outlet	0	7	0.0%	5.6%
Social media (Facebook, Next Door)	0	4	0.0%	3.2%
Door hanger or flyer	0	3	0.0%	2.4%
Yard sign	0	2	0.0%	1.6%

In addition, 4 participants from Middle St. Croix Watershed signed up at the 2025 MN State Fair Adopt-a-Drain exhibit.

3 Adopt-a-Drain

A Project of Hamline University’s Center for Global Environmental Education.

adopt-a-drain.org



GEOGRAPHIC BREAKDOWN

Annual Report
2025 Middle St. Croix

Subwatersheds

2025 Data

Sub-watershed	Drains adopted	Drains cleaned	Debris collected (lbs)	Time spent (hours)
Lily Lake	4	11	107.5	3.8
Lake St Croix Direct North	3	14	172.6	7.3
McKusick Lake	2	11	140.7	3.3
Lake St Croix	1	3	20.0	1.2
Middle St. Croix Wetlands	0	4	13.2	1.3



GEOGRAPHIC BREAKDOWN

Annual Report
2025 Middle St. Croix

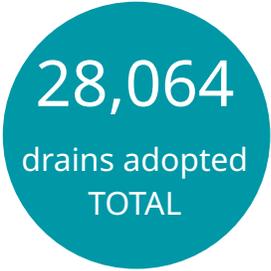
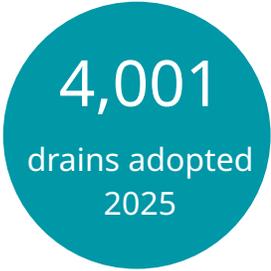
Cities

2025 Data

City	Drains adopted	Drains cleaned	Debris collected (lbs)	Time spent (hours)
Stillwater	9	35	420.7	14.3
Oak Park Heights	1	3	20.0	1.2
West Lakeland Twp.	0	3	8.1	0.9
Bayport	0	2	5.2	0.6



MINNESOTA STATE SUMMARY



3,705, or 23.8%, of Minnesota participants, reported cleaning 6,852 drains in 2025.

Minnesota participants collected 127,321.9 lbs of debris from their adopted storm drains in 2025.

Debris Type	Amount (lbs)
Brown Leaves	67,620.0
Grass and Green Leaves	8,191.7
Sediment and dirt	40,017.0
Trash	11,173.0
Pet Waste	49.0
Recyclables	0.0
Salt	271.2

Month	New Participants	Drains Adopted	Debris collected (lbs)	Time spent (hrs)	
January	62	203	20,113.2	708.1	1,073.0
February	30	66	2,142.2	86.3	427.0
March	90	247	6,338.0	243.1	834.0
April	213	445	8,374.8	212.1	1,094.0
May	139	320	14,939.6	356.4	1,201.0
June	108	305	13,918.1	230.4	1,092.0
July	142	395	5,165.5	171.6	1,124.0
August	724	938	5,928.3	193.5	1,102.0
September	161	409	5,667.4	153.9	991.0
October	185	379	8,001.0	231.7	1,133.0
November	72	190	25,420.7	642.5	1,942.0
December	29	104	11,313.1	409.6	794.0
TOTALS	1,955	4,001	127,321.9	3,639.2	6,852.0

2025 NATIONAL ADOPT-A-DRAIN SUMMARY



5,70 Adopt-a-Drain participants reported cleaning 9,194 drains in 2025. They reported 101,841 cleanings, collecting 164,125 lbs of debris from their adopted storm drains, and spending a combined total of 5,273 hours keeping their drains clear.



In November, we celebrated the removal of over **1,000,000 lbs** of debris by Adopt-a-Drain participants.

Debris Type	Amount (lbs)
Brown Leaves	87,571.1
Grass and Green Leaves	10,122.8
Sediment and dirt	53,060.7
Trash	12,898.6
Pet Waste	57.1
Recyclables	115.0
Salt	299.9



We ran two national outreach campaigns this year: An Earth Day campaign in April and a Stormwater Awareness campaign in September.

MEMORANDUM

TO: Matt Oldenburg-Downing | MSCWMO Administrator

FROM: Rebecca Nestingen, PE | WCD Engineer

DATE: 02/05/2026

RE: Desktop Erosion Analysis

At the end of 2025, the Minnesota Geospatial Information Office published second-generation lidar data. In MSCWMO the first generation lidar data was collected in 2011 and the second generation was collected in 2022. These snapshots in time of the topographic surface allow for quick and efficient assessments of the landscape and the natural and anthropogenic changes of the landscape that occurred during that time period.

ArcGIS Pro desktop software and the embedded geoprocessing tools allow for the subtraction one dataset from another dataset to generate a third dataset that essentially shows the increase or decrease in the ground surface elevation. Of particular interest are areas where there is a decrease in surface elevation which may indicate soil loss due to erosion, as shown in the example figure below.



I'd like to request the authorization of a task order amendment to the 2026 MSCWMO Services Agreement to complete further review of the lidar analysis output. The goals of the review would

be to identify areas of potential concern where soil loss is not due to known mining or development activity and inventory areas of erosion that intersect with areas of steep slopes which indicate an actively eroding ravine. Following the identification of eroding ravines, these areas could be prioritized according to magnitude of soil loss and likelihood of sediment transport and delivery to surface waters. A technical report documenting the analysis procedure and findings will be generated as a final deliverable along with interactive map layers. These deliverables could provide future project implementation scoping or potentially serve as a minor amendment to the WMP to make potential projects eligible for grant funding. The estimated budget to complete this work is \$3,264.

