



MINNEHAHA CREEK
WATERSHED DISTRICT
QUALITY OF WATER, QUALITY OF LIFE

Meeting: Board of Managers
Meeting date: 4/11/2024
Agenda Item #: 7.2
Board Consent Item

Title: Authorization to Submit Annual Activity Report to the Board of Water and Soil Resources and Department of Natural Resources

Resolution number: 24-020

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Reviewed by: Name/Title: Becky Christopher, Policy Planning Manager

Summary:

The attached report has been prepared to satisfy the District's annual reporting requirement to the Board of Water and Soil Resources (BWSR) and Department of Natural Resources (DNR).

Minnesota Statutes Chapter 103D.351 requires watershed districts to file an annual report with BWSR and the DNR, and for metro watershed districts, the report must meet the requirements described in Minnesota Rules 8410.0150. The annual activity report includes information on Board members and staff, the previous and current years' work plans, biennial progress toward goals, water quality trends, communication activities, solicitation of consultant services, local plan adoption and implementation, and permits and violations. The annual activity report is due to BWSR and the DNR within 120 days of the end of each calendar year.

The District is also required to submit a copy of its annual audit report to BWSR, the DNR, and the state auditor's office within 180 days of the end of the District's fiscal year. The District's audit is submitted directly to these agencies by the District's auditor.



RESOLUTION

Resolution number: 24-020

Title: **Authorization to Submit Annual Report to the Board of Water and Soil Resources and Department of Natural Resources**

WHEREAS, Minnesota Statutes 103D.351 requires that an annual report be submitted to the Board of Water and Soil Resources (BWSR) and Department of Natural Resources (DNR) regarding the financial conditions of the watershed district, the status of all projects, the business transacted by the watershed district, other matters affecting the interests of the watershed district, and a discussion of the managers' plans for the succeeding year; and

WHEREAS, Minnesota Rule 8410.0150 further defines the reporting requirements and deadlines for metropolitan watershed districts, including the submittal of an annual activity report within 120 days of the end of the calendar year and an annual audit report within 180 days of the end of the watershed district's fiscal year; and

WHEREAS, Minnehaha Creek Watershed District (District) staff has prepared a 2023 Annual Activity Report meeting these requirements; and

WHEREAS, District's audit report will be submitted directly to these agencies by the District's auditor;

NOW, THEREFORE, BE IT RESOLVED, that the District's Board of Managers accepts the 2023 Annual Activity Report and authorizes its release to BWSR and DNR.

Resolution Number 24-020 was moved by Manager _____, seconded by Manager _____. Motion to adopt the resolution ___ ayes, ___ nays, ___ abstentions. Date: April 11, 2024

Secretary Date: _____



MINNEHAHA CREEK

QUALITY OF WATER



WATERSHED DISTRICT

QUALITY OF LIFE

MINNEHAHA CREEK WATERSHED DISTRICT 2023 ANNUAL ACTIVITY REPORT

TABLE OF CONTENTS

Introduction	1
Board Members	1
Staff Contact Information	1
Assessment of 2023 Work Plans	2
2024 Work Plans	7
Evaluation of Progress on Goals and Implementation Actions	8
Trends in Monitoring Data	12
Annual Communications	17
Solicitation of Services	19
Status of Local Plans	20
Status of Locally Adopted Ordinances	20
Permits, Variances, and Violations	21
Appendix A - MCWD 2024 Budget and Work Plan	22

INTRODUCTION

This report has been prepared to satisfy the Minnehaha Creek Watershed District's (MCWD or District) annual reporting requirements set forth in Minnesota Statutes Chapter 103D.351, which requires watershed districts to file an annual report with the Board of Water and Soil Resources and the Department of Natural Resources. Metropolitan watershed districts are required to follow reporting requirements described in MR 8410.0150.

BOARD MEMBERS

Below is a list of the District's current Board of Managers, including the designated officers and the county that appointed each member.

Table 1 Current Board of Managers		
Manager	County	Contact Information
Sherry Davis White, President	Hennepin	swhite@minnehahacreek.org
Bill Olson, Vice President	Carver	bolson@minnehahacreek.org
Jessica Loftus, Treasurer	Hennepin	jloftus@minnehahacreek.org
Eugene Maxwell, Secretary	Hennepin	emaxwell@minnehahacreek.org
Richard Miller	Hennepin	rmiller@minnehahacreek.org
Arun Hejmadi	Hennepin	ahejmadi@minnehahacreek.org
Steve Sando	Hennepin	ssando@minnehahacreek.org

STAFF CONTACT INFORMATION

The District currently employs 19 staff. The names, job titles, and contact information for all staff can be found on the District website at <https://www.minnehahacreek.org/about/staff>. The contact information for the District Administrator is provided below.

James Wisker, District Administrator
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ASSESSMENT OF 2023 WORK PLANS

In 2023, the majority of activities identified in the work plan were completed or work was initiated and continues into 2024.

Due to the complexity of some of these efforts, capital improvements can span multiple years to plan and implement. Expenditures for each of the District's programs and projects are included in the audit report (provided separately by the District's auditor). The ongoing development and use of MCWD's Multi-Year CIP Program (MYCIP), a key step in MCWD's continuous improvement model, creates close coordination with its public and private partners, aligning plans and resources prior to advancing implementation.

The District closed out four different grant funding streams in 2023. The 2019 Watershed Based Funding grant was closed after allocating funding to the Arden Park, Wassermann West Pond, and 325 Blake Road projects. The District also closed out Clean Water Fund grants for the 325 Blake Road Project and the Wassermann Lake Internal Load Management Project, respectively. Lastly, the Six Mile Creek-Halsted Bay Carp Management Project successfully achieved its programmatic objectives, and MCWD concluded its Lessard-Sams Outdoor Heritage Council (LSOHC) grant in 2023.

SIX MILES CREEK-HALSTED BAY SUBWATERSHED

In the Six Mile Creek-Halsted Bay Subwatershed, the below work was conducted in 2023:

- ▶ The [Six Mile Marsh Prairie Restoration Trail Project](#) completed final construction and installed interpretive signage and visitor experiences at the Six Mile Marsh Prairie.



- ▶ The feasibility study for the [East Auburn Wetland Restoration Project](#) was completed.
- ▶ The [Wassermann Lake Preserve](#) continued the project warranty phase, including ongoing site management and vegetation improvements.
- ▶ Small area planning efforts in the [Turbid-Lundsten Corridor](#) were initiated, including exploring partnership opportunities with the City of Victoria.
- ▶ The [Wassermann Lake Internal Load Management Project's](#) monitoring of the second alum treatment application on Wassermann Lake is ongoing.
- ▶ The [Six Mile Creek Habitat Restoration](#) Program's Carp Management Project transitioned into a maintenance phase focused on monitoring the efficacy of management efforts and sustaining minimal carp populations.

In addition, MCWD continues to evaluate the next phase of capital project work in two project areas, the Mud Lake watershed load reduction area and Six Mile Marsh-Halsted Bay on Lake Minnetonka.

MINNEHAHA CREEK SUBWATERSHED PROJECTS

In the Minnehaha Creek Subwatershed, the below work continued in 2023:

- ▶ The [325 Blake Road Restoration and Redevelopment](#) (325 Blake Road) Project reached 100% design, plans and specifications, and is ready for construction, in coordination with MCWD's development partner.
- ▶ The [Greenway to Cedar Trail Connection and Streambank Restoration](#) has completed feasibility and is being coordinated with the City of St. Louis Park and Met Council's SWLRT to advance to design next year.
- ▶ The [Cottageville Park Phase II Project](#) reached 100% design, plans and specifications, and is ready for construction, in coordination with the City of Hopkins.



