

MEETING DATE: April 13, 2017

TITLE: Authorization to Release the Annual Report to the Board of Water and Soil Resources

RESOLUTION NUMBER: 17-029

PREPARED BY: Rachel Workin, Permitting Technician

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TELEPHONE: 952-641-4518

REVIEWED BY: Administrator Counsel Program Mgr. (Name): _____
 Board Committee Engineer Other

WORKSHOP ACTION:

<input type="checkbox"/> Advance to Board mtg. Consent Agenda.	<input type="checkbox"/> Advance to Board meeting for discussion prior to action.
<input type="checkbox"/> Refer to a future workshop (date): _____	<input type="checkbox"/> Refer to taskforce or committee (date): _____
<input type="checkbox"/> Return to staff for additional work.	<input type="checkbox"/> No further action requested.
<input checked="" type="checkbox"/> Other (specify): <u>Approval requested at April 13, 2017 Board Workshop.</u>	

PURPOSE or ACTION REQUESTED:

Authorization to release the 2016 Annual Report to the Board of Water and Soil Resources

SUMMARY:

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

Minnesota Statutes Chapter 103D.351 requires watershed districts to file an annual activity report with BWSR, and for metro watershed districts, the report must meet the requirements described in MR 8410.0150. This annual report includes information on Board members and staff, the previous and current years’ work plans, biannual progress toward goals, water quality trends, communication activities, solicitation of consultant services, local plan adoption and implementation, and permits and violations. The annual report is due to BWSR within 120 days of the end of the calendar year (April 30, 2017).

The District is also required to submit a copy of its annual audit report to BWSR within 180 days of the end of the District’s fiscal year. The District’s 2016 audit will be included as an appendix to the annual activity report.

RESOLUTION

RESOLUTION NUMBER: 17-029

TITLE: **Authorization to Release the Annual Report to the Board of Water and Soil Resources**

WHEREAS, Minnesota Statutes 103D.351 and Minnesota Rule 8410.0150 require that an annual activity report be submitted to the Board of Water and Soil Resources (BWSR) that includes information on Board members and staff, the previous and current years' work plans, biannual progress toward goals, water quality trends, communication activities, solicitation of consultant services, local plan adoption and implementation, and permits and violations; and

WHEREAS, this report is due annually within 120 days of the end of the calendar year; and

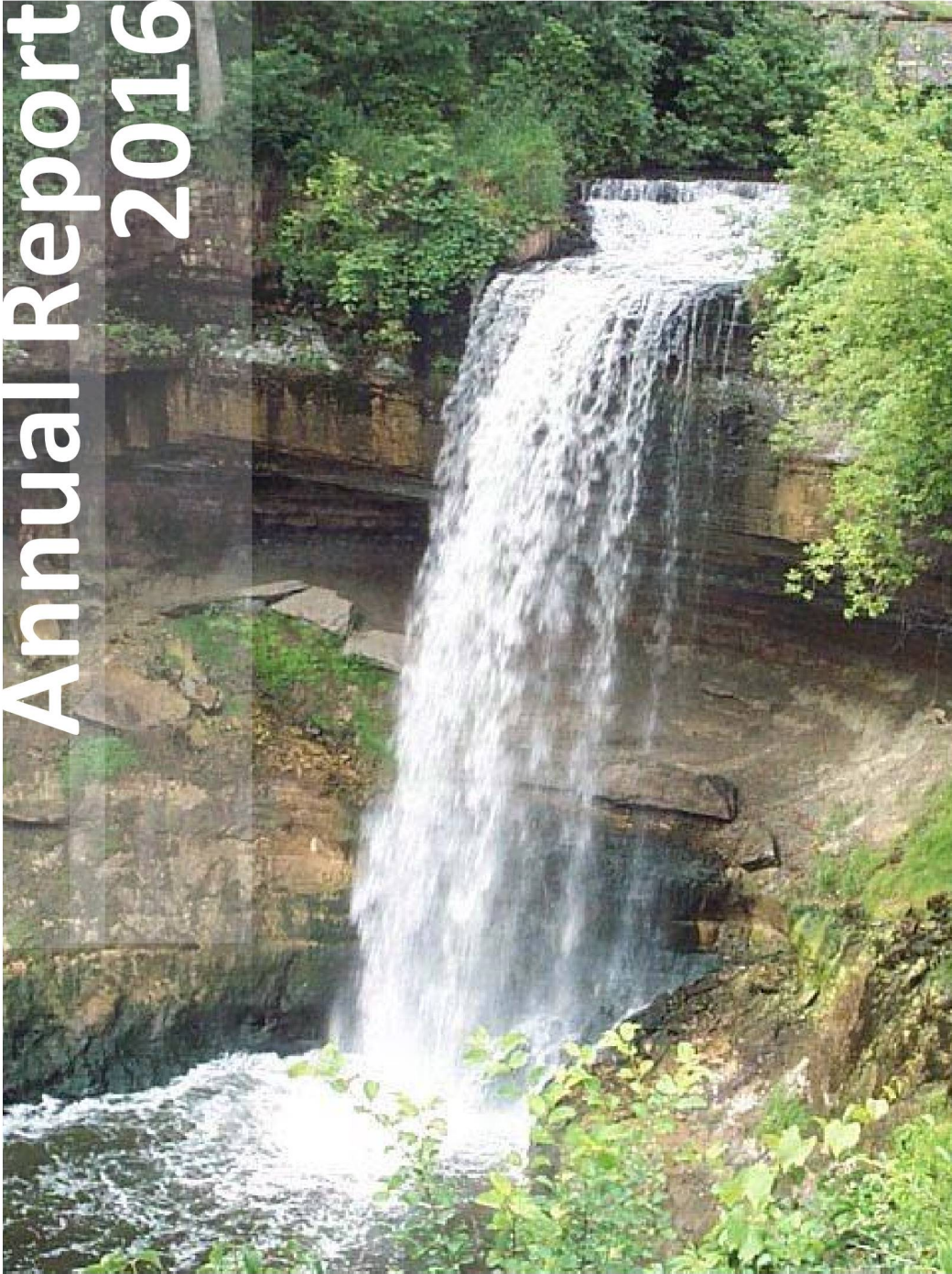
WHEREAS, Minnesota Rule 8410.0150 further requires that the District submit a copy of its annual audit report to BWSR within 180 days of the end of the District's fiscal year;

NOW, THEREFORE, BE IT RESOLVED, that the Minnehaha Creek Watershed Board of Managers accepts the 2016 Annual Report and authorizes its release, along with the District's 2016 audit, to BWSR.