Task Description	Hours	Rate	Cost
Geoprocess raster data to create polygon features for soil loss areas and steep slopes	4	\$ 102.00	\$ 408.00
QA/QC output to remove areas identified in mining and construction/development project areas	6	\$ 102.00	\$ 612.00
Prioritize ravines per statistics (area, flow length, downstream storage) indicating soil loss rate and sediment transport potential	12	\$ 102.00	\$ 1,224.00
Publish a map series in pdf format and online interactive web map of resulting dataset	4	\$ 102.00	\$ 408.00
Prepare a technical memorandum documenting the analysis procedure and findings	6	\$ 102.00	\$ 612.00
Total Estimate	32		\$ 3,264.00



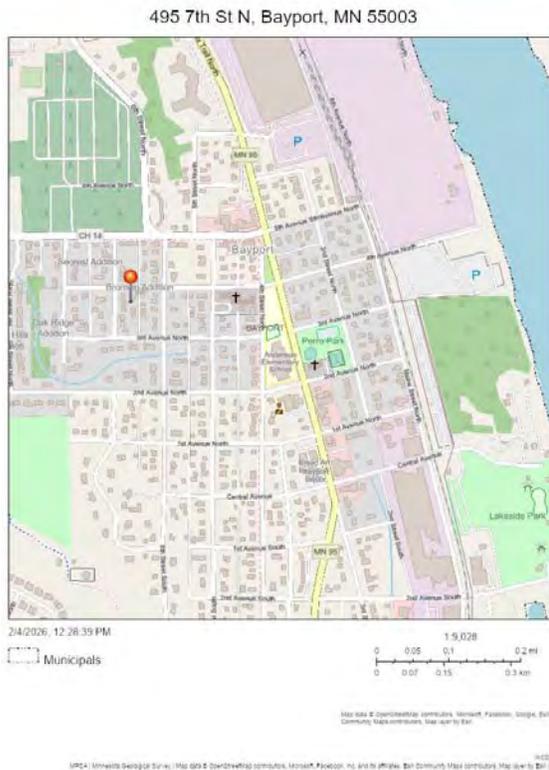
TO: Middle St. Croix Board of Managers
FROM: Brett Stolpestad, Landscape Restoration Specialist, Washington Conservation District
DATE: February 4, 2026
RE: Halsten Stewardship Grant Request

Bayport resident Margaret Halsten is applying for a 2026 MSCWMO Stewardship Grant to covert approximately 550 square feet of existing turf on her property to a native woodland pollinator garden. Stewardship Grant funds will be used to reimburse for native plant and seed purchases. The goal of the project is to reduce runoff volume from the property and to provide diverse pollen and nectar resources to pollinators throughout the season.

Project Estimate: \$1,500.00
Amount of Phosphorus removed: n/a
Cost Share requested: \$500

Requested Board Action: Motion by Board Member 1, seconded by Board Member 2, to approve encumbrance of \$500 cost share for the Halsten Turf-to-Pollinator Garden project at 495 7th St N, Bayport, MN 55003.

Location & Photos:





TO: MSCWMO Board of Managers
FROM: Matthew Oldenburg-Downing
DATE: March 3, 2026
RE: **7b) FY27 CWF Grant Application Request**

The Board of Water and Soil Resources (BWSR) released a request for applications on Feb 11, 2026 for its Clean Water Fund Competitive Grants Program. More than \$6 million in grants and up to \$13 million in loans are available to local governments.

As part of the recently adopted MSCWMO WMP the 2024 BMP inventory and assessment was completed. This report identified ~25 practices in need of retrofit to restore and improve the water quality benefits to Lily, McKusick and St. Croix Lakes. Staff is seeking Board authorization to apply for a \$120,000 CWF grant to implement the recommended actions from this report.

Recommended Action: Motion by (Manager 1) to authorize staff to apply for a FY27 CWF Grant. Second by (Manager 2). Vote taken.



TO: Matt Oldenburg-Downing, Administrator
FROM: Rebecca Nestingen, PE
DATE: March 6, 2026
RE: 9a) Plan Reviews/Submittals

The following is a summary of recent activity on projects submittals which qualify for plan review under the MSCWMO 2015 Watershed Management Plan (WMP):

- **BayHaven Second Addition.** Submittal items were received on December 23rd, 2025 for the ten single family detached villa homes at BayHaven Second Addition (4703 Stagecoach Trail). Revised submittals were received February 4th and 19th, 2026. The proposed project qualifies for full review under the MSCWMO 2025 Watershed Management Plan ((WMP) for subdivision of four or more lots. The proposed project fully meets MSCWMO volume retention and rate control standards. *MSCWMO staff recommends board approval with one (1) condition.*
- **Bridgeview and Aiple Parking Lots.** Submittal items were received on December 15th, 2025 for parking lot reconstruction of the Bridgeview Parking Lot within the MSCWMO boundaries and the City of Stillwater. Revised submittals including the Aiple Parking Lot were receive February 3rd, 2026. The proposed project qualifies for full review under the MSCWMO 2025 Watershed Management Plan (WMP) for over 6000 square feet of reconstructed impervious. The proposed project fully meets MSWCMO MIDS volume retention and rate control standards. *MSCWMO staff recommends board approval with two (2) conditions.*



March 6, 2026

Matt Kline
City of Bayport
294 N Third St.
Bayport, MN 55003

Dear Mr. Kline,

The Middle St. Croix Watershed Management Organization (MSCWMO) received initial submittal materials on December 23rd, 2025 for the ten single family detached villa homes at BayHaven Second Addition (4703 Stagecoach Trail N) within the MSCWMO boundaries and the City of Bayport. Revised submittals were received February 4th, 2026 and the geotechnical report was received February 19th, 2026. The proposed project qualifies for full review under the MSCWMO 2015 Watershed Management Plan (WMP) since it involves a subdivision of 4 or more lots, creates more than 6,000 square feet of impervious surface, and involves earthwork of more than 100 cubic yards. The MSCWMO staff have reviewed the project and found the plans as submitted are meeting MSCWMO standards contingent upon the following one (1) item:

1. Show and describe stabilization method for areas of concentrated flow (swales) and flatter slopes (including ALL exposed soils).

MSCWMO review process information can be downloaded from www.mscwmo.org. Please contact me at 651-796-2227 or moldenburg-downing@mnwcd.org if you have any questions or comments regarding this correspondence.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Oldenburg-Downing".

Matt Oldenburg-Downing | Administrator
Middle St. Croix Watershed Management Organization



MSCWMO Review ID: 25-026

Review Date: 02/06/2026

Project Name: BayHaven at Bayport Second Addition

Location: 4703 Stagecoach Trail

Applicant: Leonard Pratt

Purpose: Ten new single family detached Villa homes

Recommendation: Plan is meeting MSCWMO standards contingent upon the following one (1) item:

1. Show and describe stabilization method for areas of concentrated flow (swales) and flatter slopes (including ALL exposed soils).

Applicability:

- Any project undertaking grading, filling, or other land alteration activities which involve movement of 100 cubic yards of earth or removal of vegetation on greater than 10,000 square feet of land.
- Any project that creates or fully reconstruct 6,000 square feet or more of impervious surface.
- All major subdivisions or minor subdivisions that are part of a common plan of development. Major subdivisions are defined as subdivisions with 4 or more lots.
- Any project with wetland impacts, grading within public waters, grading within buffers or within 40-feet of the bluff line.
- Development projects that impact 2 or more of the member communities.
- New or redevelopment projects within the St. Croix Riverway that require a building permit that add 500 square feet of additional impervious surface.
- Any project requiring a variance from the current local impervious surface zoning requirements for the property.
- Any land development activity, regardless of size, that the City determines is likely to cause an adverse impact to an environmentally sensitive area or other property, or may violate any other erosion and sediment control standard set by the member community.