The Cottageville Park Phase I Project was completed in 2015.

- ▶ The [Arden Park Restoration Project](#) closed the warranty and vegetation establishment phase. The project's regional stormwater system is online, accepting stormwater flows from approximately 80 acres, and the partners continue vegetation management.

In addition, MCWD continues to work closely with the City of Minneapolis and the Minneapolis Park and Recreation Board to develop an implementation plan for the Minneapolis Parkway Master Plan. The partners are exploring opportunities to align capital improvement programs to kickstart project implementation. A three-agency cooperative agreement has been developed, creating the framework for advancing phase one project feasibility (three project opportunities on the Minnehaha Parkway) while exploring the next wave of capital project investment through the development of a long-range plan, with aligned goals and capital investments.



WATERSHED-WIDE PROGRAMMING

For watershed-wide work, the below work advanced in 2023:

- ▶ MCWD completed its Technical Advisory Committee (TAC) meeting process to support its Land & Water Partnership Initiative, focused on vetting the new Land & Water Partnership program, which will provide support for partner-led projects that improve water resources; refine the Permitting program and rules to improve customer service, reduce duplication, and promote early coordination; and build sustainable connections for ongoing collaboration.



The Land & Water Partnership Initiative TAC included representatives from cities, counties, soil and water conservation districts, and park agencies in the watershed.

- ▶ In the Long Lake Creek Subwatershed, the below work continued in 2023:
 - The District continues its work with the cities of Orono, Long Lake, and Medina and the Long Lake Waters Association around the common goal of improving water quality within the Long Lake Creek Subwatershed as outlined in the draft [Long Lake Creek Roadmap](#), which was released in January 2023.
 - MCWD completed a feasibility study for the [County Road 6 Pond Retrofit Project](#) in the City of Orono, a priority regional stormwater pond retrofit opportunity identified in the Long Lake Creek Roadmap.
 - The District is working in partnership to explore feasibility of other public and private projects identified in the roadmap, including a private wetland bank in the City of Medina and a new regional stormwater facility in the City of Long Lake.



A retrofit of the County Road 6 Pond will improve water quality in downstream Long Lake.

- ▶ In 2023, MCWD finalized its development of the Land & Water Partnership program, which launched in January 2024. Prior to officially launching the program, MCWD provided technical and financial support through a pilot program in 2023, which included:
 - The City of Plymouth identified a pond retrofit project to enhance water quality for Gleason Lake ([Maple Creek Pond Improvement Project](#)). MCWD provided \$100,000 to support the water quality components of the project. The project completed construction in 2023.
 - The City of Deephaven and MCWD worked in partnership in 2023 to take a system-scale approach to identify significant, regional stormwater management opportunities.
- ▶ MCWD's [Climate Action Framework](#) guides its climate action work leading up to the 2027 Watershed Management Plan.
 - As part of this effort, MCWD convened public partners in September 2023 to provide a climate briefing on its Climate Action Framework, including an update on the development of a watershed-wide 2-dimensional model to predict and understand the watershed system in unprecedented detail.



MCWD staff engaged with public partners to understand climate planning needs across the watershed.

- During 2023, MCWD initiated a watershed-wide model advisory group to inform its climate model selection. In December, MCWD released requests for proposals for its watershed-wide 2-dimensional model build.
- MCWD continued to build out its network of remote sensors, known as RESNET, which provides real-time data on water level, flow, and pollutant loading throughout the watershed.
- ▶ MCWD launched a new website to quickly and intuitively connect users to the information they want, while also promoting MCWD's partnership approach.

2024 WORK PLANS

For 2024, the District prepared one comprehensive work plan encompassing activities in its two focal subwatersheds, Six Mile Creek-Halsted Bay and Minnehaha Creek, as well as its watershed-wide programming to promote land and water partnerships. This document includes a summary of the District's 2024 budget and can be found on MCWD's website at the link provided below. It is also attached as Appendix A.



2024 Budget and Work Plan: <https://minnehahacreek.org/wp-content/uploads/2024/02/2024-Budget-Workplan-Publication.pdf>

EVALUATION OF PROGRESS ON GOALS AND IMPLEMENTATION ACTIONS

In January 2018, the District adopted its 2017-2027 [Watershed Management Plan \(WMP\)](#). Section 3.7 of the plan describes the District's framework for setting goals and evaluating progress through a sequential process that begins with strategic goals and long-range targets and leads to subwatershed and then project-specific targets, performance measurement, and evaluation.

Below is a summary of the available metrics for District implementation to-date under the 2017-2027 WMP. The District is in the process of implementing an information technology update that will improve MCWD's ability to comprehensively track and report on progress toward its goals across all of its programs and projects.

SIX MILES CREEK-HALSTED BAY SUBWATERSHED PROJECTS

- ▶ **East Auburn Stormwater Enhancement Project (2019)**
 - The project included a load reduction of 28 lbs/yr of TP
- ▶ **Wassermann West External Load Reduction (pond alum treatment) (2021)**
 - First year monitoring indicates a reduction of 75 lbs/yr of TP
 - Significantly exceeds the pre-project estimated load reduction of 39 lbs/yr
- ▶ **Wassermann Lake Preserve (2021)**
 - 370 lineal feet of stream channel restoration
 - 1.56 acres of prairie, 1.62 acres of oak savannah, and 2.14 acres of wetland fringe site restoration
 - 5,378 cubic feet of stormwater treatment (1,530 more than required by regulation)



In addition to the water quality and habitat improvements, the Wassermann Lake Preserve provides new recreation space for the community.

► **Wassermann Lake Alum Treatment (2022)**

- Completed two alum application treatments (2021 and 2022)
- Estimated annual phosphorus load reduction of 374 lbs

► **Six Mile Creek-Halsted Bay Carp Management Project (ongoing)**

- 4 carp barriers constructed
- 3 utility installations completed for aeration of shallow lake systems
- Through the carp management project, MCWD successfully reduced carp biomass to below or near the 100 kg/ha threshold across 14 connected lakes, with Mud, Parley, and Wassermann Lakes showing the most significant improvements (see Table 2)
 - Carp populations reduced, with an estimated 284,000 lbs removed

**Table 2
Six Mile Creek-Halsted Bay Carp Population Change (2016-2023)**

Lake	Est. Number of Individuals	
	2016	2023
Mud	5,148	1,553
Parley	16,167	9,755
West Auburn	7,201	736
East Auburn	6,121	1,592
Turbid	2,273	NA
Wassermann	10,031	350
Piersons	3,580	2,728
Steiger	2,886	1,163
Zumbra	5,953	3,640
Total	59,360	21,517

MINNEHAHA CREEK SUBWATERSHED PROJECTS

▶ 325 Blake Road Demolition (2018)

- Removed an industrial facility containing mercury and asbestos and recycled/salvaged over 65% of the materials from the project site

▶ Arden Park Restoration Project (2020)

- The project benefits include:
 - 88 acres of stormwater management
 - 33 lbs of annual total phosphorus load reduction
 - 18,000 lbs of annual total suspended solids reduction
 - 1.2 acre-feet storage (volume reduction)
 - 2,154 lineal feet streambank restoration
 - 17 acres of upland and 6.7 acres of wetland site restoration
 - 7,000 feet of newly accessible public trails



▶ Minnehaha Creek FEMA Flood Damage Repairs (2020)

- The project included 500 lineal feet of streambank repair

▶ 325 Blake Road Project (ongoing)

