



Protect it. Pass it on.

MISSISSIPPI
WATERSHED
MANAGEMENT
ORGANIZATION

2015 Annual Activity & Financial Report





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**MISSISSIPPI
WATERSHED
MANAGEMENT
ORGANIZATION**

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2015 Annual Activity and Financial Report

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Annual Activity & Financial Report 2015

Mississippi Watershed Management Organization

Abstract

All metro-area watershed management organizations are required to annually submit an activity report, financial report and financial audit within 120 days of the end of the organization's fiscal year.

This report meets the requirements of the Metropolitan Water Management Act (MS 103B.231) and Minnesota Rules 8410.0150. The intent of an activity and financial report is to provide an annual snapshot or record of where this organization is in meeting its mission, goals and objectives, and what its goals and objectives are for next year. This record is important, not only to meet rule requirements, but also for future organization board and staff members to understand why past decisions were made and directions were taken.

Key components of the required reporting are:

- Budgets and expenditure information
- Annual workplan and evaluation of past workplan
- Status of local water management plan adoption
- Summary of monitoring data
- Permit and enforcement activity
- Status of wetland plans and banking

This report is organized by MWMO areas of expertise and activity. Due to its size, the [Annual Monitoring Report](#) is a separate document. A short summary is found in this document.

The workplan description is delivered at an area of activity or expertise level, rather than at an individual staff level. Individual workplans are adjusted quarterly to reflect and meet the ever-changing work environment of the MWMO, while areas of activity and expertise needs are driven by annual budget processes of the watershed and its members.

This report may be updated periodically throughout the year. The most recent version will be available on the MWMO's website at www.mwmo.org.

Table of Contents

Organizational Summary	1
Formation and History.....	1
Key Events in the History of the Organization.....	1
Vision and Mission Statements.....	2
Summary of 2015 Services and Operations	2
Board of Commissioners.....	3
Commissioners.....	3
Alternate Commissioners	4
Citizen Advisory Committee.....	5
CAC Positions	5
Staff	6
2015 MWMO Staff.....	6
Consultants.....	8
Accounting	8
Annual Fiscal Audit.....	8
Engineering.....	8
Payroll and Financial Services	8
Financial.....	8
Legal	8
Investing and Finance	8
Technology Provider	8
Other Service Providers.....	9
Achievements and Work Plan	10
Capital Project Grants.....	11
Purpose	11
Objectives	11
2015 Implementation	12
2016 Workplan.....	14
Communications and Outreach.....	15
Purpose	15
Objectives	15

2015 Implementation	16
2016 Workplan.....	22
Monitoring	24
Purpose	24
Objectives	24
2015 Implementation	25
2016 Workplan.....	28
Planning	30
Purpose	30
Objectives	30
2015 Implementation	30
2016 Workplan.....	31
Watershed Assessment	32
Purpose	32
Objectives	32
2015 Implementation	33
Joint Watershed Research Program.....	35
2016 Workplan.....	36
Financial Information	37
Policy	37
Budget	37

Annual Activity and Financial Report 2015

Organizational Summary

Formation and History

The MWMO encompasses 25,543 acres (39.9 square miles) of fully-developed urban lands and waters within the Minneapolis—Saint Paul metropolitan core area. The original members included the cities of Falcon Heights, Lauderdale, Minneapolis, Saint Anthony Village and Saint Paul, the Minneapolis Park and Recreation Board and the University of Minnesota.

Key Events in the History of the Organization

The first draft of the MWMO Plan was published in December 1986. The 1986 plan was prepared to meet the then-current Minnesota Chapter 509 requirements. The 1986 plan addressed surface water quality and quantity, land use and identified significant point and nonpoint source pollution in the MWMO. It also noted significant groundwater pollution problems from past industrial and commercial practices and storm sewer drainage, but was never approved by the Board of Water and Soil Resources (BWSR) or the MWMO Commission.

During second-generation planning (1997-2000, adopted in 2001), the MWMO acknowledged the limits of its member communities to incur additional financial expenses. Consequently, the MWMO developed strategies for new funding mechanisms. The MWMO sought inclusion on the list of Special Taxing Districts (MS 275.066) and, in 2001, the MWMO became the first joint powers WMO to receive an ad valorem levy authority necessary to implement plan goals and objectives. Falcon Heights and the University of Minnesota left the organization. In September of 2002, the MWMO hired its first two full-time staff members to implement the plan.

The current plan, approved in May 2011, uses information and data from past studies and actions to address a variety of issues deemed significant by the MWMO Citizen Advisory Committee (CAC), the MWMO Technical Advisory Committee (TAC) and the MWMO Board of Commissioners.