Submittal Items:

- A completed and signed project review application form and review fee.
- Grading Plan/Mapping Exhibits:
 - Property lines and delineation of lands under ownership of the applicant.
 - NA Delineation of existing on-site wetlands, shoreland and/or floodplain areas (including any buffers).
 - NA Ordinary High Water (OHW) elevations and datum, as determined by the MDNR (if applicable).
- Existing and proposed site contour elevations related to NAVD 1988 datum (preferred) or NGVD, 1929. Datum must be noted on exhibits.

- Drainage easements covering land adjacent to ponding areas, wetlands, and waterways up to their 100-year flood levels and covering all ditches and storm sewers. Access easements to these drainage easements and to other stormwater management facilities shall also be shown. (Not required for sites within public right-of-way)
- Minimum building elevation for each lot.
- Identification of downstream water body.
- Delineation of the subwatersheds contributing runoff from off-site, proposed and existing on-site subwatersheds, and flow directions/patterns.
- Location, alignment, and elevation of proposed and existing stormwater facilities.
- Existing and proposed normal water elevations and the critical (the highest) water level produced from the 100-year 24-hour storms.
- Location of the 100-year flood elevation, natural overflow elevation, and lowest floor elevations.
- A Stormwater Pollution Prevention Plan in compliance with the requirements of the NPDES SDS Construction Stormwater Permit.
- Permanent Stormwater Management System in compliance with the requirements of the NPDES SDS Construction Stormwater Permit and MSCWMO Performance Standards.
 - Impervious areas (Pre- and Post-Construction).
 - Construction plans and specifications for all proposed stormwater management facilities.
 - Location(s) of past, current or future onsite well and septic systems (if applicable).
- Other exhibits required to show conformance to these Performance Standards.
- Hydrologic/Hydraulic Design Exhibits:
 - All hydrologic and hydraulic computations completed to design the proposed stormwater management facilities shall be submitted. Model summaries must be submitted. The summaries shall include a map that corresponds to the drainage areas in the model and all other information used to develop the model.
 - A table (or tables) must be submitted showing the following:
 - A listing of all points where runoff leaves the site and the existing and proposed stormwater runoff rates and volumes.
 - A listing of the normal water levels under existing and proposed conditions and the water levels produced from the storm and runoff events listed above for all on-site wetlands, ponds, depressions, lakes, streams, and creeks.
- A proposed maintenance agreement, which may be in the format of Appendix I, or other form approved by the city.
- This site drains to, and is within one mile of special or impaired water and complies NPDES CSW additional requirements.

STORMWATER MANAGEMENT PERFORMANCE STANDARDS

MSCWMO Member Communities

Afton • Bayport • Baytown • Lakeland • Lakeland Shores • Lake St. Croix Beach • Oak Park Heights
St. Mary's Point • Stillwater • West Lakeland

- Water quality treatment is provided prior to direct discharge of stormwater to wetlands and all other water bodies.

Rate and Flood Control Standards

- The peak rate of stormwater runoff from a newly developed or redeveloped site shall not exceed the 2-, 10-, and 100-year 24-hour storms with respective 2.8, 4.2, and 7.3-inch rainfall depths with MSCWMO approved time distribution based on Atlas 14 for existing and proposed conditions. The runoff curve number for existing agriculture areas shall be less than or equal to the developed condition curve number. The newly developed or redeveloped peak rate shall not exceed the existing peak rate of runoff for all critical duration events, up to and including the 100-year return frequency storm event for all points where discharges leave a site during all phases of development.
- Predevelopment conditions assume “good hydrologic conditions” for appropriate land covers as identified in TR-55 or an equivalent methodology. Runoff curve numbers have been increased where predevelopment land cover is cropland:

Hydrologic Soil Group A	Runoff Curve Number 56
Hydrologic Soil Group B	Runoff Curve Number 70
Hydrologic Soil Group C	Runoff Curve Number 79
Hydrologic Soil Group D	Runoff Curve Number 83

- Computer modeling analyses includes secondary overflows for events exceeding the storm sewer systems level-of-service up through the critical 100-year event.

NA In sub-areas of a landlocked watershed, the proposed project does not increase the predevelopment volume or rate of discharge from the sub-area for the 10-year return period event.

- Flowage easements up to the 100-yr flood level have been secured for stormwater management facilities (such as ditches and storm sewers).
- Lowest floor elevations of structures built adjacent to stormwater management features and other water bodies are a minimum of two feet above the 100-year flood elevation and a minimum of two feet above the natural overflow of landlocked basins.

Volume Control Standards

- Calculations/computer model results indicate stormwater volume is controlled for new development and redevelopment requirements per the MSCWMO Design Standards.

Volume Retention Required (cu. ft.)	Volume Retention Provided (cu. ft.)						
$62,806 \text{ sq. ft.} \times \frac{1.1 \text{ in}}{12 \text{ in/ft}} = 5,757 \text{ cu. ft.}$	<table border="0"> <tr> <td>BMP</td> <td>Volume</td> </tr> <tr> <td>Infiltration Basin #1</td> <td>5,622 cu. ft.</td> </tr> <tr> <td>Swale #1</td> <td>168 cu. ft.</td> </tr> </table>	BMP	Volume	Infiltration Basin #1	5,622 cu. ft.	Swale #1	168 cu. ft.
BMP		Volume					
Infiltration Basin #1	5,622 cu. ft.						
Swale #1	168 cu. ft.						
$XX,XXX \text{ sq. ft.} \times \frac{0.55 \text{ in}}{12 \text{ in/ft}} = X,XXX \text{ cu. ft.}$							
Total Required Volume Retention = 5,757 cu. ft.	Total Provided Volume Retention = 5,790 cu. ft.						

Flexible Treatment Options (when applicable)

- NA Applicant demonstrated qualifying restrictions as defined in Section 7.2.2 (4) of the 2015 MSCWMO Watershed Management Plan that prohibits the infiltration of the entire required volume.
- NA FTO #1: MIDS calculator submission removes 75% of the annual total phosphorous.
- NA FTO #2: MIDS calculator submission removes 60% of the annual total phosphorous.
- NA FTO #3: Offsite mitigation equivalent to the volume reduction standard is provided.