- Developed 325 Blake Road Project design and preliminary benefits of its stormwater system. The project is expected to achieve the following benefits:
 - Annual reduction of 42,924 lbs of TSS, or 99.9% of the inflow volume
 - Annual reduction of 175.3 lbs of TP, or 74.1% of the inflow volume
 - Exploring opportunities to install a filter and circulation system to double the TP removal
 - 1,200 feet of newly accessible public trails
 - 1,000 feet of riparian restoration
 - 12 acres of integrated mixed-used development



WATERSHED-WIDE PROGRAMMING

► Stormwater Pond Maintenance (2019)

- Bde Maka Ska Cell 1 (2019)
 - Identified 42% wet volume loss
 - Removed 2,000 cu/yds unregulated fill
- Pamela Park (2019)
 - Identified 59% wet volume loss
 - Removed 1,800 cu/yds contaminated sediment

► Land Conservation (2019)

- Purchased site for Halsted Bay Watershed Load Management (alum dosing facility)
 - 5.15 acres, including 1.25 acres upland and 3.9 acres wetland
 - When constructed, the facility will treat an estimated 1,400 lbs of phosphorus

► Project Partnerships (ongoing)

- Long Lake Creek Partnership (ongoing)
 - The Cities of Long Lake, Medina, and Orono; Long Lake Waters Association; and MCWD have agreed to work together toward a common goal of improving the water quality of five impaired lakes within the Long Lake Creek Subwatershed
 - MCWD led a subwatershed assessment and to-date has identified and evaluated 54 projects, of which 37 are recommended for advancement based on their high cost-effectiveness and feasibility to implement
- Maple Creek Pond Improvement Project (2021-2023)
 - Partnership with the City of Plymouth to reduce nutrient loading to Gleason Lake by 19 lbs/yr

TRENDS IN MONITORING DATA

The Research and Monitoring program evaluates trends for long-term (“anchor”) lake and stream monitoring stations throughout the District. Data for these anchor lakes is largely sourced from and collected by MCWD, the Minneapolis Park and Recreation Board, and Three Rivers Park District. In total, 22 lake stations were assessed for trends in surface water quality for 2014-2023. Sampling events outside the growing season of June through September were not included in the analysis, since the Minnesota Pollution Control Agency’s water quality standards apply to the growing season average. Trends were computed using the Mann-Kendall test on water clarity (secchi disk), algal abundance (chlorophyll-a), and total phosphorus (TP) in the lake surface water to determine if an increasing or decreasing trend exists for each lake.

For streams, the Mann-Kendall test was used to compute stream trends on flow-corrected concentrations for both TP and total suspended solids (TSS). To minimize the impact of sampling duration changes, sampling events outside of April through October were not included. A locally weighted scatterplot smoothing (LOWESS) residual was calculated between the parameter of interest (TSS or TP concentrations) and flow. MCWD staff used the Mann-Kendall test to determine if a significant trend existed for TSS or TP at each of the 11 anchor monitoring sites.

All statistical analyses were computed using R-studio statistical packages. An alpha of 0.05 was used to determine if the p-value was significant. Lakes trends are displayed in Table 3 and stream trends are displayed Table 4.

SIX MILE CREEK SUBWATERSHED

Lake water quality within the Six Mile Creek-Halsted Bay Subwatershed is not showing significant improvements, which may seem counterintuitive, since stream water quality is improving at the subwatershed outlet.

One of the lakes where significant improvements would have been expected is Wassermann Lake, due to the implementation of watershed phosphorus load reductions, carp management, and internal load reductions. Visualizing the data displays that there appears to be a general downward trend in phosphorus concentrations (Figure 1). Furthermore, 2023 represents the first year since MCWD began monitoring Wassermann Lake that total phosphorus concentrations met state water quality standards (Figure 1).

Six Mile Creek demonstrated significant improvements in stream total phosphorus concentrations at the monitoring station located near the outlet of the subwatershed (Table 4). These data suggest that recently implemented watershed improvement projects have improved stream water quality conditions.

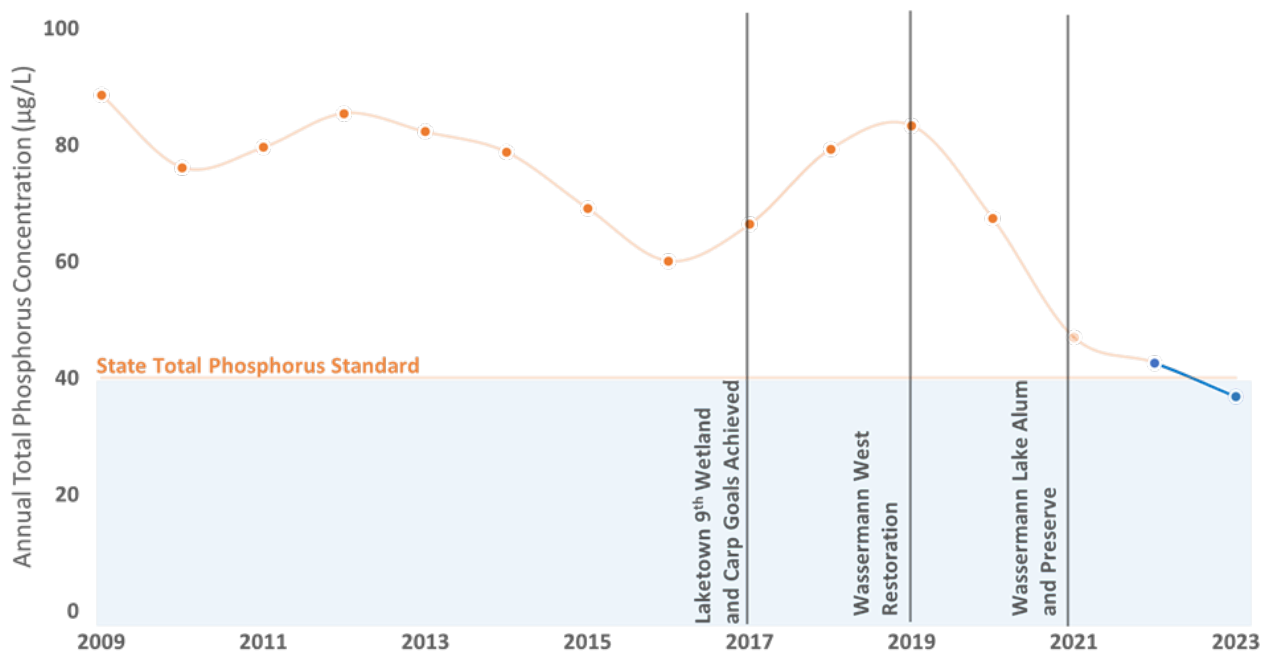


Figure 1. Wassermann Lake's average annual total phosphorus concentration with projects implemented over the past 10 years.

MINNEHAHA CREEK SUBWATERSHED

No stream monitoring locations or lakes within the Minnehaha Creek Subwatershed showed any statistical trend for phosphorus. However, degrading trends were observed for lake response variables (secchi and/or chlorophyll-a) within Lake Nokomis and Lake Hiawatha (Table 3).

The recent decline in water clarity and increased algae production may be correlated to the back-to-back drought conditions the District has experienced during 2021, 2022, and 2023. The inverse relationship between water quality and flow in the creek is counterintuitive, since most lakes experience poor water quality in years with high stormwater runoff. There is a delicate balance between watershed loading and lake residence time that can greatly impact how a lake cycles nutrients.