The Mississippi River is the MWMO's natural resource focus, nexus of the urban area we know as the Twin Cities. The river itself provides important water-based ecosystem advantages and facilitates many other beneficial activities and services, including: hydroelectricity; barge access; habitat, wildlife corridors and recreational water-related amenities; industrial, commercial and residential land uses; public drinking water; and stormwater and municipal wastewater discharge. Within the boundaries of the MWMO, surface water either flows directly overland or drains through pipes to the river. All groundwater generally flows toward the river as well.

The MWMO is one of several entities that has developed plans to address critical watershed issues within the MWMO. The MWMO believes coordination of these plans and the entities that drafted them are imperative to successful watershed management. The complex network of private and

public (federal, state, regional, municipal and local) agencies involved in water and natural resource management and land-use planning and development must work together to achieve mutual goals. To put financial and human resources to best use, land use and environmental policies, projects and programs stemming from those agencies must be implemented in a complementary, non-duplicative manner.

In 2011 Six Cities Watershed Management Organization was dissolved. The cities of Columbia Heights, Fridley and Hilltop became members of the MWMO in July 2012, joining the cities of Minneapolis, St. Paul, Lauderdale and Saint Anthony Village and the Minneapolis Park and Recreation Board. These entities entered into a new, revised joint and cooperative agreement (i.e., Joint Powers Agreement under MS Section 471.59) that now form the MWMO.

The MWMO Watershed Management Plan was amended to include the area of new cities. In 2014, the MWMO went through a staff reorganization to better meet the goals of the organization as it grows into a mature organization. Depending on the season, the MWMO may have up to 20 staff members across all employment categories—full-time employees, temporary or seasonal employees and interns.

Vision and Mission Statements

Vision Statement: To lead, to inspire, to act, to educate, and to create a shared vision for a river system with ecological integrity.

Mission Statement: To lead, and to foster stewardship of the watershed with actions that promote civic ownership and responsibility and through measures that achieve diverse and functional ecosystems.

Summary of 2015 Services and Operations

Number of Employees including seasonal and interns.....	18
Number of FTEs	14
FTE Average Length of Service	2.5 years
FTE Turnover Rate	7 percent
Total Levy Operating Revenue	\$1,530,000
Total Levy Capital Improvements & Program Revenue	\$3,945,000

Board of Commissioners

The governing body of the MWMO is its commission, which consists of seven voting commissioners. All appointments to the commission are made in accordance with Minnesota Statutes 103B.227 and Articles III and IV of the MWMO Joint and Cooperative Agreement. These statutes and articles together lay out the appointment process and powers of the Board of Commissioners of the MMWO.

Notices of all vacancies and appointments shall be published at least 15 days prior to filling a vacancy in a legal publication of the member's community seeking a commissioner. The council of each member shall appoint one commissioner to represent the member to the commission. Each commissioner shall serve until his or her successor is appointed.

Member councils may select and appoint alternates to the commission in the same manner as commissioners. In the absence of a member's commissioner, the designated alternate may vote and act in the commissioner's place. The alternate shall serve a term concurrent with the member's commissioner. The council of each member shall determine the eligibility and qualifications of its commissioner and alternate.

Commissioners

Commissioner Kevin Reich, City of Minneapolis, Chair
350 South 5th Street, Room 307, Minneapolis, MN 55415
612-673-2201

Commissioner Jim Saefke, City of Fridley, Vice-chair
2522 Marshall Street NE, Minneapolis, MN 55418-3329
612-746-4970

Commissioner Mary Gaasch, City of Lauderdale, Treasurer
2522 Marshall Street NE, Minneapolis, MN 55418-3329
612-746-4970

Commissioner Jerry Faust, City of Saint Anthony Village
3301 Silver Lake Road, St. Anthony, MN 55418
612-782-3301

Commissioner Scott Vreeland, Minneapolis Park and Recreation Board
2522 Marshall Street NE, Minneapolis, MN 55418-3329
612-746-4970

Commissioner Betty Wheeler, City of Saint Paul
2522 Marshall Street NE, Minneapolis, MN 55418-3329
612-746-4970

Commissioner Donna Schmitt, City of Columbia Heights
2522 Marshall Street NE, Minneapolis, MN 55418-3329
612-746-4970

Alternate Commissioners

Alternate Commissioner Randy Stille, City of Saint Anthony Village
3301 Silver Lake Road, Saint Anthony, MN 55418
612-782-3301

Alternate Commissioner Blong Yang, City of Minneapolis
350 South 5th Street, Room 307, Minneapolis, MN 55415
612-203-1459

Alternate Commissioner Steffanie Musich, Minneapolis Park and Recreation Board
2117 West River Road, Minneapolis, MN 55411
612-230-6443

Alternate Commissioner Matt Haas, City of Saint Paul
2522 Marshall Street NE, Minneapolis, MN 55418-3329
612-746-4970

Alternate Commissioner Linda Johnson, City of Hilltop
2522 Marshall Street NE, Minneapolis, MN 55418-3329
612-746-4970