Resolution Number 17-029 was moved by Manager _____, seconded by Manager _____.
Motion to adopt the resolution ___ ayes, ___ nays, ___ abstentions. Date: _____.

Secretary Date: _____

Annual Report 2016



Minnehaha Creek Watershed District 2016 Annual Report to the Board of Water and Soil Resources



2016 Annual Report

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1.0 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 Soil and Water Resources. Metro watershed districts are required to follow reporting requirements described in MR 8410.0150.

2.0 Annual Audit Report

Provided below is a summary of the District's 2016 budget, revenues, and expenditures. The full 2016 audit report is included as Appendix 1.

Table 1. 2016 Budget, Revenues, and Expenditures

Budget	
General Operations	1,527,969
Projects and Programs	11,268,125
Total Budget	12,796,094
Revenues	
Levy	8,691,109
Intergovernmental	228,255
Permits	79,800
Investment income	60,183
Rental income	1,536,159
Other	60,077
Total Revenues	10,656,213
Total Expenditures	11,996,632

3.0 Annual Activity Report

The following information is provided to satisfy the requirements of MN Rules 8410.0150, Subpart 3.

3.A. Board Members

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

Table 2. MCWD Board of Managers

Manager	County	Contact Information
Sherry Davis White, President	Hennepin	swhite@minnehahacreek.org
Brian Shekleton, Vice President	Hennepin	bshekleton@minnehahacreek.org
Richard Miller, Treasurer	Hennepin	rmiller@minnehahacreek.org
Kurt Rogness, Secretary	Hennepin	krogness@minnehahacreek.org
Bill Becker	Hennepin	bbecker@minnehahacreek.org
Jessica Loftus	Hennepin	jloftus@minnehahacreek.org
Bill Olson	Carver	bolson@minnehahacreek.org

3.B. Staff Contact Information

The District currently employs 30 staff. The names, job titles, and contact information are provided in Table 3. The District maintains an office for staff and meetings. The address is given below:

Minnehaha Creek Watershed District Office
15320 Minnetonka Blvd.
Minnetonka, MN 55345
Ph: 952-471-0590 Fax: 952-471-0682
Email: admin@minnehahacreek.org
www.minnehahacreek.org

Table 3. MCWD Staff Contacts

Name	Job Title	E-mail	Phone
Lars Erdahl	District Administrator	lerdahl@minnehahacreek.org	(952) 641-4505
Telly Mamayek	Communications and Education Director	tmamayek@minnehahacreek.org	(952) 641-4508
Darren Lochner	Education Program Manager	dlochner@minnehahacreek.org	(952) 641-4524
Sarah Fellows	Education Coordinator	sfellows@minnehahacreek.org	(952) 641-4507
David Mandt	Operations and Support Services Director	dmandt@minnehahacreek.org	(952) 641-4503
Maddie Johnson	Technical Support Services Specialist	mjohnson@minnehahacreek.org	(952) 641-4500
Chris Lizee	Receptionist / Administrative Assistant	clizee@minnehahacreek.org	(952) 641-4500
Kristin Terrell	Receptionist / Administrative Assistant	kterrell@minnehahacreek.org	(952) 641-4500
Katherine Sylvia	Permitting Program Lead	ksylvia@minnehahacreek.org	(952) 473-2855
Heidi Quinn	Permitting Technician	hquinn@minnehahacreek.org	(952) 641-4504
Rachel Workin	Permitting Technician	rworkin@minnehahacreek.org	(952) 641-4518
Theresa Zerby	Permitting Clerk	tzerby@minnehahacreek.org	(952) 641-4519
Chase Vanderbilt	District Representative - Permitting	cvanderbilt@minnehahacreek.org	(952) 641-4580
Luke Menden	District Representative - Permitting	lmenden@minnehahacreek.org	(952) 641-4586
Jack Distel	District Representative - Permitting	jdistel@minnehahacreek.org	(952) 641-4581
James Wisker	Planning and Projects Director	jwisker@minnehahacreek.org	(952) 641-4509
Rena Clark	Planner - Project Manager	rclark@minnehahacreek.org	(952) 641-4510
Becky Christopher	Lead Planner - Project Manager	bchristopher@minnehahacreek.org	(952) 641-4512
Michael Hayman	Planner - Project Manager	mhayman@minnehahacreek.org	(952) 471-8226

Anna Brown	Planner - Project Manager	abrown@minnehahacreek.org	(952) 641-4522
Matt Cook	Planning Assistant	mcook@minnehahacreek.org	(952) 641-4506
Tiffany Schaufler	Project and Land Program Manager	tschaufler@minnehahacreek.org	(952) 641-4513
Laura Domyancich	Project and Land Technician	ldomyancich@minnehahacreek.org	(952) 641-4582
Craig Dawson	Research and Monitoring Director	cdawson@minnehahacreek.org	(952) 471-8306
Eric Fieldseth	AIS Program Manager	efieldseth@minnehahacreek.org	(952) 471-7873
Yvette Christianson	Water Quality Manager	ychristianson@minnehahacreek.org	(952) 641-4514
Kelly Dooley	Water Quality Manager	kdooley@minnehahacreek.org	(952) 641-4515
Kailey Cermack	Water Quality Technician	kcermack@minnehahacreek.org	(952) 641-4501
Jill Sweet	AIS Technician	jbjorklund@minnehahacreek.org	(952) 471-8976
Marcie Lapointe	District Representative - Water Quality	mlapointe@minnehahacreek.org	(952) 641-4517

3.C. Assessment of 2016 Work Plans

District staff prepared 34 individual work plans for 2016 as listed below. All activities were substantially completed as proposed with the exception of the FEMA Flood Repairs and Meadowbrook Golf Course projects which experienced delays and are expected to proceed in 2017. Expenditures under each work plan are included in the audit report in Appendix 1.

- Operations and Support Services:
 - General Operations (1002)
 - Information Technology (1003)
 - Government Relations (2406)
- Planning and Permitting:
 - Permit Administration (2001)
 - Planning and Projects (2002)
 - Project Maintenance and Land Management (2003)
 - Land Conservation (2004)
 - Land Restoration (2005)
 - Habitat Restoration Initiative (2006)
- Capital Projects:
 - Six Mile Marsh Prairie Restoration (3106)
 - Minnehaha Falls/Gorge (3120)

- Minnehaha Creek Reach 19-21 (3133)
- Steiger Lake Wetland Restoration (3135)
- Turbid-Lunsten/Six Mile Creek (3139)
- Taft/Legion Improvements (3140)
- Minnehaha Creek Reach 14 Stabilization (3141)
- Long Lake Creek Corridor (3142)
- 325 Blake Rd Stormwater Management (3145)
- Cottageville Park (3146)
- 54th St. Stream Restoration (3147)
- FEMA Flood Repairs (3148)
- Highway 101 Causeway (3149)
- Meadowbrook Golf Course (3150)
- Powell-Meadowbrook Stormwater (3151)
- Education and Communications:
 - Cynthia Krieg Education Grant (4001)
 - Education (4002)
 - Communications (4003)
 - Cost Share (4005)
- Research and Monitoring:
 - Water Quality (5001)
 - E-Grade (5002)
 - Lake Nokomis Project (5003)
 - Joint Watershed Research Grant Program (5004)
 - Aquatic Invasive Species (AIS) (5005)
 - Research and Monitoring General Operations (5006)

Appendix 2 includes the District's 2016 annual report publication highlighting major activities from each of the District's programs.