Infiltration/Filtration Design Standards

- Proposed stormwater management features meet or exceed NPDES General Construction Permit requirements are designed in conformance with the most recent edition of the State of Minnesota Stormwater Manual.
- None of the following conditions exist that prohibit infiltration of stormwater on the site
 - a. Areas where vehicle fueling and maintenance occur.
 - b. Areas where contaminants in soil or groundwater will be mobilized by infiltrating stormwater.
 - c. Areas where soil infiltration rates are field measured at more than 8.3 inches per hour unless amended to slow the infiltration rate below 8.3 inches per hour.
 - d. Areas with less than three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally saturated soils or the top of bedrock.
 - e. Areas of Hydrologic Soil Group D (clay) soils
 - f. Areas within DSWMAs and ERAs unless infiltration is deemed appropriate based on Minnesota Stormwater Manual Guidance **The property is located within a Drinking Water Supply Management Area (DWSMA) and a wellhead protection area. A higher level of engineering was provided with the original BayHaven Residential Development.**
 - g. Areas within 1,000 feet up-gradient, or 100 feet down-gradient of active karst features unless allowed by a local unit of government with a current MS4 permit.
 - h. Areas that receive runoff from industrial facilities not authorized to infiltration stormwater under the NPDES stormwater permit for industrial activities.

- Minimum setbacks from the Minnesota Department of Health for infiltration practices are met

Setback	Minimum Distance (ft.)
Property line	10
Building foundation*	10
Private well	35
Public water supply well	50
Septic system tank/leach field	35

*Minimum with slopes directed away from the building

- Pretreatment devices(s) remove at least 50% of sediment loads. If downstream from a potential hot spot, a skimmer is in place to facilitate cleanup.
- Water quality volume will be discharged through infiltration or filtration media in 48 hours or less.
- For bioretention (biofiltration and bioinfiltration) volume control management facilities above ground with vegetation the period of inundation shall be calculated using the maximum water depth below the surface discharge elevation and the soil infiltration rate.
- For infiltration basin volume control management facilities the period of inundation shall be calculated using the maximum water depth below the surface discharge elevation and the soil infiltration rate.

- Appropriate soil borings have been conducted that meet the minimum standards.
 - a. A minimum of one boring was conducted at the location of the infiltration facility for facilities up to 1,000 ft²; between 1,000 and 5,000 ft², two borings; between 5,000 and 10,000 ft², three borings; and greater than 10,000 ft², 4 borings plus an additional boring for every 2,500 ft² beyond 12,500 ft².
 - b. Soil borings extend a minimum of five feet below the bottom of the infiltration practice. If fractured bedrock is suspected, the soil boring goes to a depth of at least ten feet below the proposed bottom of the volume control facility.
 - c. A minimum of three feet of separation to the seasonal water table and/or bedrock.
 - d. Identify unified soil classification.
 - The least permeable soils horizon identified in the soil boring dictated the infiltration rate.
 - Additional flows are bypassed and are routed through stabilized discharge points.
- NA Filtration basin demonstrates a basin draw down between 24 hours and 48 hours.
- NA Filtration system Iron Enhanced Sand Filter is sized to bind soluble phosphorous removal for 30 year functional life of the system using the published value of 17lbs.phosphorous removal per 20 yards of 5% by weight iron filings to 95% sand.
- Identify as build survey and method to demonstrate infiltration or filtration basin is functioning.
 - Construction plans provide adequate construction guidance to prevent clogging or compaction and demonstrate performance.
 - a. Excavation within 2.0 feet of final grade for infiltration/filtration systems is prohibited until contributing drainage areas are constructed and fully stabilized.
 - b. Rigorous sediment and erosion controls planned to divert runoff away from the system..
 - c. Installation of volume control facilities must occur in dry soil conditions. Excavation, soil placement and rapid stabilization of perimeter slopes must be accomplished prior to the next precipitation event.
 - d. Excavation shall be performed by an excavator with a toothed bucket. Use excavator bucket to place materials. Construction equipment shall not be allowed into the basin.
 - e. Prior to the release of any remaining fee or security, the permit holder must provide documentation that constructed volume control facilities perform as designed.
 - There is a way to visually verify the system is operating as designed.
 - A minimum 8.0' maintenance access is provided to all stormwater facilities.

EROSION AND SEDIMENT CONTROL PERFORMANCE STANDARDS

- A Stormwater Pollution Prevention Plan (SWPPP) that meets the National Pollutant Discharge Elimination System (NPDES) requirements.

Narrative

- Identify the person knowledgeable and experienced who will oversee the implementation of the SWPPP; the installation, inspection, and maintenance of the BMPs.
 - a. Identifies the person who will oversee the BMP inspection and maintenance.
 - b. Identify the training requirements are satisfied.
 - c. Inspections performed once every 7 days.

- d. Inspections performed within 24 hours of a rain event greater than 0.5 in/24 hours.
- e. Inspection and Maintenance records include:
 - i. Date and time of inspection.
 - ii. Name of person(s) conducting inspections.
 - iii. Finding of inspections, including the specific location where corrective actions are needed.
 - iv. Corrective actions taken (including dates, times, and party completing maintenance activities).
 - v. Date and amount of rainfall events greater than 0.5 in/24 hours.
 - vi. Rainfall amounts must be obtained by a properly maintained rain gauge installed onsite, or by a weather station that is within one mile or by a weather reporting system.
 - vii. Requirements to observe, describe, and photograph any discharge that may be occurring during the inspection.
 - viii. All discovered nonfunctional BMPs must be repaired, replaced, or supplemented with functional BMPs within 24 hours after discovery, or as soon as field conditions allow.
- Describes procedures to amend the SWPPP and establish additional temporary ESC BMPs as necessary for site conditions.
- Describes the installation timing for all Erosion Sediment Control (ESC) Best Management Practices (BMPs).
- Describes final stabilization methods for all exposed areas. **Erosion control plan only shows stabilization with erosion control blanket on slopes 3:1 or steeper, describe stabilization method for areas of concentrated flow (swales) and flatter slopes (including ALL exposed soils).**
- Methods used to minimize soil compaction and preserve topsoil must be described.
- Describes dewatering technique to prevent nuisance conditions, erosion, or inundation of wetlands.
- Identifies any specific chemicals and the chemical treatment systems that may be used for enhancing the sedimentation process on the site, and how compliance will be achieved with the permit requirements.
- Describes the following pollution prevention management measures:
 - a. Storage, handling, and disposal of construction products, materials, and wastes.
 - b. Fueling and maintenance of equipment or vehicles; spill prevention and response.
 - c. Vehicle and equipment washing.
 - d. No engine degreasing allowed on site.
 - e. Containment of Concrete and other washout waste.
 - f. Portable toilets are positioned so that they are secure.