Alternate Commissioner Dolores Varichak, City of Fridley
2522 Marshall Street NE, Minneapolis, MN 55418-3329
612-746-4970

Alternate Commissioner Jeffrey Dains, City of Lauderdale
2522 Marshall Street NE, Minneapolis, MN 55418-3329
612-746-4970

Citizen Advisory Committee

The MWMO Citizen Advisory Committee (CAC) meets at the request of the MWMO Board of Commissioners to assist in managing the water resources of the MWMO. The scope of responsibilities for the CAC include: reviewing funding proposals (Stewardship Fund Grants, Capital Improvement Projects, etc.), reviewing the MWMO's annual capital budget and participating in planning for the watershed. Other responsibilities may be assigned to the CAC by the Board of Commissioners as needed. The CAC provides review and feedback in the form of recommendations to the MWMO Board of Commissioners.

Applications are accepted year-round, and open positions are filled throughout the year. Applications submitted to replace incumbents are due by December 15th. Appointments are for one year and are renewable annually. Up to two at-large positions may be filled by people that live outside of the MWMO boundaries. All CAC members may be contacted through the MWMO office.

CAC Positions

Columbia Heights (one)

Open

Fridley (one)

Anne Wilkinson

Hilltop (one)

Open

Lauderdale (one)

Open

Saint Anthony Village (one)

Dan Miller

Saint Paul (one)

Open

Minneapolis (five)

Charlene Brooks.....Downtown

Nicole Menard.....North

Perry DeanNortheast

Craig LarsonSouth

Open.....Southwest

At-Large Positions (five)

P. Victor Grambsch.....Minneapolis

Jim RosenbergMinneapolis

Carol Hejl.....Minneapolis

Mark Apfelbacher.....Minneapolis

Open

Staff

The MWMO Board of Commissioners first hired staff in September of 2002. The Board of Commissioners first established, and now maintains, personnel policies and structures to attract and retain qualified personnel to implement MWMO activities.

This is accomplished by encouraging continual performance improvement through a well-administered training, salary and performance-review programs. In 2014, the Executive Director initiated a staff reorganization in order to meet the implementation activities needs of the organization. In addition to its own full-time employees, the MWMO shares employees with the City of Saint Anthony Village in the areas of human resources and financial management, and the MWMO hires part-time regular and seasonal employees and interns as needed to complete its annual plan of work.

2015 MWMO Staff

Executive Director

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Programs Principal

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Environmental Specialist

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612-746-4985

Environmental Specialist

Jen Keville

jkeville@mwmw.org

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Administrative Specialist

Administrative & Project Support

Max Dalton

mdalton@mwmw.org

612-746-4976

Water Quality Intern

Brittany Faust

bfaust@mwmw.org

612-746-4992

Water Quality Intern

Peter Swan

Water Quality Intern

Aileen Ziebrovski



Figure 1. MWMO staff in September 2015. (Not pictured: Tammy Schmitz, program specialist, stewardship and community outreach.)

Consultants

In accordance with Minnesota Statutes, section 103B.227, subdivision 5, the MWMO sends out requests for proposals for legal, professional and technical (engineering) and consultant services at least once every two years (in the fall of even numbered years). At its annual business meeting in January, the Board of Commissioners reviews and approves a list of approved consultants. The Board reserves the right to alter the list at any point in order to meet the needs of the organization.

The following is a list of organization that provided services to the MWMO in 2015:

Accounting

City of Saint Anthony
Village
651-782-3301
3301 Silver Lake Road
St. Anthony, MN 55418

Annual Fiscal Audit

HLB Tautges Redpath, Ltd.
651-426-7000
4810 White Bear Parkway
White Bear Lake, MN
55110

Engineering

Barr Engineering
952-832-2600
4700 West 77th Street
Minneapolis, MN 55435-
4803

Emmons & Olivier
Resources
651-203-6001
651 Hale Avenue North
Oakdale, MN 55128

HDR
763-591-5400
701 Xenia Avenue South
Suite 600
Minneapolis, MN 55416

Houston Engineering, Inc.
763-493-4522
6901 East Fish Lake Road
Suite 140
Maple Grove, MN 55369-
5400

Stantec
651-636-4600
2335 West Highway 36
St. Paul, MN 55113

Wenck Engineering
763-479-4201
1800 Pioneer Creek Center
P.O. Box 249
Maple Plain, MN 55359

WSB & Associates, Inc.
763-541-4800
701 Xenia Avenue South,
Suite 300
Minneapolis, MN 55416

Payroll and Financial Services

City of Saint Anthony
Village
651-782-3301
3301 Silver Lake Road
St. Anthony, MN 55418

Financial

Northeast Bank
612-379-8811
77 Broadway Street NE
Minneapolis, MN 55413

Multi-Bank Securities, Inc.
1000 Town Center, Ste. 2300
Southfield, MI 48075

Legal

Kennedy & Graven,
Chartered
612-337-9215
470 Pillsbury Center, 200 S
6th St.
Minneapolis, MN 55402