3.D. 2017 Work Plans

District staff prepared 24 individual program and project work plans for 2017 which can be found on the District website at: <http://www.minnehahacreek.org/about/district-finances/budget>.

3.E. Evaluation of Progress on Goals and Implementation Actions

The annual reporting requirements under the newly revised MN Rules 8410 call for an evaluation of progress toward goals and implementation actions every two years. As a part of its 2017 Comprehensive Plan update which is scheduled to be complete at the end of this year, the District is in the process of compiling information on progress made toward the goals set in the 2007 Plan. This information will be included in next year's annual activity report to BWSR.

In 2016, the District undertook a strategic planning process through which it evaluated and aligned all of its programs under its new, refocused mission to protect and improve land and water for future generations. The overarching organizational strategy to accomplishing the District's mission is to 1.) develop high impact capital projects integrated with non-water

initiatives through multi-jurisdictional partnerships and 2.) change the land-use and water policy environment to increase early value added partnership with private development, public infrastructure and public policy/planning. Through the strategic planning process the District assessed all of its activities to identify the projected outcomes, resources allocated, and metrics that will be used to measure progress. Operationalizing the resulting 2017 Strategic Alignment Plan will provide a framework for future evaluation and reporting.

3.F. Trends in Monitoring Data

The Research and Monitoring Department evaluated long-term trends on lakes in the District. The water quality for the majority of lakes was assessed from 2001-2016. Using R-studio statistical package, trends were computed using the Mann-Kendall test on water clarity (SECC), algal abundance (CHLA) and total phosphorus (TP) in the epilimnion on lakes with at least eight years of consecutive data. About 50 lakes within the Watershed District met this criteria. An alpha of 0.05 was used to determine if the p-value is significant. Similar analyses will be conducted on the water quality and yields for major stream stations (about 17 stations) throughout the watershed. The statistics for all the lakes and stream stations analyzed will be included in the 2016 Research and Monitoring Report, which will be available in May 2016 on the District website at: <http://www.minnehahacreek.org/data-center/annual-monitoring-reports>. Lakes with significant trends are displayed in Tables 4.

Lake Harriet and Lake Minnewashta had significant degradation in at least one water quality parameter. Lake Nokomis had significant improvements in chlorophyll and phosphorus concentrations. The biomanipulation study the District conducted to improve water quality in Lake Nokomis occurred during this time frame. The Lake Nokomis Biomanipulation Study Technical Report will be posted on the District's website later this year.

For Lake Minnetonka, the eastern bays had the most significant change observed over the fifteen-year period. Most of those bays had significant improvements in chlorophyll-*a* and phosphorus concentrations and water clarity. The significant improvement in water clarity for the eastern bays was less than 0.29 m/year. Zebra mussels were discovered in Lake Minnetonka in 2011. As an extension of the zebra mussel study conducted by the District, water quality from 5 years before and after 2011 was statistically compared. The eastern bays had significant improvements in water clarity, chlorophyll-*a*, and phosphorus after the introduction of zebra mussels. Peavey Lake and Priests Bay, a western bay, were the only Lake Minnetonka waterbodies with significant degrading water quality.

A handful of lakes in the Minnehaha Creek Watershed District had data analyzed from 2002-2016 and 2004-2016. The majority of these lakes were found to have significant improvements in water quality. Zumbra-Sunny Lake, specifically, the Zumbra bay, has significant improvements in water quality across all three parameters. Cedar Lake and Powderhorn Lake, are the exception, with significant degradation in water clarity.

Note: Church Lake did not have trend analyses conducted in 2015, but has least eight years of data. Data was analyzed from 2006-2015, and Church lake had significant degradation in water clarity at about 0.27 m/year. Stone Lake was reported last year to have significant improvement in chlorophyll-*a*; however, the lake actually had significant improvement in phosphorus.

Table 4. Significant water quality trends for lakes within Minnehaha Creek Watershed District

Trends: 2001-2016					
Lake	Parameter	Slope	Tau	p-value	Improving or Degrading
Harriet	TP	0.363	0.458	0.015	Degrading
Isles	CHLA	-1.558	-0.45	0.017	Improving
	TP	-1.024	-0.4	0.034	Improving
Lake Minnetonka: Black	CHLA	-2.313	-0.655	0.006	Improving
Lake Minnetonka: Crystal	SECC	0.122	0.517	0.006	Improving
Lake Minnetonka: Lower Lake South	SECC	0.134	0.417	0.027	Improving
	CHLA	-0.215	-0.483	0.010	Improving
Lake Minnetonka: Peavey	SECC	-0.014	-0.442	0.019	Degrading
	TP	3.022	0.383	0.043	Degrading
Lake Minnetonka: St Albans	SECC	0.066	0.45	0.017	Improving
	CHLA	-0.222	-0.45	0.017	Improving
	TP	-0.548	-0.4	0.034	Improving
Lake Minnetonka: Wayzata	SECC	0.131	0.5	0.008	Improving
Long	SECC	0.044	0.6	0.002	Improving
Minnewashta	SECC	-0.058	-0.4	0.042	Degrading
Nokomis	CHLA	-0.956	-0.433	0.022	Improving
	TP	-1.611	-0.433	0.022	Improving
Zumbra-Sunny (Zumbra Bay)	SECC	0.168	0.695	0.0004	Improving
	CHLA	-0.772	-0.543	0.005	Improving
	TP	-0.636	-0.429	0.029	Improving
Trends: 2002-2016					
Lake	Parameter	Slope	Tau	p-value	Improving or Degrading
Cedar	SECC	-0.071	-0.448	0.023	Degrading
Grass	CHLA	-1.523	-0.667	0.016	Improving
Powderhorn	SECC	-0.060	-0.429	0.037	Degrading
Steiger	CHLA	-0.948	-0.576	0.011	Improving
West Auburn	CHLA	-0.800	-0.410	0.038	Improving
Trends: 2004-2016					
Lake	Parameter	Slope	Tau	p-value	Improving or Degrading
Lake Minnetonka: Carsons	SECC	0.223	0.538	0.012	Improving
	CHLA	-0.29	-0.436	0.044	Improving
	TP	-0.647	-0.436	0.044	Improving
Lake Minnetonka: Grays	SECC	0.148	0.436	0.044	Improving
Trends: 2005-2016					
Lake	Parameter	Slope	Tau	p-value	Improving or Degrading
Lake Minnetonka: Lafayette	SECC	0.253	0.606	0.007	Improving
	CHLA	-0.467	-0.667	0.003	Improving
Trends: 2006-2016					
Lake	Parameter	Slope	Tau	p-value	Improving or Degrading
Lake Minnetonka: Spring Park	SECC	0.286	0.655	0.006	Improving
	TP	-0.880	-0.6	0.013	Improving
Lake Minnetonka: Priests	TP	2.124	0.782	0.001	Degrading
Corrections - Trends: 2006-2015					
Lake	Parameter	Slope	Tau	p-value	Improving or Degrading
Church	SECC	-0.267	-0.714	0.0355	Degrading
Corrections - Trends: 2007-2015					
Lake	Parameter	Slope	Tau	p-value	Improving or Degrading