Plan Sheets

- NA Temporary Sediment Basins required (10 acres draining to common location or 5 acres App. A) and design meets the following criteria:
- a. Adequately sized – 2-year, 24-hour storm, minimum 1,800 feet/acre; or no calculative minimum 3,600ft³/acre.
 - b. Designed to prevent short circuiting.
 - c. Outlets designed to remove floating debris.
 - d. Outlets designed to allow complete drawdown.
 - e. Outlets designed to withdraw water from the surface
 - f. Outlets have energy dissipation.

- g. Have a stabilized emergency spillway.
 - h. Situated outside of surface waters and any natural buffers.
- Locations and types of all temporary and permanent Erosion Control BMPs.
 - a. Exposed soils have erosion protection/cover initiated immediately and finished within 7 days.
 - b. Wetted perimeters of ditches stabilized within 200 feet of surface water within 24 hours.
 - c. Pipe outlets have energy dissipation within 24 hours of connecting.
 - Locations and types of all temporary and permanent Sediment Control BMPs.
 - a. Sediment control practices established on down gradient perimeters and upgradient of any buffer zones.
 - b. All inlets are protected.
 - c. Stockpiles have sediment control and placed in areas away from surface waters or natural buffers.
 - d. Construction site entrances minimize street tracking?
 - e. Plans minimize soil compaction and, unless infeasible to preserve topsoil.
 - f. Fifty foot natural buffers preserved or (if not feasible) provide redundant sediment controls when a surface water is located within 50 feet of the project's earth disturbances and drains to the surface water.
 - Tabulated quantities of all erosion prevention and sediment control BMPs.
 - Stormwater flow directions and surface water divides for all pre- and post-construction drainage areas.
 - Locations of areas not to be disturbed (buffer zones).
- NA Location of areas where construction will be phased to minimize duration of exposed soil areas.
- NA Blufflines are protected from construction activities in urban (40 foot buffer) areas and rural areas (100-foot buffer).

WETLAND PERFORMANCE STANDARDS

- Direct discharge of stormwater to wetlands and all other water bodies without water quality treatment is prohibited.
- Any potential changes to the hydrology of the wetland (i.e. changes to the outlet elevation or contributing drainage area) must be reviewed to evaluate the impact of both the existing and proposed wetland conditions and approved by the MSCWMO.
- Land-altering activities shall not increase the bounce in water level or duration of inundation from a 2.0-inch 24-hour storm for any downstream wetland beyond the limit specified in Table 7.2 for the individual wetland susceptibility class.

LAKE, STREAM AND WETLAND BUFFER PERFORMANCE STANDARDS

- NA A buffer zone of unmowed natural vegetation is maintained or created upslope of all water bodies (wetlands, streams, lakes).
- NA A 50 foot natural buffer or (if a buffer is infeasible) provide redundant sediment controls when a surface water is located within 50 feet of the project's earth disturbances and stormwater flows to the surface water.
- NA If adjacent to a Special or Impaired Water an undisturbed buffer zone of not less than 100 linear feet from the special water is maintained both during construction and as a permanent feature post construction.



March 6, 2026

Shawn Sanders
City of Stillwater
216 N Fourth Street
Stillwater, MN 55082

Dear Mr. Sanders,

The Middle St. Croix Watershed Management Organization (MSCWMO) received initial submittal materials on December 15th, 2025 for the proposed parking lot reconstruction at Bridgeview Parking Lot (1129-1145 Main St S) within the MSCWMO boundaries and the City of Stillwater. Revised submittals including the Aiple Parking Lot were received February 3rd, 2026. The proposed project qualifies for full review under the MSCWMO 2015 Watershed Management Plan (WMP) since it involves fully reconstructing 6000 square feet or more of impervious and work within public waters buffers. The MSCWMO staff have reviewed the project and found the plans as submitted are meeting MSCWMO standards contingent upon the following items:

1. Appropriate soil borings have been conducted that meet the minimum standards and demonstrate assumed design infiltration rate based on soil texture and three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally saturated soils.
2. Appropriate variances are approved for a structure within the OHW setback in the St. Croix River Overlay District.

MSCWMO review process information can be downloaded from www.mscwmo.org. Please contact me at 651-796-2227 or moldenburg-downing@mnwcd.org if you have any questions or comments regarding this correspondence.

Sincerely,

A handwritten signature in black ink, appearing to read 'Matt Oldenburg-Downing'.

Matt Oldenburg-Downing | Administrator
Middle St. Croix Watershed Management Organization



MSCWMO Review ID: 25-027

Review Date: 3/6/2026

Project Name: Bridgeview and Aiple Parking Lot

Location: 1129-1145 Main St S, Stillwater

Applicant: Dillon McClung, Stillwater

Purpose: Construction of a parking along the river

Recommendation: Plan is meeting MSCWMO standards contingent upon the following two (2) items:

1. Appropriate soil borings have been conducted that meet the minimum standards and demonstrate assumed design infiltration rate based on soil texture and three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally saturated soils.
2. Appropriate variances are approved for a structure within the OHW setback in the St. Croix River Overlay District.

Applicability:

- Any project undertaking grading, filling, or other land alteration activities which involve movement of 100 cubic yards of earth or removal of vegetation on greater than 10,000 square feet of land.
- Any project that creates or fully reconstruct 6,000 square feet or more of impervious surface.
- All major subdivisions or minor subdivisions that are part of a common plan of development. Major subdivisions are defined as subdivisions with 4 or more lots.
- Any project with wetland impacts, grading within public waters, grading within buffers or within 40-feet of the bluff line.
- Development projects that impact 2 or more of the member communities.
- New or redevelopment projects within the St. Croix Riverway that require a building permit that add 500 square feet of additional impervious surface.
- Any project requiring a variance from the current local impervious surface zoning requirements for the property.
- Any land development activity, regardless of size, that the City determines is likely to cause an adverse impact to an environmentally sensitive area or other property, or may violate any other erosion and sediment control standard set by the member community.

Submittal Items:

- A completed and signed project review application form and review fee.
- Grading Plan/Mapping Exhibits:
 - Property lines and delineation of lands under ownership of the applicant.
 - Delineation of existing on-site wetlands, shoreland and/or floodplain areas (including any buffers).