Investing and Finance

Ehlers and Associates
651-697-8553
3060 Centre Pointe Drive
Roseville, MN 55113-1105

Technology Provider

City of Roseville
Management Information
Services – Metro-INET
651-792-7092
2660 Civic Center Drive
Roseville, MN 55113

Other Service Providers

Ruth Murphy
442 Summit Avenue
Saint Paul, Minnesota
55102

Fortin Consulting
763-478-3606
215 Hamel Road
Hamel, MN 55340

MMC Associates
651-647-6816
1312 Portland Avenue
Saint Paul, MN 55104

**Saint Anthony Falls
Laboratory**
University of Minnesota
(612) 624-4363
2 Third Ave SE
Minneapolis MN 55414

WAM Enterprises, Inc.
952-920-9492
5207 Grandview Lane
Edina, MN 55436

Green Jeans Media
(612) 636-2073
1518 4th Street NE
Minneapolis, MN 55413

Achievements and Work Plan

The MWMO conducts an annual prioritization and selection of projects and activities based on available funding for capital project grants, planning initiatives, research and watershed studies, communication and outreach initiatives and monitoring. These projects and activities advance the organization's goals, strategies and implementation actions, while responding to changing resource conditions and financial constraints of the MWMO.

The MWMO also continues to seek out opportunities to collaborate and develop partnerships with other organizations to expand the reach of our and their activities, to leverage additional funds and to prevent duplication of services and project efforts within the Watershed.



Figure 2. MWMO staff conduct bathymetric mapping of the Mississippi River as part of a project to assess the ecological impact of the Upper St. Anthony Falls Lock closure. (See details on this effort in the Watershed Assessment section on page 32.)

Capital Project Grants



Figure 3. Workers install stormwater storage tanks next to the athletic field at Edison High School.

Purpose

The MWMO's capital project grants fund projects that protect and improve the water quality and ecosystem health of water resources within the MWMO watershed. These projects implement unique and innovative solutions for stormwater management in highly developed urban areas. They also develop community partnerships to build understanding, knowledge and initiative related to water, habitat, natural resource issues and solutions.

Objectives

- Encourage the use of new and innovative water management systems for energy, water supply and stormwater and waste water treatment and reuse.
- MWMO staff actively participates as members of the project team from ideation through design and implementation.
- Build the MWMO's CIP List for the years 2017 and beyond with opportunities to collaborate on capital projects that meet both MWMO and member organization goals.
- Strengthen our ability to reach key audiences by leveraging other MWMO activity areas.
- Leverage funding sources to acquire key parcels of land within the MWMO that will lead to establishment of water quality and habitat improvements.

2015 Implementation

The MWMO completed, entered into or continued agreements in 2015 or allocated capital funds for the following capital projects:

Jackson Pond

The City of Columbia Heights constructed Jackson Pond in 1965 as a means to control local flooding. The MWMO partnered with the city to co-fund a project to improve both the water-retaining and water-quality capabilities of the pond. An underground iron-enhanced filtration system reduces the amount of phosphorus discharged from the site. This project was constructed with estimated annual removals of 177 pounds of total phosphorus and 48,087 pounds total suspended solids.

LaBelle Park

Stormwater runoff from a 100-acre area in Columbia Heights drains into LaBelle Pond, the centerpiece of LaBelle Park. As part of a larger park improvement project, the MWMO provided funding to create filtration areas and stabilize the shoreline of LaBelle Pond, planting it with native vegetation that will filter some of the stormwater before it enters the pond and also provide habitat for area wildlife. This project was constructed with estimated annual removals of 3.33 pounds of total phosphorus and 1,667 pounds of total suspended solids.

Northeast Green Campus Phase II

A two-phase series of complementary projects to manage and reuse stormwater at Edison High School. Phase II will be completed in 2016, capturing runoff from the gymnasium roof and plaza and reusing it to irrigate the adjacent athletic fields and track. Stormwater monitoring will be established on both phases, and a water quality educational component will be included for students. The estimated average annual volume of water captured and reused is 962,000 gallons.

Columbia Heights Public Library

The Columbia Heights Public Library will be a highly visible new construction project creating a site that highlights stormwater treatment, allowing the topic to tie into the educational goals at the library. The MWMO's goal in participating in the project is to support the City in achieving those goals by bringing funds to support the stormwater and educational aspects of the project. The project was began construction in 2015 (slated for completion in 2016), and was designed for estimated annual removals of 2.79 pounds of total phosphorus and 581 pounds of total suspended solids.

Hawthorne Eco-Village

As part of a four block housing redevelopment project, MWMO funding will be used to construct several methods of stormwater capture and treatment, including reuse for irrigation, creation of an urban raingarden, and an underground filtration system. This project will be constructed in

2016 with estimated annual removals of 1 pound of total phosphorus and 364 pounds of total suspended solids.