For example, high phosphorus concentrations have been observed in Lake Hiawatha during 2012, 2021, 2022, and 2023 (drought years) and low phosphorus is observed in high flow years. Furthermore, there has not been a significant increase in stream total phosphorus concentrations in Minnehaha Creek (Table 4), suggesting that watershed loading is not the primary contributor to elevated phosphorus and chlorophyll-a concentrations in Lake Hiawatha. Continued refinement of Lake Hiawatha's nutrient budget under low and high flow conditions will help MCWD and partner agencies identify the balance of watershed and internal load reductions to continue progress toward meeting state water quality standards in Lake Hiawatha.

OTHER SUBWATERSHEDS

Four bays in Lake Minnetonka showed signs of total phosphorus or water clarity improvement, which may be attributed to lower watershed loading during drought years (2020-2024). Conversely, Grays Bay is the only Lake Minnetonka bay with a degrading water quality metric (chlorophyll-a) (Table 3). In addition, both lakes in the Long Lake Creek Subwatershed (Long and Tanager) have improving total phosphorus trends.

Subwatershed	Lake	Total Phosphorus	Chlorophyll-a	Secchi Disk
Long Lake	Long	Improving	No Trend	No Trend
	Tanager	Improving	No Trend	No Trend
Six Mile Creek	Parley	No Trend	No Trend	No Trend
	Wassermann	No Trend	No Trend	No Trend
	Steiger	No Trend	Degrading	Degrading
	West Auburn	No Trend	No Trend	No Trend
	Zumbra	No Trend	No Trend	No Trend
Minnehaha Creek	Bde Maka Ska	No Trend	No Trend	No Trend
	Cedar	No Trend	No Trend	No Trend
	Lake of the Isles	No Trend	No Trend	No Trend
	Powderhorn	No Trend	No Trend	No Trend
	Nokomis	No Trend	Degrading	No Trend
	Harriet	No Trend	No Trend	No Trend
	Hiawatha	No Trend	Degrading	Degrading
Lake Minnetonka	Carman Bay	No Trend	No Trend	No Trend
	Crystal Bay	Improving	No Trend	No Trend
	Forest	Improving	No Trend	No Trend
	Grays Bay	No Trend	Degrading	No Trend
	Halsted's Bay	No Trend	No Trend	No Trend
	Jennings Bay	No Trend	No Trend	No Trend
	Lower Lake South	No Trend	No Trend	Improving
	Stubbs Bay	Improving	No Trend	No Trend

**Table 4
Significant Trends for Streams within Minnehaha Creek Watershed District**

Subwatershed	Stream Station	Total Phosphorus	Total Suspended Solids
Dutch Lake	Dutch Lake: Lake Outlet	Improving	No Trend
Langdon Lake	Langdon Lake Outlet	Degrading	Degrading
Minnehaha Creek	Minnehaha Creek I-494 Ramp	No Trend	No Trend
	Minnehaha Creek W. 34 St.	No Trend	No Trend
	Minnehaha Creek Excelsior Blvd	No Trend	No Trend
	Minnehaha Creek: 21st/Minnehaha Pkwy	No Trend	No Trend
	Minnehaha Creek: Hiawatha Ave	No Trend	No Trend
Painter Creek	Painters Creek: W. Branch Rd	No Trend	No Trend
Six Mile Creek	Six Mile Creek: Auburn Lk East Inlet	No Trend	No Trend
	Six Mile Creek: Lundsten Lk - North Outlet	No Trend	No Trend
	Six Mile Creek: Mud Lake Outlet	Improving	No Trend

ANNUAL COMMUNICATIONS

MCWD’s outreach is guided by its 2017 Watershed Management Plan. The goal of MCWD communication efforts is to increase integration of land use and water planning by raising awareness within the land use community about the benefits of partnering with MCWD. This includes an annual budget publication (Appendix A), customized communications with policymakers, media relations, print and digital publications, and MCWD’s website. MCWD also issues regular communications to its partners, such as water level e-mail updates, in which the District provides timely information and resources on flood risk, recreation conditions, and operation of the Gray’s Bay Dam.

In 2023, MCWD conducted several communications efforts to raise awareness of the benefits of increased integration between land use and water planning as well as highlight some of the District’s key projects and initiatives:


- ▶ MCWD completed the redesign of [its new website](#), which connects stakeholders to the information they value and broadly shares MCWD’s Balanced Urban Ecology vision for projects, policy, and partnerships.
 - The new website includes several interactive dashboards for visitors to explore water resource data. The site is strategically organized to provide user-friendly pathways to key information about MCWD’s work.
 - The website also houses information and resources for residents to learn more about best practices they can take at home to help protect and improve water resources.

Featured Projects

We build projects that measurably improve water quality, reduce flooding, benefit people and communities, and create new vibrant places across the watershed. [We support outreach to implementing projects](#) that bridge water and community development.

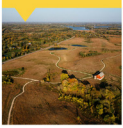
325 Blake Road Restoration

Hopkins
Minnehaha Creek Subwatershed




Six Mile Marsh Prairie Restoration

Minnetrista
Six Mile Creek-Hatted Bay Subwatershed



Maple Creek Pond Improvement Project

Plymouth
Gleason Lake Subwatershed

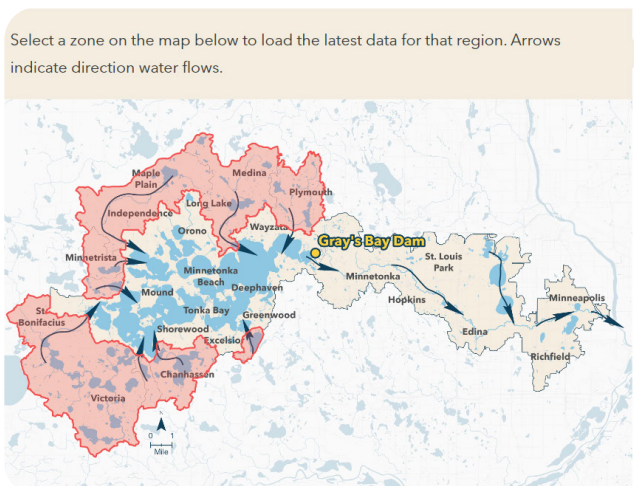


Water Levels at a Glance

<p>LAKE MINNETONKA WATER LEVEL</p> <p>928.8ft</p> <p>STATUS</p> <p>NORMAL</p>	<p>GRAY'S BAY DAM DISCHARGE</p> <p>0.0cfs</p> <p>STATUS</p> <p>ACTIVE</p>	<p>MINNEHAHA CREEK @ HWAYATA AVE</p> <p>17.8cfs</p> <p>STATUS</p> <p>LOW</p>
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View more water level and creek flow data on our water levels page. Explore current and historic dam discharge rates on the Gray's Bay Dam Operations page.

WATER LEVELS
DAM OPERATIONS



Upper Watershed

Date Range:

- LAST 1 DAY

LAST 5 DAYS

LAST 7 DAYS

The upper watershed received **0.06 inches** of rain over the past **7 days**.