- Ordinary High Water (OHW) elevations and datum, as determined by the MDNR (if applicable).
- Existing and proposed site contour elevations related to NAVD 1988 datum (preferred) or NGVD, 1929. Datum must be noted on exhibits.

NA Drainage easements covering land adjacent to ponding areas, wetlands, and waterways up to their 100-year flood levels and covering all ditches and storm sewers. Access easements to these drainage easements and to other stormwater management facilities shall also be shown. (Not required for sites within public right-of-way)

NA Minimum building elevation for each lot.

- Identification of downstream water body.
- Delineation of the subwatersheds contributing runoff from off-site, proposed and existing on-site subwatersheds, and flow directions/patterns.
- Location, alignment, and elevation of proposed and existing stormwater facilities.
- Existing and proposed normal water elevations and the critical (the highest) water level produced from the 100-year 24-hour storms.

NA Location of the 100-year flood elevation, natural overflow elevation, and lowest floor elevations.

- A Stormwater Pollution Prevention Plan in compliance with the requirements of the NPDES SDS Construction Stormwater Permit.

NA Permanent Stormwater Management System in compliance with the requirements of the NPDES SDS Construction Stormwater Permit and MSCWMO Performance Standards.

- Impervious areas (Pre- and Post-Construction).
- Construction plans and specifications for all proposed stormwater management facilities.

NA Location(s) of past, current or future onsite well and septic systems (if applicable).

- Other exhibits required to show conformance to these Performance Standards.

- Hydrologic/Hydraulic Design Exhibits:

- All hydrologic and hydraulic computations completed to design the proposed stormwater management facilities shall be submitted. Model summaries must be submitted. The summaries shall include a map that corresponds to the drainage areas in the model and all other information used to develop the model.

- A table (or tables) must be submitted showing the following:

- A listing of all points where runoff leaves the site and the existing and proposed stormwater runoff rates and volumes.

NA A listing of the normal water levels under existing and proposed conditions and the water levels produced from the storm and runoff events listed above for all on-site wetlands, ponds, depressions, lakes, streams, and creeks.

NA A proposed maintenance agreement, which may be in the format of Appendix I, or other form approved by the city.

- This site drains to, and is within one mile of special or impaired water and complies NPDES CSW additional requirements.

STORMWATER MANAGEMENT PERFORMANCE STANDARDS

- Water quality treatment is provided prior to direct discharge of stormwater to wetlands and all other water bodies.

Rate and Flood Control Standards

- The peak rate of stormwater runoff from a newly developed or redeveloped site shall not exceed the 2-, 10-, and 100-year 24-hour storms with respective 2.8, 4.2, and 7.3-inch rainfall depths with MSCWMO approved time distribution based on Atlas 14 for existing and proposed conditions. The runoff curve number for existing agriculture areas shall be less than or equal to the developed condition curve number. The newly developed or redeveloped peak rate shall not exceed the existing peak rate of runoff for all critical duration events, up to and including the 100-year return frequency storm event for all points where discharges leave a site during all phases of development.
- Predevelopment conditions assume “good hydrologic conditions” for appropriate land covers as identified in TR-55 or an equivalent methodology. Runoff curve numbers have been increased where predevelopment land cover is cropland:

Hydrologic Soil Group A	Runoff Curve Number 56
Hydrologic Soil Group B	Runoff Curve Number 70
Hydrologic Soil Group C	Runoff Curve Number 79
Hydrologic Soil Group D	Runoff Curve Number 83

- NA Computer modeling analyses includes secondary overflows for events exceeding the storm sewer systems level-of-service up through the critical 100-year event.
- NA In sub-areas of a landlocked watershed, the proposed project does not increase the predevelopment volume or rate of discharge from the sub-area for the 10-year return period event.
- NA Flowage easements up to the 100-yr flood level have been secured for stormwater management facilities (such as ditches and storm sewers).
- NA Lowest floor elevations of structures built adjacent to stormwater management features and other water bodies are a minimum of two feet above the 100-year flood elevation and a minimum of two feet above the natural overflow of landlocked basins.

Volume Control Standards

- Calculations/computer model results indicate stormwater volume is controlled for new development and redevelopment requirements per the MSCWMO Design Standards.

Volume Retention Required (cu. ft.)	Volume Retention Provided (cu. ft.)						
$14,540 \text{ sq. ft.} \times \frac{1.1 \text{ in}}{12 \text{ in/ft}} = 1,333 \text{ cu. ft.}$	<table border="0"> <tr> <td>BMP</td> <td>Volume</td> </tr> <tr> <td>BMP #1</td> <td>1,565 cu. ft.</td> </tr> <tr> <td>BMP #2</td> <td>1,370 cu. ft.</td> </tr> </table>	BMP	Volume	BMP #1	1,565 cu. ft.	BMP #2	1,370 cu. ft.
BMP	Volume						
BMP #1	1,565 cu. ft.						
BMP #2	1,370 cu. ft.						
$4,937 \text{ sq. ft.} \times \frac{1.1 \text{ in}}{12 \text{ in/ft}} = 453 \text{ cu. ft.}$							

Total Required Volume Retention = 1,786 cu. ft.	Total Provided Volume Retention = 2,935 cu. ft.
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Flexible Treatment Options (when applicable)

- NA Applicant demonstrated qualifying restrictions as defined in Section 7.2.2 (4) of the 2015 MSCWMO Watershed Management Plan that prohibits the infiltration of the entire required volume.
- NA FTO #1: MIDS calculator submission removes 75% of the annual total phosphorous.
- NA FTO #2: MIDS calculator submission removes 60% of the annual total phosphorous.
- NA FTO #3: Offsite mitigation equivalent to the volume reduction standard is provided.

Infiltration/Filtration Design Standards

- Proposed stormwater management features meet or exceed NPDES General Construction Permit requirements are designed in conformance with the most recent edition of the State of Minnesota Stormwater Manual.
- None of the following conditions exist that prohibit infiltration of stormwater on the site
 - a. Areas where vehicle fueling and maintenance occur.
 - b. Areas where contaminants in soil or groundwater will be mobilized by infiltrating stormwater.
 - c. Areas where soil infiltration rates are field measured at more than 8.3 inches per hour unless amended to slow the infiltration rate below 8.3 inches per hour.
 - d. Areas with less than three (3) feet of separation distance from the bottom of the infiltration system to the elevation of the seasonally saturated soils or the top of bedrock.
 - e. Areas of Hydrologic Soil Group D (clay) soils
 - f. Areas within DSWMAs and ERAs unless infiltration is deemed appropriate based on Minnesota Stormwater Manual Guidance
 - g. Areas within 1,000 feet up-gradient, or 100 feet down-gradient of active karst features unless allowed by a local unit of government with a current MS4 permit.
 - h. Areas that receive runoff from industrial facilities not authorized to infiltration stormwater under the NPDES stormwater permit for industrial activities.