Stone	TP	-1.888	-0.642	0.0354	Improving
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3.G. Annual Communications

MCWD developed a strategic plan for communications in 2013 which guides how the District delivers messages to key audiences. In 2016, MCWD issued a total of 19 news releases, 14 newspaper columns, and 42 e-newsletters on topics including capital projects, program activities, water quality data, events, and finances. The District distributed both a mid-year and annual report to cities, counties, state agencies, and other stakeholders. The annual report can be found in Appendix 2. Other past news releases and newsletters can be found at: <http://www.minnehahacreek.org/about/newsroom>. The MCWD website received nearly a quarter-million views in 2016 and the District continued an active social media presence on Facebook, Twitter, Instagram and YouTube.

3.H. Solicitation of Services

In 2016, in accordance with MN Statutes 103B.227, the District solicited professional services for legal counsel, engineering, managed service provider, and government relations. The process will be repeated in 2017.

3.I. Status of Local Plans

There are three of twenty-nine communities in the watershed that have not completed updates to their local water management plans in response to the District’s last plan update: Chanhassen, Watertown Township, and Laketown Township. These plans have been requested repeatedly by the District. With revised local water plans now due for all communities in 2017-2018, the District will focus its effort on ensuring that the next round of plans are completed in compliance with Minnesota Statutes 103B.235 and Minnesota Rules 8410.0160.

The primary requirement of local government units (LGUs) in the District’s 2007 Plan was the assignment of load reduction targets. The District’s 2007 Plan requires that LGUs report annually to the District regarding progress toward these targets and other implementation activities in their local plans. Several LGUs have already met these targets, and others are still in progress. Since the adoption of the 2007 Plan, the MN Pollution Control Agency (MPCA) completed Total Maximum Daily Loads (TMDLs) for the majority of nutrient-impaired lakes in the District. The load reduction requirements placed on LGUs under these TMDLs are generally higher than those required under the District’s 2007 Plan. The District’s 2017 Plan will be updated to align with the TMDL goals and will establish a framework for working cooperatively with communities to make progress toward these reductions.

3.J. Status of Locally Adopted Ordinances

The District’s Plan did not establish any requirements for local ordinances.

3.K. Permits, Variances, and Violations

In 2016, the MCWD reviewed and processed 673 permits. This represents a 9.6% decrease from permits received during 2015. In 2016, permitting authority for erosion control was delegated to the City of St. Louis Park within the City. One permit application was denied and one variance was granted in 2016. A total of 403 inspections were completed in 2016. The majority of non-compliant sites were resolved through MCWD inspection reports to permittees and on-site meetings to go over corrections and solutions to site-specific issues. MCWD issued one notice of probable violation in 2016. One formal enforcement action was issued by the MCWD Board and one Wetland Conservation Act violation was referred to the DNR.



2016

YEAR IN REVIEW



MINNEHAHA CREEK
WATERSHED DISTRICT

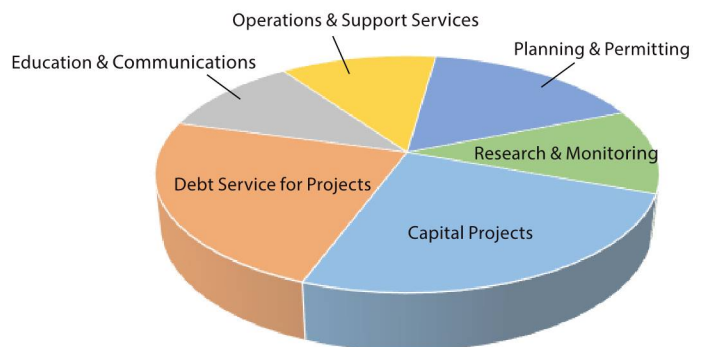
Pictured: Minnehaha Creek below Minnehaha Falls, first place winner in the 2016 Earth Day Photo Contest (photo by Ernesto Ruiz)

BUDGET

	2015	2016	Change
Levy	\$ 8,291,310	\$8,705,875	5.00%
Budget	\$ 14,206,850	\$12,796,094	-9.93%

2016 BUDGET ALLOCATIONS

Capital Projects	\$ 3,212,147
Debt Service for Projects	\$ 3,018,369
Education & Communications	\$ 1,408,948
Operations & Support Services	\$ 1,527,969
Planning & Permitting	\$ 2,147,035
Research & Monitoring	\$ 1,481,626



More information at minnehahacreek.org/budget

MCWD Board of Managers

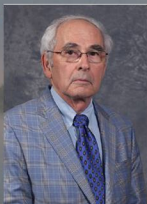


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The Minnehaha Creek Watershed District (MCWD) is responsible for 181 square miles that drain into the Minnehaha Creek and ultimately the Mississippi River. There are eight major creeks, 129 lakes, and thousands of wetlands within the MCWD. The MCWD includes all or part of 27 cities and two townships in Hennepin and Carver counties.



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FROM THE ADMINISTRATOR



As we celebrate our 50th year as a watershed district, I've been impressed with the rich history of this organization. Since I've only been here for a fraction of that time, I'm proud to brag a bit about the great work others have accomplished over the past five decades.

Since its inception, MCWD has been on the cutting edge of protecting and improving our water resources – some of the most popular and valued in the state. Right out of the gate, we focused on longstanding flooding issues on Minnehaha Creek and Lake Minnetonka by building and operating the Gray's Bay dam according to a detailed plan developed in partnership with our communities.