Approximately **13.06 acre-feet** of water moved through the nine Upper Watershed tributaries into Lake Minnetonka

- ▶ MCWD convened a Technical Advisory Committee (TAC) from October 2022 – June 2023, with staff from cities, counties, and park agencies within the watershed. MCWD also produced a [publication](#), which was mailed to staff and policymakers at municipalities and public agencies across the watershed. The publication outlined the major outcomes of this stakeholder engagement process and the next steps for each component of the Land & Water Partnership Initiative.
- ▶ In September 2023, MCWD hosted a briefing to share its recently adopted [Climate Action Framework \(CAF\)](#) with partners across the watershed. Staff from municipalities and other public agencies within the watershed were invited to share their perspectives on climate action planning and learn more about the action steps outlined in MCWD's CAF.
- ▶ MCWD coordinated with the Star Tribune on [a June 2023 story](#) highlighting the District's recent work along the Minnehaha Creek Greenway between Hopkins and St. Louis Park. This story emphasized the water resource benefits of recent partnership efforts as well as the impacts of an integrated planning approach.
- ▶ As MCWD wrapped up its habitat restoration project in the Six Mile Creek-Halsted Bay Subwatershed, it produced a [publication](#) that summarized the project's approach and early results. This publication was sent out to representatives at partner agencies within that region and has been used as a communications tool to explain how and where carp management strategies can be most effective to improve water resources.
- ▶ On June 20, 2023, MCWD staff welcomed the Lessard-Sams Outdoor Heritage Council (LSOHC) to a key project site in the Six Mile Creek-Halsted Bay Subwatershed.
 - The Wassermann Lake Preserve in Victoria was one stop along the LSOHC summer tour and allowed MCWD project staff to explain the District's restoration strategy for water resources in the region.

SOLICITATION OF SERVICES

In accordance with MN Statutes 103B.227, the District solicits proposals for legal, professional, or technical consultant services at least every two years. Below are the solicited proposals for 2022-2025, including upcoming associated RFPs:

- ▶ *Accounting Services* – Current contract solicited in September 2023
 - Contract expires December 31, 2025
 - RFPs will be requested September 2025
- ▶ *Audit Services* – Current contract solicited in June 2022
 - Contract expires April 30, 2024
 - RFPs will be requested June 2024
- ▶ *Engineering Services* – Current contract solicited in October 2023
 - Contract expires December 31, 2025
 - RFPs will be requested September 2025
- ▶ *Government Relations Services* – Current contract solicited in October 2023
 - Contract expires December 31, 2025
 - RFPs will be requested September 2025
- ▶ *IT Managed Services* – Current contract solicited in January 2023
 - Contract expires February 28, 2025
 - RFPs will be requested January 2025
- ▶ *Legal Services* – Current contract solicited in June 2022
 - Contract expires August 31, 2024
 - RFPs will be requested June 2024

STATUS OF LOCAL PLANS

MN Statutes § 103B.235 and MN Rules § 8410.0160 grant watershed districts the authority to review and approve local water management plans (LWMPs). Under this framework, watershed districts can assign responsibilities to local government units (LGUs) for carrying out implementation actions defined in the watershed plan. The LWMP is a required element of the LGU comprehensive land use management plan, which LGUs were required to update by the end of 2018.

The primary focus of the LWMP requirements set forth in the District's 2017 Watershed Management Plan is on improving the integration of land use and water planning. To effectively integrate the goals of MCWD and its LGUs in a way that maximizes community benefits and effectively leverages public funds, the District has invited a partnership framework with its communities.

In addition to the legally required elements of LWMPs, as defined in state statute and rules, the Watershed Management Plan requires communities to develop a coordination plan that describes how the LGU and MCWD will share information and work together to integrate land use and water planning. To date, 27 of the District's 29 communities have received approval of their LWMP. The two remaining communities are Laketown and Watertown Townships, which rely on Carver County as the land use planning authority.

STATUS OF LOCALLY ADOPTED ORDINANCES

The District's 2017 Watershed Management Plan did not establish any requirements for local ordinances.

PERMITS, VARIANCES, AND VIOLATIONS

In 2023, MCWD reviewed and processed 559 permit applications. Zero permits were denied, and there were 5 variances or exceptions approved. A total of 278 inspections were completed in 2023.

Noncompliant sites were resolved through MCWD inspection reports to permittees and on-site meetings to discuss corrections and solutions to site-specific issues. MCWD issued 1 notice of probable violation in 2023, which was resolved through voluntary compliance; no Wetland Conservation Act violations occurred. No formal enforcement actions were issued by the MCWD Board of Managers.

APPENDIX A - MCWD 2024 BUDGET AND WORK PLAN



Wassermann Lake Preserve on Wassermann Lake



2024 MCWD BUDGET & WORKPLAN

Pursuing a balanced urban ecology through capital projects and policy

2024 BUDGET & WORKPLAN

2024 marks six years since the adoption of the Minnehaha Creek Watershed District (MCWD)'s 2017 Watershed Management Plan, and with help from our partners, we can clearly see progress. We understand that delivering high-impact projects that measurably improve our treasured waters, while supporting the broader goals of building thriving communities, takes years. For this reason, each budget cycle represents not just an opportunity to look at the fiscal year ahead, but to strategically prepare to take on new, impactful work in the years to come.

This workplan provides an overview of our 2024 annual budget and summarizes progress occurring across the watershed in collaboration with our partners.

CONTENTS

- 2 | 2024 Budget Breakdown
- 3 | Land & Water Partnerships
- 4 | Six Mile Creek – Halsted Bay Subwatershed
- 5 | Six Mile Creek – Halsted Bay Subwatershed 2024 Activities
- 6 | Minnehaha Creek Subwatershed
- 7 | Minnehaha Creek Subwatershed 2024 Activities
- 8 | A Data Driven Strategy for Resilience
- 9 | Watershed-Wide Services

OUR APPROACH: IN PURSUIT OF A BALANCED URBAN ECOLOGY

We believe that clean water and a healthy natural environment are essential to creating and sustaining vibrant, thriving communities. The beauty, green space, and recreational opportunities found in the Minnehaha Creek watershed create a sense of place that provides a local identity, adds economic value, and increases well-being.

We put this belief into action by partnering with our communities to integrate the natural and built environments across the watershed. In pursuing these partnerships, we focus in areas of high need to achieve significant, measurable improvements, while remaining responsive to needs and opportunities watershed wide.



Minnehaha Creek Preserve Boardwalk in St. Louis Park

2024 BUDGET BREAKDOWN

FISCAL RESPONSIBILITY

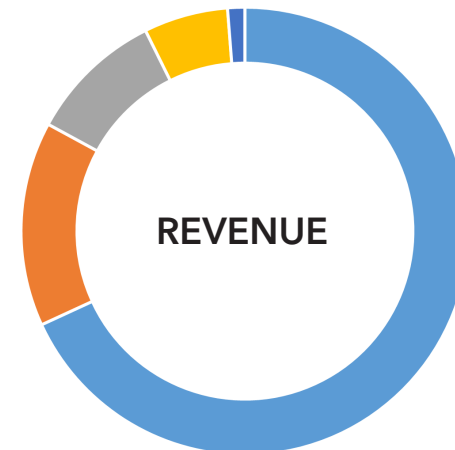
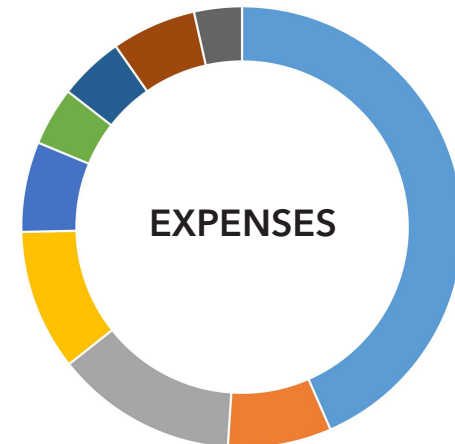
Our work is supported by an annual tax levy, funds levied in past years for multi-year capital projects (projects fund balance), funds reallocated from programs delivered under-budget (programs fund balance), grants and partner funds, interest, and reimbursement of permit fees.