Fridley Street Reconstruction

The MWMO provided a grant to the City of Fridley to fund improvements like water-absorbing bioswale bumpouts, boulevard raingardens and an underground stormwater treatment system at Summit Square Park. The project is also creating new opportunities for stormwater education, as the city is partnering with residents on managing the raingardens and bioswales. This project was constructed in 2015, continuing in 2016, with estimated annual removals of 26.37 pounds of total phosphorus and 4,787 pounds of total suspended solids.

Minneapolis Sculpture Garden

A new Minneapolis Sculpture Garden stormwater management system will capture stormwater as well as potable water overflow from the famous Spoonbridge and Cherry pond, allowing the water to be reused for irrigation for the entire garden and the adjacent ballfields. Native habitat will be incorporated into the garden as a new site amenity. MWMO staff have been participating in the project design to date, and the site will be constructed in 2016-2017. The project's estimated average annual volume of water captured and reused is 4.75 million gallons.

Prospect North District Stormwater (aka University Avenue District Stormwater, "Green Fourth")

This project is part of a larger redevelopment effort that seeks to establish an "Urban Innovation District." This district stormwater demonstration project to be constructed in 2016 will model the difference between a conventional stormwater system layer that provides a singular treatment and conveyance function and an integrated district stormwater system that manages stormwater as a valued resource and redesigns stormwater infrastructure at a net savings to public spaces.

Seward Commons (aka 24th and Snelling)

As part of a larger City of Minneapolis street reconstruction project, MWMO funding will be used toward boulevard infiltration and filtration areas to remove 90 percent of total suspended solids from the runoff of its contributing watershed. Originally slated for construction in 2015, the project has been delayed until 2016.

St. Anthony Regional Stormwater Treatment and Research Facility

An estimated 169 million gallons of polluted stormwater runoff will be captured and cleaned each year by this underground treatment and research facility near St. Anthony Village. The facility will treat an area that covers approximately 600 heavily urbanized acres. The system uses a combination of technologies to remove an estimated annual average of 176 pounds of total phosphorus and 78,000 pounds of total suspended solids.

Implementation Table	2014	2015	2016
CIP Budget	\$2,950,000	\$2,480,000	\$3,205,000
Grace Center Water Quality Improvements	\$200,000	--	--
Riverside Avenue Reconstruction	\$426,500	--	--
Hennepin County Interchange Project	\$500,000	--	--
MWMO Public Art and Signage	\$18,700	--	--
RL Stevenson School Ravine Restoration	\$75,600	--	--
Parade Ice Garden Greening Project in Parking Lot	\$6,650	--	--
Jackson Pond	--	\$795,000	--
LaBelle Park	--	\$236,000	--
NE Green Campus, Phase II	\$288,000	\$630,000	--
Columbia Heights Public Library	--	--	--
Hawthorne Eco-Village	--	--	--
Fridley Street Reconstruction	--	--	--
Minneapolis Sculpture Garden	--	--	--
Prospect North District Stormwater (aka Green Fourth)	--	\$300,000	--
Seward Commons (aka 24th & Snelling)	--	--	--
St Anthony Regional Treatment Facility	\$80,000	\$55,000	--
Land Conservation – 1828 Marshall St NE	--	\$361,000	--
Land Conservation – BNSF Railway Parcels	--	\$60,000	--
Land Conservation – 30-31st Ave N, 3101 Pacific St, and 50-31st Ave N	--	\$500,000	--
Land Conservation – 1822 Marshall Street NE	--	\$131,500	--
Land Conservation – 4020 ½ Washington Ave N	--	--	--

2016 Workplan

In 2016, the MWMO will help to finalize construction of the Northeast Green Campus (Edison High School), Columbia Heights Public Library, Prospect North District Stormwater System (Green Fourth) and the St. Anthony Regional Stormwater Treatment and Research Facility. New construction will begin on the Harbor Freight Pond, Minneapolis Sculpture Garden, and Hawthorne Eco Village.

Staff will also collaborate with member organizations to identify priority stormwater projects for the MWMO's future five-year capital improvement project schedule. The MWMO will work with private landowners to design and fund selected stormwater projects where there is a demonstrable public benefit.

Communications and Outreach



Figure 4. MWMO Executive Director Doug Snyder leads a tour of the MWMO's Stormwater Park and Learning Center at the Sept. 19, 2015, open house event.

Purpose

The MWMO's communications and outreach initiatives provide information, training, educational opportunities, financial resources and other services to promote community partnerships and good stewardship of water and natural resources.

Objectives

- Learn from and work with other groups and efforts.
- Provide services and products to inform and educate the watershed community using a variety of methods and media.
- Create and support opportunities for public participation and involvement.
- Collaborate with other professionals and networks to leverage funding and increase the reach and effectiveness of watershed education.
- Inform and educate land use decision-makers about the relationship between land use and natural resource protection/conservation.