Throughout the 70's and 80's we helped close down the eight sewage treatment facilities that discharged directly into Lake Minnetonka and participated in a groundbreaking study of the value of wetlands that was recognized as a landmark national study by the federal Environmental Protection Agency.

In the 90's we were a central player in an award-winning partnership that helped make the Minneapolis Chain of Lakes some of the healthiest urban lakes in the nation. Our work to restore and expand access to Minnehaha Falls and Glen in the 2000's protected and enhanced one of the state's most visited attractions.

Today, we are more diligent than ever in addressing new clean water issues and opportunities. In particular, we focus on integrating our water work with land use planning, and leveraging the inherent value of healthy natural spaces to make our communities more vibrant and livable.

A common theme in the stories that follow is our commitment to understanding the goals of our partners and communities, aligning plans and investments, and working together for shared benefit. This approach is summed up in our motto: "Quality of Water, Quality of Life."

Later this year we'll publish our updated Comprehensive Plan, a road map for the next decade of our clean water work. It will memorialize our collaborative approach and define how we will make this vision a reality. The plan update has brought our many partners together to identify where our plans for water resources can integrate with their goals, and we have already realized enormous value from this inclusive process.

We are excited to reap the natural resource and community benefits of this plan during the next 10 years (and beyond!) and look forward to working with you to protect and improve land and water for current and future generations.

- Lars Erdahl

January 2017

IN PURSUIT OF A BALANCED URBAN ECOLOGY

Partnership

We will join with others in pursuing our watershed management goals

Focus

We will intensify and maintain our focus on high-priority projects

Flexibility

We will be flexible and creative in adapting our practices to those of our partners

PROJECTS AND PLANNING

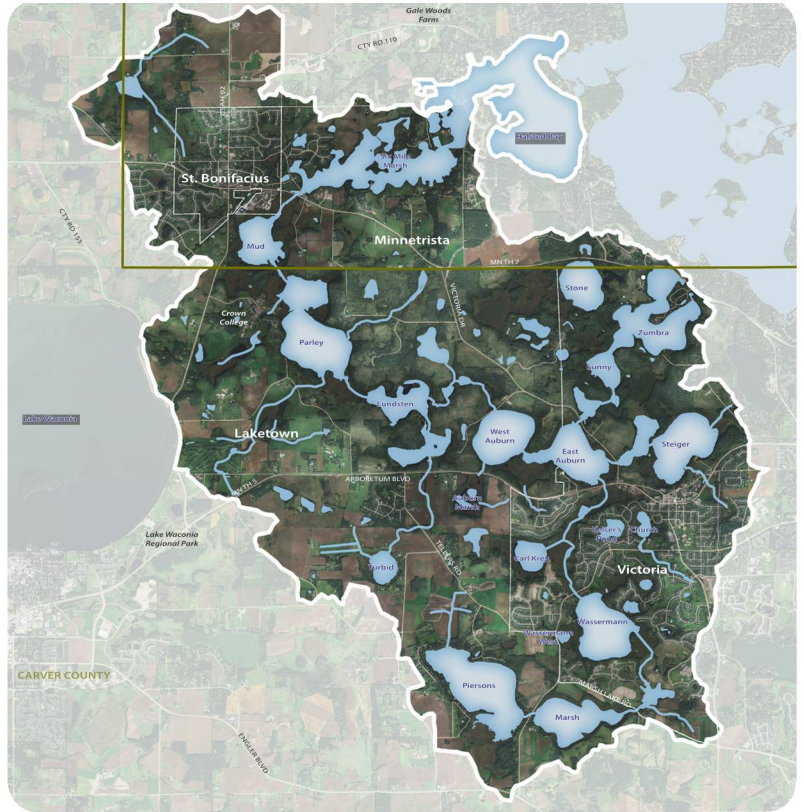
FOCUSING ON THE HEADWATERS OF THE WATERSHED

One of the hallmarks of our approach to watershed management is the “focal geography” – a commitment to focusing time and resources in a specific area in order to make significant, lasting improvements. The approach developed from our work in the formerly degraded stretch now known as the Minnehaha Creek Greenway, where we’ve worked since 2010 to build relationships and understand the goals of the communities and landowners in the area.

In 2015 the MCWD Board of Managers declared the Six Mile Creek-Halsted Bay subwatershed as our next focal geography, and since then we have worked to bring together the agencies and landowners in the area to find out where we can make water quality improvements that align with community goals.

This approach benefits more than just the residents of the subwatershed. This complex system of 14 lakes and hundreds of wetlands drains into Halsted Bay, which is among the most degraded bays in Lake Minnetonka. As the headwaters of the entire watershed, improvements to this system have benefits far downstream.

The area also poses great opportunity. It is currently the least developed subwatershed within MCWD but is undergoing rapid change, so the land use decisions made now will have lasting effects on the future of the region. By bringing landowners, developers and policymakers together, we are identifying opportunities to improve natural resources in ways that support vibrant, livable communities and achieve mutually beneficial goals.



SIX MILE-HALSTED BAY PLANNING PARTNERSHIP

- Carver County
- City of Minnetrista
- City of St. Bonifacius
- City of Victoria
- City of Waconia
- Hennepin County
- Laketown Township
- Minnehaha Creek Watershed District
- Three Rivers Park District

We’ve convened the Six Mile-Halsted Bay Planning Partnership to ensure ongoing communication about plans, priorities and opportunities for collaboration in the region. The partnership committee has been briefed on water resource issues within the geography, has weighed in on local and agency priorities, and has helped shape the plan format and content.

The partners will continue to be involved as we identify, prioritize and implement projects in the subwatershed. Those projects may include large scale wetland restorations, carp management, in-lake and watershed phosphorus reduction actions, and others. To learn more or get involved, visit minnehahacreek.org/six-mile.



CREATIVE PROBLEM SOLVING

ADDING VALUE THROUGH PERMITTING FOR THE METHODIST HOSPITAL FLOOD WALL

Record rains in 2014 pushed Minnehaha Creek out of its banks for much of that summer. One of the trouble spots was at Methodist Hospital in St. Louis Park where the overflowing stream threatened to cut off access to the loading dock and interrupt the delivery of life-saving medical supplies. Hospital staff worked tirelessly to stack thousands of sandbags into a makeshift levee to keep the water at bay.

To protect its operations from future flood events, the hospital decided to build a permanent wall between the creek and loading dock. Building a flood wall reduces the amount of “floodplain” – a low-lying area where water naturally floods – which increases the flood risk for other areas. As a result, the District’s rules required the hospital to make up for that loss by creating a new floodplain.