EXPENSES	2023	2024
Capital Projects	\$2,886,022	\$6,293,411
Capital Finance	\$4,212,718	\$1,099,868
Operations & Support Services	\$1,899,204	\$1,927,575
Research & Monitoring	\$1,454,612	\$1,493,634
Project Planning	\$902,544	\$955,636
Policy Planning	\$602,395	\$620,151
Project & Land Maintenance	\$2,594,155	\$689,926
Permitting	\$852,789	\$898,299
Outreach	\$527,826	\$507,757
TOTAL	\$15,932,805*	\$14,486,255

REVENUE	2023	2024
Levy	\$9,869,513	\$9,869,513
Projects Fund Balance	\$2,299,090	\$2,142,408
Programs Fund Balance	\$2,689,202	\$1,213,144
Grants & Partner Funds	\$1,005,000	\$1,081,190
Interest & Fees	\$70,000	\$180,000
TOTAL	\$15,932,805*	\$14,486,255

REVENUE SOURCES OVER TIME

In 2024, MCWD is maintaining a flat levy. MCWD has increased its levy by only 2% over the past 5 years. We are **leveraging over \$1 million in outside funding in 2024, which will support 7.5% of the budgeted expenditures**, consistent with MCWD's prior five year average.



*The 2023 Budget was amended in August 2023, to reflect a shift in timing of capital expenditures.

LAND & WATER PARTNERSHIPS



Long Lake in the Long Lake Creek subwatershed.

COLLABORATION AT A SUBWATERSHED SCALE

Since 2018, MCWD has worked closely with the cities of Medina, Long Lake, and Orono, and the Long Lake Waters Association to identify opportunities to improve water quality in the Long Lake Creek Subwatershed. In 2024, three project opportunities are being advanced by the partnership: an MCWD-led retrofit of a regional stormwater pond in Orono, planning for regional stormwater management in Long Lake with state grant funds, and a developer-led wetland restoration in Medina.

2024 BUDGET: \$850,940

This funding supports partner-led capital projects through the Land & Water Partnership program as well as related planning and outreach efforts.

SHARED BENEFITS

We've learned that we can best achieve our mission of protecting natural resources by working with land use partners. As a regional agency, we've developed new ways to support our partners' goals and projects by applying our expertise in concept design, planning, permitting, and project management.

CRAFTING SYSTEMS TOGETHER

Throughout 2022 and 2023, we conducted a robust engagement process through our Land & Water Partnership Initiative to vet improvements to the permitting program, shape MCWD's new Land & Water Partnership (LWP) program and identify ways to strengthen coordination. MCWD's new permitting rules and LWP program, designed with input from a technical advisory committee of representatives from our communities, are set to launch in early 2024.

A PATHWAY FOR PARTNERSHIP

The LWP program creates opportunity for partners to connect with us early in project planning and budgeting processes. We are ready to work creatively to provide technical and financial assistance on public and private projects by integrating qualifying projects into our Capital Improvement Plan.

By engaging early and collaboratively, MCWD also leverages the permitting process as an opportunity to provide service, grow relationships, and find mutual value in partnership. Improvements to MCWD's permitting program create a process that is simple, streamlined, and well-integrated with other agencies.

SIX MILE CREEK - HALSTED BAY SUBWATERSHED

2024 BUDGET: \$700,737

This funding supports the implementation of capital projects in this subwatershed.

The Six Mile Creek - Halsted Bay Subwatershed (SMCHB) is a water resource rich system that forms the headwaters of Lake Minnetonka and Minnehaha Creek. Five lakes within SMCHB are impaired by excess nutrients and Halsted Bay is the most degraded in Lake Minnetonka.

PARTNERSHIPS

MCWD worked with communities to develop the SMCHB Plan, a collaborative vision to improve water quality and natural resources while integrating local goals around infrastructure, community development, and parks, recreation, and open space planning.

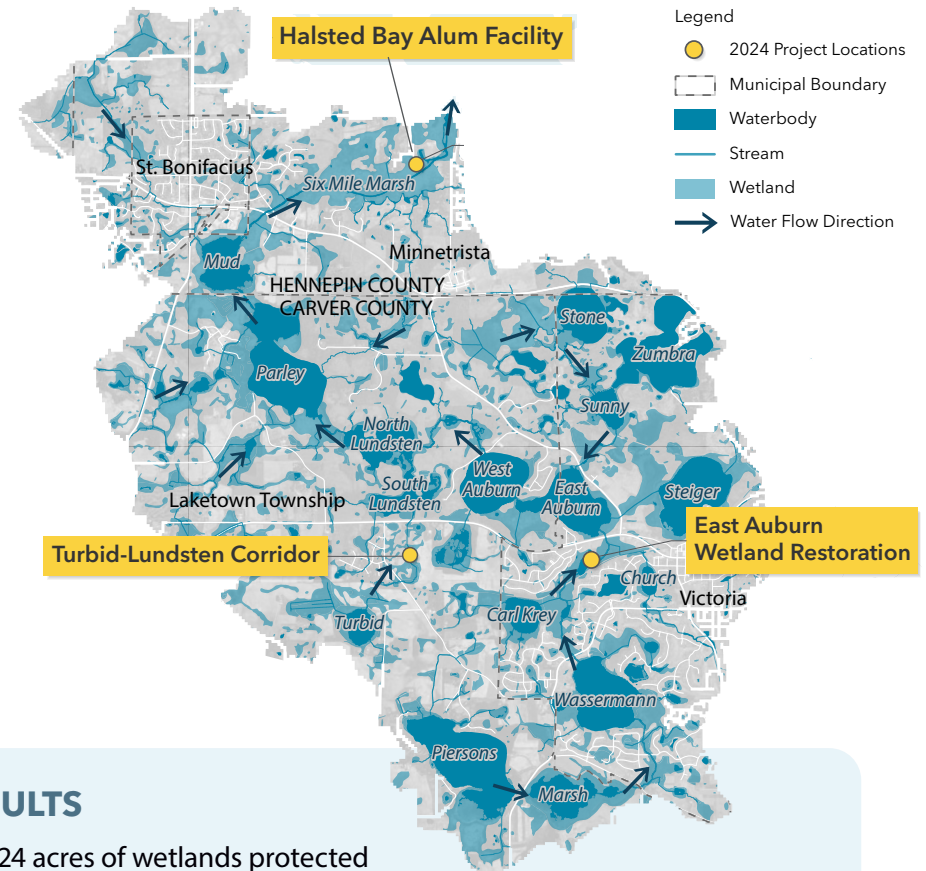
STRATEGY

- Restore wetlands to reduce phosphorus and improve habitat
- Reduce phosphorus by controlling in-lake nutrients
- Implement stormwater management with cities & developers
- Restore lake habitat by managing carp populations

WORK TO DATE

We have worked closely with the City of Victoria and other partners to restore Wassermann Lake, an impaired waterbody. Completed projects include a system wide carp management program, restoration of a 20-acre wetland in partnership with a private developer, and alum treatments of Wassermann Lake and an adjacent pond.

The restored lake can be enjoyed from the Wassermann Lake Preserve, a park situated on the Wassermann shoreline.



RESULTS

- 124 acres of wetlands protected
- \$1.2 million in outside capital leveraged
- 545 lbs/yr of nutrient loading reduced
- 190 acres of publicly accessible green space created
- 275,000 lbs of common carp reduced across 14 lakes
- 2,488 acres of deep and shallow lake habitat restored
- 25 percent improvement of nutrient concentrations at Six Mile Creek
- Wasserman Lake on track to be removed from State impaired list

SIX MILE CREEK - HALSTED BAY SUBWATERSHED 2024 ACTIVITIES

EAST AUBURN WETLAND RESTORATION

MCWD recently completed a feasibility assessment to determine project opportunities for the wetland system between Wassermann and East Auburn Lake. East Auburn is impaired for nutrients, and this wetland system has been identified as a major source. The restoration of this wetland will address the system's pollution by reducing nutrients by up to 135 lbs/yr and inform the design of future wetland restoration projects to improve the watershed's resources.