- Develop cultural competencies to directly reach diverse communities of the MWMO.
- Provide training and certificate programs for the evaluation, development and use of new technologies and management practices.
- Promote and host workshops and training opportunities for MWMO staff, staff of member organizations and other entities involved in water resources management.
- Support and promote local stewardship initiatives, community leadership and citizen involvement.
- Create demonstration sites to inform and educate the watershed community
- Build support for MWMO efforts through grassroots initiatives
- Develop partnerships between the MWMO and communities

2015 Implementation

The MWMO carried out the following communications and outreach activities in 2015:

Columbia Heights Outreach

As part of MWMO community outreach, several efforts were focused on the city of Columbia Heights, as one of the MWMO's newer members. MWMO staff were interested in learning more about these residents' needs and interest in protecting water quality to inform future planning.

Community Outreach

The MWMO exhibited in 43 different community-initiated events. Exhibits offered visitors a range of information about actions they could take to protect water quality and resources to empower them. During some of these events, visitors made bottles of eco-friendly cleaners at the exhibit table. Over this time period, residents made approximately 600 bottles of eco-friendly cleaners for home use. To support the continued use of eco-friendly cleaners, refill stations are located in five locations in the watershed, including one at the MWMO community facility. The Mississippi River Green Team and MWMO interns were trained to staff the table at events, giving the youth and interns an opportunity to gain community outreach and public presentation skills.

In addition to participating in community events, MWMO staff met with 15 youth groups to facilitate other, youth-specific outreach events.

Edison High School IB Biology

The MWMO worked with Edison High School during the spring to incorporate stormwater education into the classroom. The students analyzed the tree trench system in the school's parking lot as part of their Group 4 project for IB Biology. The students learned how water quantity and quality is monitored at the site. The site is designed to demonstrate to the students

and the larger community the importance of managing stormwater runoff and its implications on an ecosystem.

Greening Teen Teamworks

Greening Teen Teamworks provides water quality education to the Minneapolis Park and Recreation Board's Teen Teamworks summer youth employment program. Working through Teen Teamworks provides repeated contact with a hard-to-reach audiences and practical opportunities to use their knowledge to protect clean water. Greening Teen Teamworks encourages crews to take action to improve water quality at their park work sites. Educators worked with the Teen Teamworks crews four times over the course of the summer and reached approximately 200 youth.

Joint Communications Planning

The MWMO conducted joint communications planning with Capitol Region Watershed District and Ramsey-Washington Metro Watershed District in 2015. Principals from each organization met several times and worked with a consultant throughout the course of the year to draft a joint communications plan, with the goal of sharing resources and finding cost efficiencies between the three watersheds. The process concluded in late fall and all three watersheds agreed to continue pursuing a number of joint initiatives, including crisis communications planning and media training, in 2016.

Metro Children's Water Festival

MWMO staff assisted in planning and conducting this festival, a day-long learning event about water for fourth-graders, in September. The MWMO also created and staffed a water footprint station in the arcade. The event was not attended by any class from the MWMO this year; schools are chosen by a lottery system, and only a limited number of classes from each of seven counties are invited.

Mississippi River Green Team

This conservation-focused, youth employment program completed its seventh year. It involved 14-17 year-olds from North and Northeast Minneapolis in a two-year, mentored job experience. In 2014, the 17 MRGT members planted native species of plants in Minneapolis, removed hundreds of pounds of invasive plants from city parks and continued a dragonfly monitoring protocol on the Mississippi River at multiple sites. Being on the MRGT also provided the opportunity to learn about environmental careers and acquire new skills. The MRGT is a special environmental unit of Teen Teamworks. The program is made possible through a partnership between the MWMO and the Minneapolis Park and Recreation Board.

Newsletter

The MWMO released two issues of its newsletter, *The Drift* — one in May and another in December. The newsletters were distributed electronically via the MWMO's website, social media channels and email list.



Figure 5. The backyard of the MWMO's Stormwater Park and Learning Center, as viewed from the Lowry Avenue Bridge in 2015.

Stormwater Park and Learning Center

The MWMO hosted the *Minneapolis Satellite Reef*, part of the worldwide *Crochet Coral Reef* project created by the Institute For Figuring, in partnership with the Minneapolis Institute of Art from August to November. The exhibit received more than 1,300 coral contributions and approximately 480 unique visitors.

Several new permanent exhibits were installed at the Stormwater Park and Learning Center, including a watershed floor map, interactive digital kiosks, a digital globe and outdoor interpretive signage. In addition to permanent exhibit installations, the building hosted a portion of the Bell Museum's Sustainable Shelters exhibit.

The MWMO hosted an open house event in September 2015 to mark the completion of the exterior landscape features and backyard. It drew approximately 350 visitors and received coverage in local TV, radio and newspapers.