Working together early in the design process, the hospital and MCWD found a solution that resulted in a plan that will improve both the creek and the hospital campus. The project will protect the hospital from future flooding, create the needed floodplain storage, restore a wetland, improve ecological diversity, and create another amenity for the hospital campus.

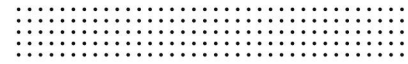
This project is another example of what sets us apart from other regulatory agencies. We prefer to partner on new construction projects early in the design process, where we can bring our resources and expertise to the table to achieve higher water quality and project outcomes. This approach achieves greater success than the standard regulatory route where we’re among the last to see a project’s design before construction.

The Methodist Hospital flood wall project is one of the many efforts to improve Minnehaha Creek through its most historically degraded stretch in St. Louis Park and Hopkins, an area now known as the Minnehaha Creek Greenway.

Sparked by a stream restoration on the Methodist Hospital campus in 2010, the Greenway has evolved through a series of projects, including the rejuvenation of Cottageville Park in Hopkins, the creation of the Minnehaha Creek Preserve in St. Louis Park and the expansion of a nearby business. Our recent collaboration on the Japs-Olson Company expansion resulted in more green space for stormwater treatment, a trail connection to the creek and a business expansion that was finished ahead of schedule, under budget and created 150 jobs.

To learn more about these efforts along the Minnehaha Creek Greenway, visit minnehahacreek.org/greenway.

LENDING TECHNICAL EXPERTISE



IMPROVING LAKE MINNETONKA DURING BUSHAWAY ROAD RECONSTRUCTION

Historic Bushaway Road, linking the cities of Wayzata and Minnetonka, reopened in 2016 after a major facelift. Like many projects we are involved in, this one was not principally about water. It was about connecting communities, creating safer roads, providing better options for walking and biking, and highlighting the beauty and history of the area.

However, by working closely with Hennepin County and the other partners involved with this project to understand the community's needs and goals, we used our expertise in water planning to add value to the project overall while improving the health of Lake Minnetonka.

The project involved reconstructing County Road 101 / Bushaway Road, which runs from U.S. Highway 12 to Minnetonka Boulevard and crosses Lake Minnetonka between Gray's Bay and Wayzata Bay. The project makes a variety of improvements to the road, including adding turn lanes and a bicycle/walking path.

We partnered with Hennepin County to protect and enhance the shoreline along both sides of the road as it crosses Lake Minnetonka. We used plants and other bioengineering techniques to reconstruct the shoreline, which reduces erosion, infiltrates stormwater, provides habitat and improves the aesthetics of the area. The work also reduces the risk of lake waves freezing on the road during the winter and meets community goals related to views and aesthetics.



Required by permit to make up for the amount of floodplain area within Lake Minnetonka that was lost as a result of the shoreline restoration, we developed on a solution that showcases our collaborative approach to protecting and improving water quality.

In partnership with the City of Minnetrista, we created a new floodplain area on a city-owned parcel near where Painter Creek enters Jennings Bay. In addition to creating enough new flood storage required to offset the effects of the Bushaway Road reconstruction and another nearby project, we also planted more than 300 trees and shrubs, and stabilized the banks of the creek with 775 new plants. The additional storage also will help the City of Minnetrista meet permitting requirements for future projects.

The multiple benefits this project achieves are evidence of the success that can be had by working together. Our innovative spirit, combined with our technical expertise, can help our partners get their work done and protect our land and water resources at the same time. This philosophy of collaboration is at the heart of our work to bring the national and built environments in balance and create a landscape of vibrant communities.



A COOPERATIVE PLAN OF ACTION

INCORPORATING OUR PARTNERS' GOALS INTO THE 2017 COMP PLAN

Past MCWD Comprehensive Plans focused narrowly on technical solutions to water quality issues – creating a laundry list of projects we planned to build and pollutant reduction standards we would require cities to meet.

In the past decade, we have grown to recognize the benefits of a more collaborative approach that integrates water planning with land use planning. As a result, our next Comprehensive Plan will focus on how we can achieve our goals for water in a manner that respects and aligns with the goals of our communities.

OUR PLAN WILL FOCUS ON HOW WE CAN ACHIEVE OUR GOALS FOR WATER IN A MANNER THAT RESPECTS AND ALIGNS WITH THE GOALS OF OUR COMMUNITIES

We are now in the home stretch of developing our 10-year Comprehensive Plan. We have been working to put our core ideas into action: bringing our various partners together to identify how we can work in cooperation for mutual benefit.

In December, we hosted a series of seven meetings with our partners, grouped by geographic location. We invited policymakers, key staff, and community leaders from these areas to discuss the water resource issues they are facing, the overall goals for their communities, and what projects they have planned. We also asked how we can best coordinate with our communities in the future so we can be involved in our partners' planning processes from the early stages, when we are best able to add value and help co-develop a plan for shared benefit.

The information our partners have shared with us will form the foundation for our 2017 plan. In the plan, we will highlight the issues and opportunities in each of our subwatersheds and lay out a process for working with our community partners. A draft of the plan will be available for review and comment by early summer. We hope to have it approved by the end of 2017. Learn more at minnehahacreek.org/2017.



MEASURING ECOLOGICAL INTEGRITY

GATHERING MORE HOLISTIC - AND USEFUL - DATA ABOUT OUR WATERS

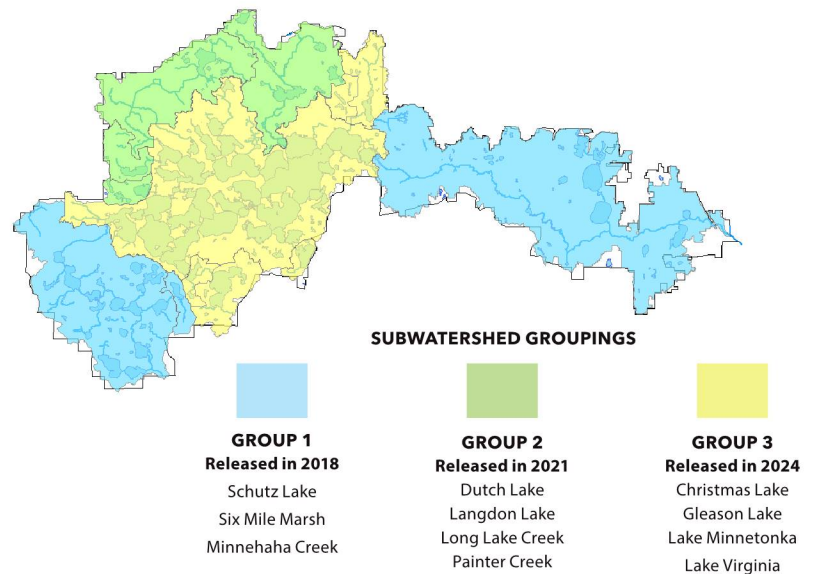
As most lake lovers know, there’s a lot more to a healthy and desirable lake than how far down you can see or the presence of algae. Many other questions come to mind: Can you swim and fish? Is it overrun with invasive plants? Does it flood easily?