Right: The East Auburn Wetland complex, between Wassermann and East Auburn Lakes, is a major source of nutrients in the subwatershed. Below: Six Mile Creek flows through the Six Mile Marsh before flowing into Halsted Bay on Lake Minnetonka.



TURBID-LUNDSTEN CORRIDOR

This degraded wetland system presents a unique opportunity to create a contiguous wetland and habitat corridor while reducing nutrient levels in both Turbid and Lundsten Lakes. The project could restore up to 95 acres of wetland and reduce nutrient loading to Turbid and South Lundsten Lakes by 35 and 55 lbs/yr, respectively. This restored corridor would be an asset in the future Victoria Chain of Lakes, which aims to create a connected system of parks and open space as development progresses south and west.

LAKE MINNETONKA - HALSTED BAY ALUM FACILITY

MCWD is exploring the feasibility of a water quality treatment facility at the mouth of Six Mile Creek that would remove dissolved phosphorus from the stream before it enters Halsted Bay. This facility could remove 1,620 lbs/yr, approximately 50 percent of the nutrient load to Halsted Bay.

MINNEHAHA CREEK SUBWATERSHED

2024 BUDGET: \$4,175,734

This funding supports the implementation of capital projects in this subwatershed.

Minnehaha Creek flows nearly 23 miles from Lake Minnetonka and collects stormwater from Minnetonka, Hopkins, St. Louis Park, Edina, Richfield, and Minneapolis, before it makes its way into the Mississippi River.

The creek suffers from:

- A fragmented riparian corridor
- Polluted stormwater runoff
- Altered stream channels with risk of flooding
- Impairments for E. coli, chloride, and dissolved oxygen
- Creek pollutants degrade water quality in Lake Hiawatha

PARTNERSHIPS

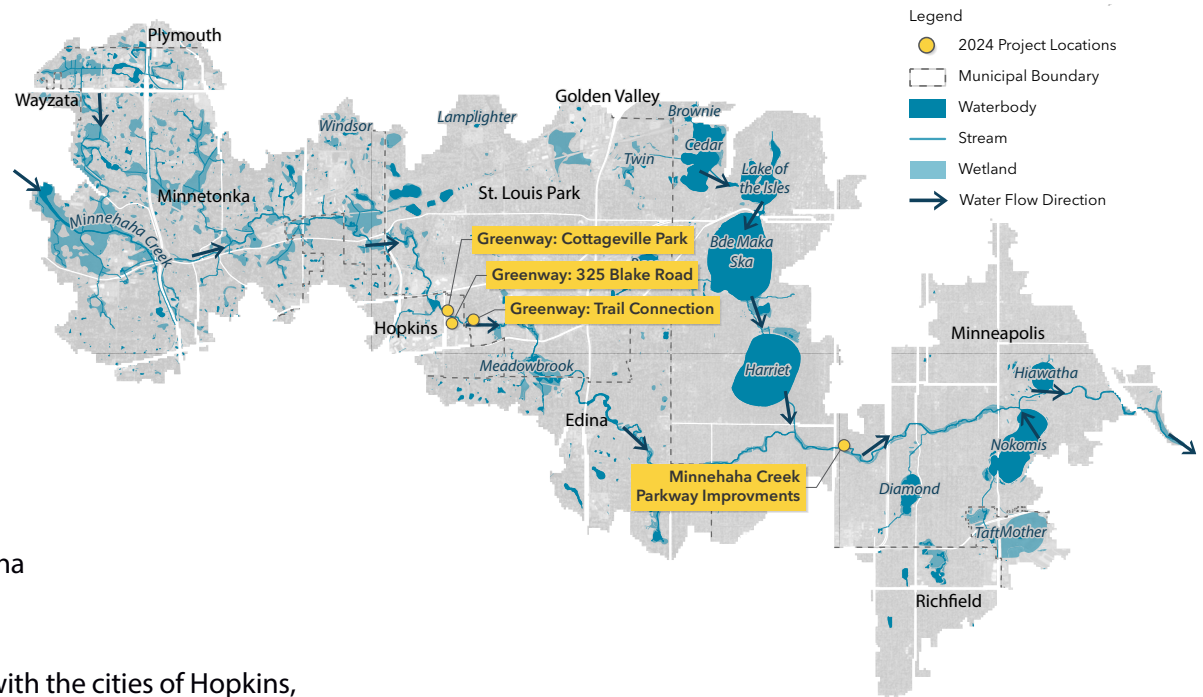
We have developed strong relationships and momentum with the cities of Hopkins, St. Louis Park, Edina, and Minneapolis to integrate natural resource goals with park planning, community development, and infrastructure improvements.

STRATEGY

- Manage regional stormwater to slow down water, reduce pollution entering the creek, and decrease flood risk while improving resilience
- Restore the creek to reduce bank erosion, slow down water, and improve habitat while increasing opportunities for public access and economic development
- Connect ecological corridors to maximize green space, enhance habitat, and increase flood storage

WORK TO DATE

Over the past decade, MCWD has partnered to re-meander sections of Minnehaha Creek, implement stormwater management, and create new recreation opportunities along the Minnehaha Creek Greenway. In 2022, MCWD also partnered with the City of Edina to restore Arden Park and improve the health of Minnehaha Creek.



RESULTS

- 19 percent reduction in phosphorus levels in Lake Hiawatha
- Creek chlorophyll-a concentrations now meet state standards
- 109 acres of newly accessible green space
- 30 acres of restored wetlands
- 150+ lbs of phosphorus removed per year
- 2.3 miles of new trails and boardwalk
- 1.5 miles of restored creek/banks
- \$4.6 million in outside funding leveraged

MINNEHAHA CREEK SUBWATERSHED 2024 ACTIVITIES

CONNECTING THE MINNEHAHA

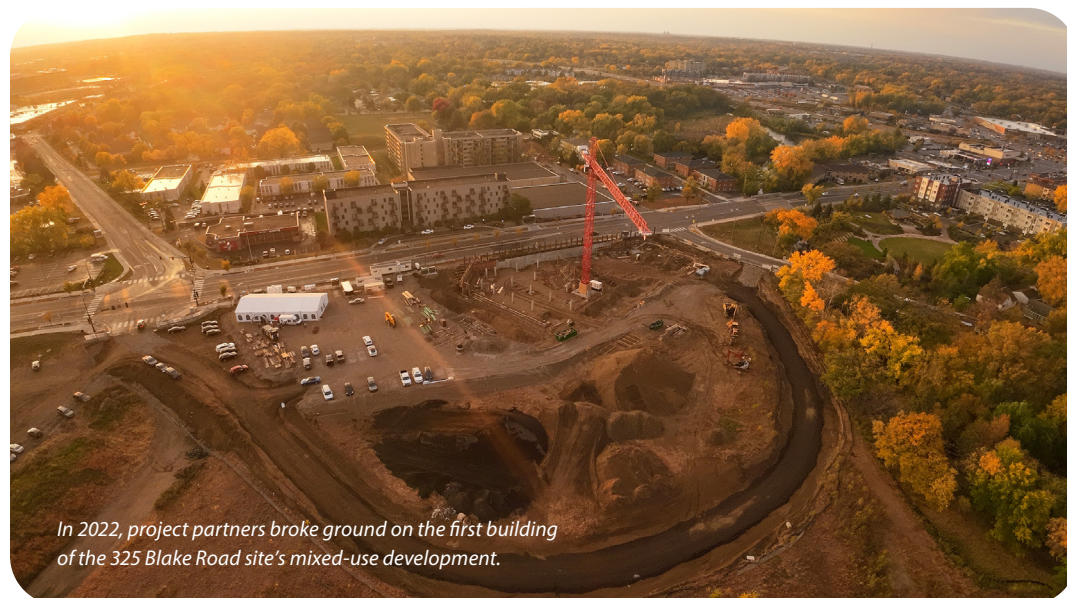
Over the past decade, MCWD has focused along the most degraded stretch of Minnehaha Creek to build projects that improve water quality and create a sense of place for communities. MCWD's 325 Blake Road project will be the capstone of the Minnehaha Creek Greenway, a 2-mile stretch of continuous greenspace between Hopkins and St. Louis Park. This project, on a former industrial site bordering Minnehaha Creek, will feature riparian restoration, recreational amenities, and regional stormwater treatment.