- Minimum setbacks from the Minnesota Department of Health for infiltration practices are met

Setback	Minimum Distance (ft.)
Property line	10
Building foundation*	10
Private well	35
Public water supply well	50
Septic system tank/leach field	35

*Minimum with slopes directed away from the building

- Pretreatment device(s) remove at least 50% of sediment loads. If downstream from a potential hot spot, a skimmer is in place to facilitate cleanup.
- Water quality volume will be discharged through infiltration or filtration media in 48 hours or less.

- For bioretention (biofiltration and bioinfiltration) volume control management facilities above ground with vegetation the period of inundation shall be calculated using the maximum water depth below the surface discharge elevation and the soil infiltration rate.
 - For infiltration basin volume control management facilities the period of inundation shall be calculated using the maximum water depth below the surface discharge elevation and the soil infiltration rate.
 - Appropriate soil borings have been conducted that meet the minimum standards.
 - a. A minimum of one boring was conducted at the location of the infiltration facility for facilities up to 1,000 ft²; between 1,000 and 5,000 ft², two borings; between 5,000 and 10,000 ft², three borings; and greater than 10,000 ft², 4 borings plus an additional boring for every 2,500 ft² beyond 12,500 ft².
 - b. Soil borings extend a minimum of five feet below the bottom of the infiltration practice. If fractured bedrock is suspected, the soil boring goes to a depth of at least ten feet below the proposed bottom of the volume control facility.
 - c. A minimum of three feet of separation to the seasonal water table and/or bedrock.
 - d. Identify unified soil classification.
 - The least permeable soils horizon identified in the soil boring dictated the infiltration rate.
 - Additional flows are bypassed and are routed through stabilized discharge points.
- NA Filtration basin demonstrates a basin draw down between 24 hours and 48 hours.
- NA Filtration system Iron Enhanced Sand Filter is sized to bind soluble phosphorous removal for 30 year functional life of the system using the published value of 17lbs.phosphorous removal per 20 yards of 5% by weight iron filings to 95% sand.
- Identify as build survey and method to demonstrate infiltration or filtration basin is functioning.
 - Construction plans provide adequate construction guidance to prevent clogging or compaction and demonstrate performance.
 - a. Excavation within 2.0 feet of final grade for infiltration/filtration systems is prohibited until contributing drainage areas are constructed and fully stabilized.
 - b. Rigorous sediment and erosion controls planned to divert runoff away from the system.
 - c. Installation of volume control facilities must occur in dry soil conditions. Excavation, soil placement and rapid stabilization of perimeter slopes must be accomplished prior to the next precipitation event.
 - d. Excavation shall be performed by an excavator with a toothed bucket. Use excavator bucket to place materials. Construction equipment shall not be allowed into the basin.
 - e. Prior to the release of any remaining fee or security, the permit holder must provide documentation that constructed volume control facilities perform as designed.
 - There is a way to visually verify the system is operating as designed.
 - A minimum 8.0' maintenance access is provided to all stormwater facilities.

EROSION AND SEDIMENT CONTROL PERFORMANCE STANDARDS

- A Stormwater Pollution Prevention Plan (SWPPP) that meets the National Pollutant Discharge Elimination System (NPDES) requirements.

Narrative

- Identify the person knowledgeable and experienced who will oversee the implementation of the SWPPP; the installation, inspection, and maintenance of the BMPs.
 - a. Identifies the person who will oversee the BMP inspection and maintenance.
 - b. Identify the training requirements are satisfied.
 - c. Inspections performed once every 7 days.
 - d. Inspections performed within 24 hours of a rain event greater than 0.5 in/24 hours.
 - e. Inspection and Maintenance records include:
 - i. Date and time of inspection.
 - ii. Name of person(s) conducting inspections.
 - iii. Finding of inspections, including the specific location where corrective actions are needed.
 - iv. Corrective actions taken (including dates, times, and party completing maintenance activities).
 - v. Date and amount of rainfall events greater than 0.5 in/24 hours.
 - vi. Rainfall amounts must be obtained by a properly maintained rain gauge installed onsite, or by a weather station that is within one mile or by a weather reporting system.
 - vii. Requirements to observe, describe, and photograph any discharge that may be occurring during the inspection.
 - viii. All discovered nonfunctional BMPs must be repaired, replaced, or supplemented with functional BMPs within 24 hours after discovery, or as soon as field conditions allow.
- Describes procedures to amend the SWPPP and establish additional temporary ESC BMPs as necessary for site conditions.
- Describes the installation timing for all Erosion Sediment Control (ESC) Best Management Practices (BMPs).
- Describes final stabilization methods for all exposed areas.
- Methods used to minimize soil compaction and preserve topsoil must be described.
- Describes dewatering technique to prevent nuisance conditions, erosion, or inundation of wetlands.
- NA Identifies any specific chemicals and the chemical treatment systems that may be used for enhancing the sedimentation process on the site, and how compliance will be achieved with the permit requirements.
- Describes the following pollution prevention management measures:
 - a. Storage, handling, and disposal of construction products, materials, and wastes.
 - b. Fueling and maintenance of equipment or vehicles; spill prevention and response.
 - c. Vehicle and equipment washing.
 - d. No engine degreasing allowed on site.
 - e. Containment of Concrete and other washout waste.
 - f. Portable toilets are positioned so that they are secure.

Plan Sheets

- NA Temporary Sediment Basins required (10 acres draining to common location or 5 acres App. A) and design meets the following criteria:
 - a. Adequately sized – 2-year, 24-hour storm, minimum 1,800 feet/acre; or no calculative minimum 3,600ft³/acre.
 - b. Designed to prevent short circuiting.
 - c. Outlets designed to remove floating debris.

- d. Outlets designed to allow complete drawdown.
- e. Outlets designed to withdraw water from the surface
- f. Outlets have energy dissipation.
- g. Have a stabilized emergency spillway.
- h. Situated outside of surface waters and any natural buffers.