On top of that, lakes aren’t the only water bodies that matter. The eight major streams and thousands of wetlands within our watershed are also important parts of the communities built around them.

To better gauge the health and quality of our watershed’s ecosystems, we’re preparing to transition from our traditional lake grades system to a more detailed and holistic reporting system called E-Grade. While annual lake grades summarize clarity and the content of phosphorus and algae, E-Grade incorporates other indicators of a healthy ecosystem, like flood control and habitat diversity. E-Grade also considers the interaction between lakes and other ecological features like land use or the streams that feed them.

Collecting this extra data will require us to focus our time and resources. Because lake conditions change very little year to year, we will be phasing out annual reports and providing more detailed information on a rotating group of subwatersheds every three years. This cycle will take seven years to complete across the watershed, which is sufficient time to document changes in a water body’s health.

For people interested in the health of their favorite lake, stream or wetland, this new system will provide much more detailed data. As importantly, it will be more useful for the District and our partners in developing solutions to water quality issues.



We’ve worked with a variety of the state’s leading technical experts over the past three years to develop this system and hope it will become a model for others to follow. We plan to publish two papers in peer-reviewed scientific journals, demonstrating approval from the greater scientific community. Learn more at minnehahacreek.org/e-grade.

RESEARCH AND ACTION

PROPELLING ZEBRA MUSSEL SCIENCE AT LAKE MINNEWASHTA

Science is the often slow-and-steady endeavor of learning about the world through observation and experiment. Action is what we take to solve problems, and we're usually bound to the time limits dictated by the problem.

In the right combination, science and action can lead to sudden leaps forward in our understanding of a problem. Since zebra mussels were discovered in Lake Minnetonka in 2010, we have pushed to better understand how these invasive species work and how we can best manage them.

In the fall of 2016, a pressing problem presented itself in the form of zebra mussels found in Lake Minnewashta, a clean and healthy lake just south of Lake Minnetonka. The circumstances were ripe for action: only 14 zebra mussels were found, all were concentrated near the boat launch, and the launch itself is in a small bay sheltered from the rest of the lake.

In the hope of preventing a full-blown infestation, we worked with Carver County, the Lake Minnewashta Preservation Association and Minnesota DNR to quickly respond to the discovery. In addition to eliminating the mussels within the treatment area, we also meticulously documented our process and findings along the way. A full report from the response was released in early 2017. This data helps us understand what worked and what didn't, and serves as a model for future responses.

Armed with lessons learned from a similar response in Christmas Lake the year prior, we cordoned off the 29-acre bay in September and treated it with the copper product EarthTecQZ. It was used at a much lower concentration than at Christmas Lake, which saved costs and helped reduce impacts to other species. It was the largest known open water treatment for zebra mussels in Minnesota history.



IT WAS THE LARGEST KNOWN OPEN WATER TREATMENT FOR ZEBRA MUSSELS IN MINNESOTA HISTORY

It will take several years of monitoring to confirm whether any mussels spread from the area. However, close inspection at the end of 2016 suggest the treatment killed 100 percent of the invasive mussels within 10 days of its application. If successful, it would be the first known eradication of zebra mussels in a Minnesota lake.

Learn more about the project and read the final report at minnehahacreek.org/minnewashta.



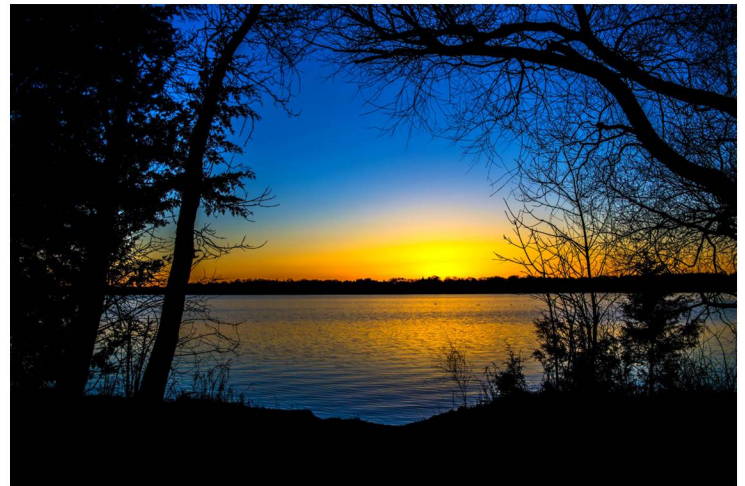
EARTH DAY PHOTO CONTEST

We were blown away by the quality of the entries in our second-annual Earth Day Photo Contest -- an equal testament to the skills of our residents and the beauty of our resources!

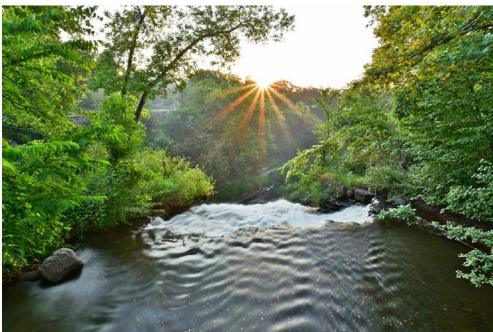
View full size versions and submit entries for the 2017 contest at minnehahacreek.org/contest.



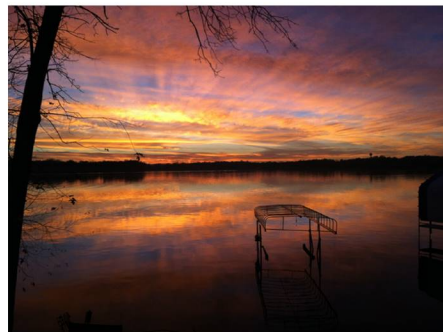
Minnehaha Creek below Minnehaha Falls, Ernesto Ruiz



Lake Harriet sunset, Bert J. Soyka



Sunrise over Minnehaha Falls, Justin Pruden



Lake Minnetonka sunset, Kristine Houtman



Icy March sunset over Gray's Bay, Chris Murphy

HARNESSING CITIZEN PASSION FOR WATER

CITIZENS ADVISORY COMMITTEE GUIDES MCWD WORK AND CONNECTS TO COMMUNITIES

Our watershed contains some of the state's most iconic waters: Minnehaha Falls, Minnehaha Creek, the Minneapolis Chain of Lakes and Lake Minnetonka.