Photos and Videos

The MWMO increased its capacity for photo and video production in 2015 by hiring a full-time communications principal and by purchasing new camera equipment and editing software. A system of cataloging photos was implemented, allowing staff to more easily find and access material from the MWMO's growing library of photos, which now numbers in the tens of thousands. The MWMO expanded its use of photo and video in social media, and chose to make photography a central element of its new website design.

The MWMO completed several new videos in 2015, including three professionally produced videos and at least nine internally produced videos. The MWMO also contracted with a designer to develop MWMO-branded motion graphics templates, with the goal of ensuring consistent branding and graphic standards for both internal and external video productions. MWMO videos earned nearly 3,900 views on YouTube and more than 3,300 views on Facebook in 2015. The MWMO also began posting short (less than 30-second) videos on Twitter.

Professional Workshops and Trainings

The MWMO sponsored and facilitated trainings on turfgrass maintenance and winter maintenance with reduced environmental impacts. More than 125 winter and summer maintenance professionals, property owners and supervisors in the public and private sectors attended a total of three trainings held in 2015. These trainings are a part of a voluntary maintenance certification program through the Minnesota Pollution Control Agency and were subsidized by a PCA/EPA 319 grant.

Seasonal Lawncare Video

In order to reach a seasonal worker audience that does not attend the full-day workshops noted above, a video for seasonal workers was created. The video describes lawn and yard care activities that seasonal workers engage in and how they can make choices that reduce environmental impacts from these activities. The video is available on YouTube and shared with established contractor connections to provide seasonal workers with relevant pollution prevention information.

Social Media

The MWMO is active on Twitter, Facebook, Instagram, YouTube and LinkedIn. During 2015, the MWMO saw consistent growth in both the volume of its social media audience as well as their level of engagement. The MWMO more than tripled its Facebook audience from 181 page likes to 543 page likes, and also gained 187 new Twitter followers (for a total of 511). It also launched a LinkedIn page and an Instagram feed. A small amount of paid social media advertising was conducted (via Facebook) to augment and enhance organic levels of engagement and to boost attendance at a number of events.

Spark-Y Youth Interns

The MWMO partnered with Spark-Y Youth Action Labs to host four interns over the summer who designed and built a hydroponic garden demonstration system for the rooftop garden. The intent of the internships was to 1) introduce real-world applications of sustainability, entrepreneurship, construction, science and math, and 2) increase job experience and environmental knowledge through local action.

Stewardship Fund Grants

MWMO Stewardship Fund Grants provide financial assistance to community-led projects and education efforts to improve and conserve water and natural resources in the watershed.

Financial assistance is provided through three types of Stewardship Fund Grants. Mini Grants offer up to \$3,000 in funding for short-term or smaller-scale water quality projects. Planning Grants offer up to \$10,000 in funding to plan projects that are significant in scope and cost. These grants are used to assess the potential success of a project or develop the details required to make a project actionable. Action Grants offer up to \$50,000 in funds for the implementation of fully-designed projects, significant in scope and cost.

All proposals are reviewed by MWMO staff. Planning and Action Grants are also reviewed by the MWMO Citizen Advisory Committee and approved by the MWMO Board of Commissioners.

Grants are awarded based on a project's ability to:

- ***Develop partnerships with community organizations.***
Projects create partnerships and build community understanding with organizations and people wanting to proactively engage in clean water issues, demonstrate new methods, and extend the MWMO's ability to protect clean water and improve water quality, and protect and restore habitat and natural resources through building community knowledge and stewardship.
- ***Protect or improve the quality of water, habitat, and natural resources.***
Projects reduce pollution entering our streams, wetlands, lakes, river and groundwater, and projects that prevent flooding, lessen the effects of drought, retain water on site and/or restore and maintain habitat.
- ***Build community understanding, knowledge, and initiative related to water, habitat, and natural resource issues and solutions.***
Projects engage and educate people in the community about water quality issues. These projects will result in awareness of water issues and changed behaviors that protect water. Organizations receiving grants will increase their ability to lead and promote clean water efforts.

Note: Stewardship Fund Grants may be used to create new external programs, but are not intended to sustain ongoing efforts. Projects must benefit people who live, learn, and/or work in or near the MWMO watershed. Physical projects must also lie within the MWMO watershed boundaries or drain to receiving water bodies within the watershed.

In 2013, the Stewardship Fund program was temporarily suspended. Third party evaluation and restructuring of the program occurred in 2014. Existing projects continued while the evaluation was being completed. Grant proposals were accepted again in 2015 when this area of expertise re-opened. One change in the restructured program is that fall Mini Grant awards were eliminated from Stewardship Fund cycles.