- Locations and types of all temporary and permanent Erosion Control BMPs.
 - a. Exposed soils have erosion protection/cover initiated immediately and finished within 7 days.
 - b. Wetted perimeters of ditches stabilized within 200 feet of surface water within 24 hours.
 - c. Pipe outlets have energy dissipation within 24 hours of connecting.
- Locations and types of all temporary and permanent Sediment Control BMPs.
 - a. Sediment control practices established on down gradient perimeters and upgradient of any buffer zones.
 - b. All inlets are protected.
 - c. Stockpiles have sediment control and placed in areas away from surface waters or natural buffers.
 - d. Construction site entrances minimize street tracking?
 - e. Plans minimize soil compaction and, unless infeasible to preserve topsoil.
 - f. Fifty foot natural buffers preserved or (if not feasible) provide redundant sediment controls when a surface water is located within 50 feet of the project's earth disturbances and drains to the surface water.
- Tabulated quantities of all erosion prevention and sediment control BMPs.

NA Stormwater flow directions and surface water divides for all pre- and post-construction drainage areas.

Locations of areas not to be disturbed (buffer zones).

NA Location of areas where construction will be phased to minimize duration of exposed soil areas.

Blufflines are protected from construction activities in urban (40 foot buffer) areas and rural areas (100-foot buffer).

WETLAND PERFORMANCE STANDARDS

NA Direct discharge of stormwater to wetlands and all other water bodies without water quality treatment is prohibited.

NA Any potential changes to the hydrology of the wetland (i.e. changes to the outlet elevation or contributing drainage area) must be reviewed to evaluate the impact of both the existing and proposed wetland conditions and approved by the MSCWMO.

NA Land-altering activities shall not increase the bounce in water level or duration of inundation from a 2.0-inch 24-hour storm for any downstream wetland beyond the limit specified in Table 7.2 for the individual wetland susceptibility class.

LAKE, STREAM AND WETLAND BUFFER PERFORMANCE STANDARDS

NA A buffer zone of unmowed natural vegetation is maintained or created upslope of all water bodies (wetlands, streams, lakes).

NA A 50 foot natural buffer or (if a buffer is infeasible) provide redundant sediment controls when a surface water is located within 50 feet of the project's earth disturbances and stormwater flows to the surface water.

- If adjacent to a Special or Impaired Water an undisturbed buffer zone of not less than 100 linear feet from the special water is maintained both during construction and as a permanent feature post construction. Buffer is only approximately 65'



Staff Report- January/February 2026

Administration

- Prepared March meeting materials
- Participated in Lower St. Croix Partnership meetings
- Permit review coordination with communities
- Prepared annual report and workplan
- Coordination with partners

Project Reviews

- 1081 Quixote Ave – **INFORM**
- Bayhaven Second Addition – **ACTION**
- Bridgeview Parking Lot – **ACTION**

10-Year Management Plan Update

Description: The Board of Water and Soil Resources (BWSR) requires watersheds to have a management plan and MSCWMO's current management plan expires in 2025, as such a management plan update is underway. This plan will meet BWSR's various requirements and is on track to be completed by the end of 2025.

Activities This Month: Task 1 - stakeholder engagement portion of the plan is complete. Task – 2 Implementation, Prioritization, and Actions is complete. An inventory and assessment of existing BMPs and mapping of MSCWMO's features has been completed and the report is an appendix of the plan. A detailed inspection protocol has been developed. Updates to the cost share program and performance standards have been made and reviewed by the Board. Task 3 – Plan Composition is complete. The Board of Soil and Water Resources approved the plan at its regular meeting held on December 18, 2025. MSCWMO has now adopted and will be implementing the Plan, in accordance with MN Statute 103B.231, Subd. 10.

Staff: Rebecca Oldenburg-Downing, WCD

Water Monitoring Program

Description: The MSCWMO water monitoring program includes the monitoring of flow at three sites. These sites have that equipment serves to collect data on the total volume of water flowing into Lily Lake at the Greeley Street Inlet, through Perro Creek at the Diversion Structure, as well as, the Perro Creek Diversion Structure Overflow. Water quality is also collected at the Greeley Street Inlet and the Perro Creek Diversion Structure on a monthly basis, as well as during storm events.

Additionally, the MSCWMO monitors two lakes, Lily and McKusick for several parameters from April-October. Data is collected on both lakes on a biweekly basis and includes: water level, clarity, pH, temperature and dissolved oxygen profiles, an aesthetics and user profile, and field

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conditions. Additionally, water quality samples are collected from the surface of the lakes and analyzed for total phosphorus, total Kjeldahl nitrogen, and chlorophyll.

Activities This Month: Equipment has been removed from the Perro Diversion and Perro Diversion Overflow sites. Six base grab and seven storm samples were collected at Perro Creek Diversion Structure. Lake monitoring has finished for the season with fourteen samples collected on Lily and McKusick Lakes, respectively. Lake elevation gages readings were taken on Lily Lake, McKusick Lake, and Brick Pond. A volunteer collected elevations on Brick Pond. Gages have been removed for the season. Equipment cleaning, maintenance and testing is complete. Data analysis is complete and the draft 2025 Summary is ready for Board review.

Staff: Rebecca Oldenburg-Downing, WCD

Erosion and Sediment Control Inspections

Description: The MSCWMO has contracted with the WCD to conduct erosion and sediment control inspections for construction projects that have been reviewed and recommended for permit approval by partner communities. The WCD also maintains an ArcGIS Online based database for project plan review tracking, erosion control inspection, and BMP implementation and maintenance activities.

Activities This Month: A review of 2025 inspection data was conducted and a summary was prepared for the MSCWMO Annual Report. A spring reminder erosion prevention and sediment control email was distributed to all sites expected to be active, and notification was given that WCD would be resuming inspection of sites in the coming weeks.

Staff: Aaron DeRusha, WCD

BMP Maintenance

Description: The MSCWMO has a maintenance obligation for its Capital Improvement Projects and projects funded by Clean Water Fund grants. The MSCWMO partners with the Washington Conservation District to fulfill this maintenance requirement.

Activities this month: Planning for 2026 underway.

Staff: Brett Stolpestad, Cameron Blake, WCD

Meetings:

- HOSC Review, Baytown– January 14th
- LSC Steering Team – January 14th
- WCD Project Review Meeting – February 10th
- CWF Grant App planning – February 17th
- 1720 Riviera Pre-app – February 23rd
- EMWREP Steering Team – February 24th
- 1081 Quixote Meeting – March 5th
- LSC Steering Team – March 11th

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