We are also fortunate to have an abundance of another valuable resource: residents who are passionate about protecting these waters. This can be plainly seen in the high rates of participation in our Master Water Stewards program, citizen monitoring, and events like the Minnehaha Creek Cleanup.

It's also on display in our Citizens Advisory Committee, made up of nearly 20 residents from across the District. The group meets monthly to discuss clean water issues, review MCWD projects and policies, and recommend actions to the Board of Managers. They also bring messages about clean water and the District's work back to their communities.

To learn more about the committee's work or to apply to serve, visit minnehahacreek.org/CAC.

2017 COMMITTEE MEMBERS

Bill Bushnell, Minnetrista
Sliv Carlson, Woodland
Gerald Ciardelli, St. Louis Park
Bradley J. Coulthart, Minneapolis
Colin Cox, St. Louis Park
Elizabeth Crow, Minneapolis
Jacqueline Di Giacomo, Tonka Bay
Brian Girard, Orono
John Grams, Minnetonka
Linda Jahnke, St. Louis Park
Richard Manser, Edina
Steve Mohn, Eden Prairie
Richard Nyquist, Minneapolis
David Oltmans, Minneapolis
Cassandra Ordway, Long Lake
Peter Rechelbacher, Wayzata
Marc Rosenberg, Minnetonka
Neil Weber, Long Lake
Craig Wilson, Minnetonka

VOLUNTEERS MAKING A DIFFERENCE

CELEBRATING 10 YEARS OF THE MINNEHAHA CREEK CLEANUP



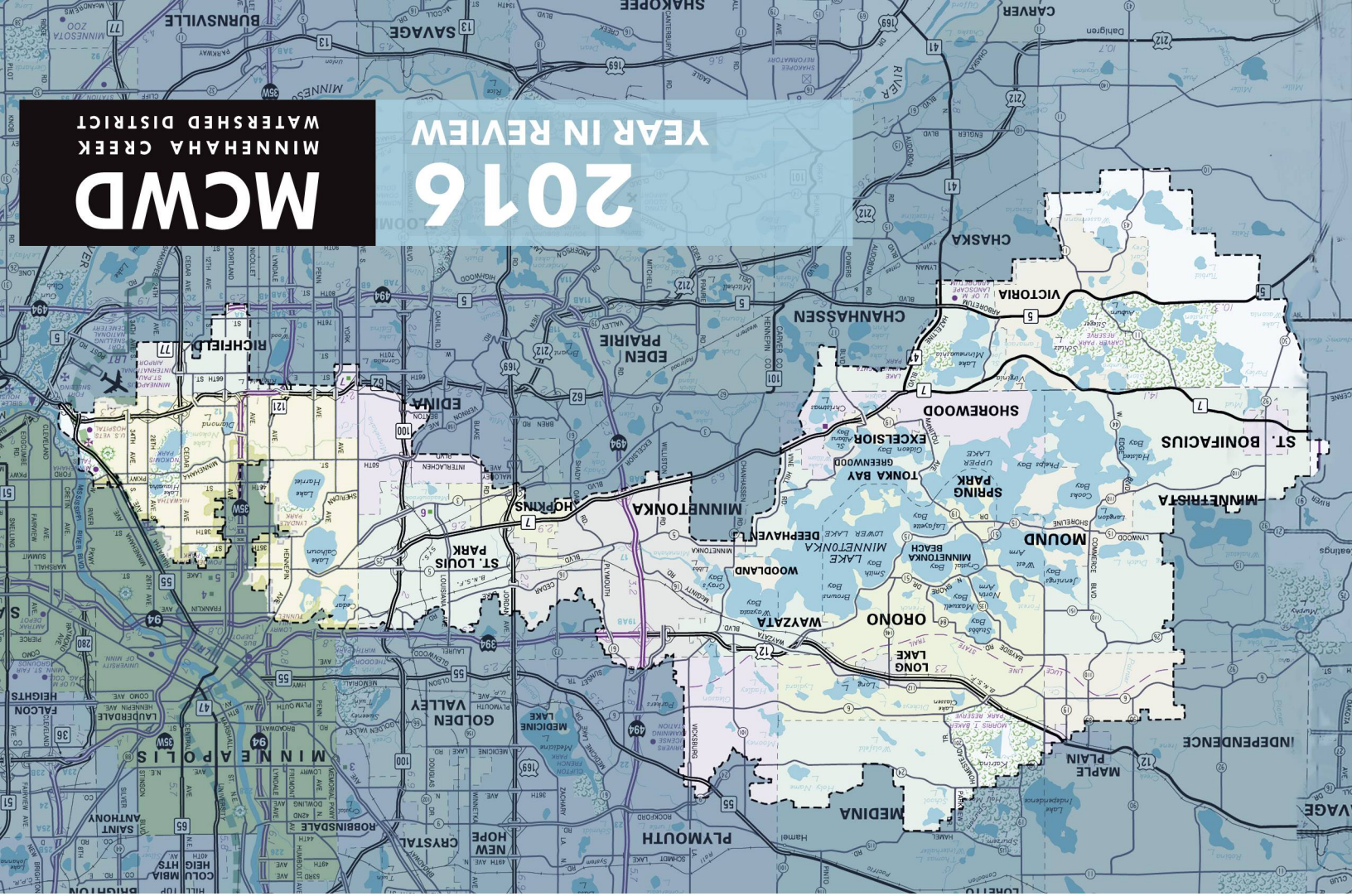
We celebrated our 10th annual Minnehaha Creek Cleanup in 2016, setting records for both attendance (2,000 people) and trash collected (five tons)!

Since the event's humble beginnings in 2007, the Cleanup expanded from a small gathering of volunteers at Lake Hiawatha in Minneapolis to a creek-wide event stretching from near the headwaters in Minnetonka all the way to Minnehaha Falls. During its ten-year history, more than 7,500 volunteers collected nearly 20 tons of trash from around Minnehaha Creek and area lakes. Thank you to everyone who took part in this amazing event!

As we commemorate the 50th anniversary of the District's founding in 1917, we are planning a new slate of events across the watershed for community members to get out and help protect the lakes and streams they care about. We'll have more details soon at minnehahacreek.org/50.

MCWD
MINNEHAHA CREEK
WATERSHED DISTRICT

2016
YEAR IN REVIEW



Est. 1967

**MINNEHAHA CREEK
WATERSHED DISTRICT**

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Minnetonka, MN 55345

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