In partnership with the City of Hopkins and a developer, roughly 12 acres of 325 Blake Road will be transformed into an integrated, transit-oriented mixed-use development. The project will treat stormwater from 270 acres of the surrounding communities and reduce phosphorus by up to 385lbs/yr. In 2024, MCWD will start construction on the 325 Blake Road project and the expansion of Cottageville Park.

The Southwest Light Rail Transit (LRT) line provides another opportunity to connect communities in this revitalized corridor. In partnership with the City of St. Louis Park and the Metropolitan Council, a key connection will link investments along the Minnehaha Creek Greenway trail system to the Cedar Regional Trail and restore the streambank along the corridor.



Improvements along Minnehaha Parkway will improve the water resources of the Minneapolis area, including Minnehaha Creek and Lake Hiawatha.



In 2022, project partners broke ground on the first building of the 325 Blake Road site's mixed-use development.

IMPROVING THE MINNEHAHA PARKWAY

In 2020, the Minneapolis Park and Recreation Board (MPRB), in coordination with the City of Minneapolis and MCWD, adopted a 30-year plan for the Minnehaha Creek Regional Trail. Now four years later, MCWD, the MPRB and the City of Minneapolis are in the early stages of planning at least three projects over the next several years that will transform this natural space in south Minneapolis.

The proposed projects include strategies to manage and treat regional stormwater and restore the creek to improve its ecology, water quality, and adjacent infrastructure. The proposed projects will also improve water quality in the creek's receiving water body, Lake Hiawatha, which is impaired with excess nutrients.

A DATA-DRIVEN STRATEGY FOR RESILIENCE

ADAPTING TO A CHANGING CLIMATE

Water systems throughout Minnesota were built for stable, predictable precipitation patterns. Extreme swings in precipitation are impacting water quality, wildlife habitat, and the safety of homes, public infrastructure, and businesses. In 2023, MCWD adopted its Climate Action Framework (CAF), a roadmap for building resilience across the watershed.

The CAF identifies three pillars of our new approach: Understand & Predict, Convene & Plan, and Implement, Measure, & Adapt. In 2024, MCWD is poised to advance its understanding of how changing weather patterns will impact communities by building a high-resolution model of the watershed. This model will leverage advancements in data science and combine land surface information with local infrastructure data to provide a detailed understanding of surface and groundwater in the watershed.

A COLLABORATIVE APPROACH

With a foundation built on sound science, MCWD will engage technical experts, policymakers, and communities in 2024 to shape our next Watershed Management Plan, which will identify strategies to address the impacts of climate change in the watershed.

MCWD'S CLIMATE ACTION FRAMEWORK



Understand & Predict

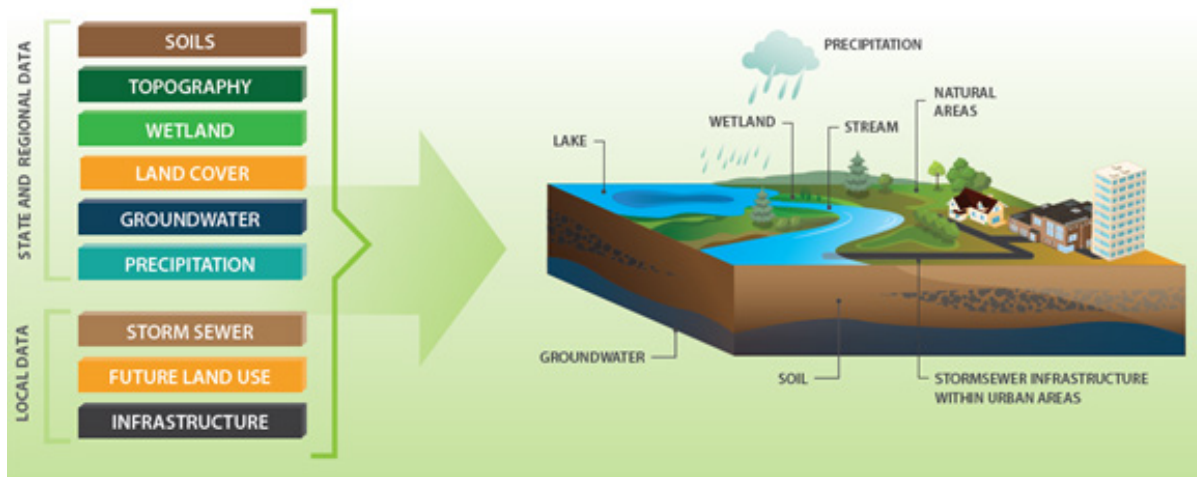


Convene & Plan



Implement, Measure, & Adapt

MCWD'S WATERSHED-WIDE MODEL



OUTPUTS

High-resolution understanding of complex watershed

Predict impact of changing climate

Identify natural resources most in need of protection

Quantitatively compare proposed projects

Improve flood forecasting and emergency response

2024 BUDGET: \$609,750

This budget supports climate action planning and engagement efforts, as well as the build of the 2-D watershed-wide model. MCWD also recently received funding from the Legislative Citizens Commission on Minnesota Resources (LCCMR) to build the high-resolution model.

WATERSHED-WIDE SERVICES

To serve partners and residents across the watershed's 178-square miles, we provide a variety of services that complement our work in focal geographies and through land and water partnerships.

BUILDING COLLECTIVE UNDERSTANDING

In 2024, MCWD continues to expand its network of real-time sensors (RESNET), which capture live data to characterize how water moves throughout the watershed, even with changing precipitation patterns. This data, collected in partnership with Hennepin County and the U.S. Geological Survey, enables MCWD to provide real-time water level information to partner agencies and the public. MCWD developed a machine learning model that uses remote sensing data from key RESNET locations to develop near-term water level forecasts, which support the optimization of the Gray's Bay Dam.



2024 BUDGET: \$1,844,420

This supports the delivery of critical services like monitoring, permitting, and outreach across the watershed.

SERVICES

- **Research and Monitoring:** Collecting and analyzing data across the watershed to identify resource needs to inform planning and implementation.
- **Permitting:** Reviewing and overseeing construction activities, in coordination with our communities, to protect natural resources from degradation as a result of land use change.
- **Outreach:** Connecting people to information they value and engaging residents, agencies, and private sector partners to ensure that our work is integrated with the goals of our communities.
- **Project Maintenance and Land Management:** Maintaining our projects and land to ensure their continued function and value, and managing the operation of Gray's Bay Dam to balance the water budget throughout our 178-square miles and reduce the risk of flooding.

Find contact information for MCWD's Board of Managers and program staff at our new website: www.minnehahacreek.org



MINNEHAHA CREEK
WATERSHED DISTRICT