Stewardship Fund Grants	2014	2015	2016
Total no. awarded (no. proposed)	18 (46)	--	22 (44)
Mini Grants	13 (26)	--	15 (32)
Spring	6 (12)		9 (17)
Summer	7 (14)		6 (15)
Fall	0 (0)		--
Planning Grants	4 (11)	--	6 (9)
Action Grants	1 (9)	--	1 (3)

Three Rivers Park District Internships

The MWMO supported two internships at North Mississippi Regional Park Carl W. Kroening Interpretive Center. Graduates of the Mississippi River Green Team held these positions. The intent of the internships was: (1) to increase capacity of park staff to reach diverse constituents with education about water, the Mississippi River and pollution prevention behaviors; and (2) to increase job experience and environmental knowledge of Mississippi River Green Team alumni by providing a second, paid job in an environmental field during high school.

Website Redesign

In 2015, the MWMO initiated a process to design and launch a new website. After conducting an internal needs assessment in June, the MWMO put out a request for proposals for a vendor to design and develop the website. Identified priorities for the new site included improved navigation and accessibility, responsive (mobile-friendly) page designs, a content management system, project pages and a “Find Your Watershed” web application. MWMO staff reviewed a total of 13 submitted proposals and selected a vendor in September.

The project formally kicked off in November. User research was performed jointly by the MWMO and the contractor. The project was scheduled to proceed in six phases: (1) Strategy; (2) User Research and Information Architecture; (3) Design; (4) Development; (5) Quality Assurance/Quality Control; and (6) Launch. The first three phases were successfully completed in 2015.

Implementation Table	2014	2015	2016
Communications, Outreach and Stewardship Fund Budget	\$750,000	\$150,000	\$500,000
Stormwater Park and Learning Center	--	\$161,770	--
Greening Teen Teamworks	\$7,230	\$15,990	--
Mississippi River Green Team	\$26,720	\$12,160	--
Professional workshops and trainings	\$7,370	\$3,800	--
Workshops for local officials, policymakers and community leaders	\$500	\$3,500	--
Three Rivers Park District	\$2,200	\$5,640	--
Spark-Y Youth Action Labs	--	\$2,800	--
Cable TV Version about Lawncare (for residents)	\$21,960	--	--
Lawncare Video (for seasonal workers)	--	\$21,140	--
Neighborhood and Community Outreach	\$6,260	\$1,680	--
Children's Water Festival	\$200	\$100	--
Communications, public relations, graphics, and design	\$5,750	\$16,380	--
Stewardship Fund Evaluation	\$5,560	--	--
Stewardship Fund Mini Grants	\$9,980	\$22,610	--
Stewardship Fund Planning Grants	\$14,890	\$30,740	--
Stewardship Fund Action Grants	\$9,300	\$50,000	--

2016 Workplan

- Columbia Heights outreach will continue into 2016 to assist the MWMO in planning messaging that engages various Columbia Heights audiences in clean water activities. Results from a collaborative study completed by the University of Minnesota will inform some of this work.
- Outreach at community events will continue, offering residents resources and opportunities to make eco-friendly cleaners.
- The MWMO will continue to fund Stewardship Fund Mini Grants, Planning Grants and Action Grants.
- Increased efforts will be made to recruit Citizen Advisory Committee members.
- A framework for utilizing volunteers at the MWMO will be developed.
- The MWMO will host the Master Water Stewards program to certify and support community leaders.
- The MWMO will host a fiber art exhibit that will be on display throughout the year, beginning with Art-A-Whirl 2016.

- The MWMO will host other science and art exhibits including “Watershed,” a frozen river sculpture.
- Additional exhibits will be permanently installed at the Stormwater Park and Learning Center.
- The Mississippi River Green Team will enter its eighth year, with expanded support and partnerships.
- The MWMO will work to strengthen youth outreach and education within MWMO activity areas and create place-based stewards of water resources.
- MWMO will work with Three Rivers Park District naturalists to develop and implement a Stormwater Park and Learning Center lesson plan that will be offered to formal and informal youth groups.
- MWMO will work with Saint Thomas University for their Sustainable Communities Partnership program.
- The MWMO will finalize and launch its redesigned website.
- New document templates will be developed to ensure consistent use of MWMO graphic standards. Staff will be trained in on use of the new templates, including how to produce documents in a way that ensures compliance with ADA standards.
- The MWMO will implement a content strategy using blog posts, email campaigns and social media outreach to reach key audiences with MWMO stories and messaging.
- The MWMO will begin publishing a monthly email newsletter with news, events and announcements. It will also continue sending periodic email announcements about specific initiatives, events, etc.
- The MWMO will publish at least one issue of its printed newsletter, *The Drift*.
- The MWMO will participate in a planned metro-wide communications campaign led by Watershed Partners. The effort will engage homeowners on best practices to prevent pollution from stormwater runoff.
- An annual communications survey will be implemented to help gauge strengths, weaknesses and opportunities for the MWMO’s communications and outreach initiatives.

Monitoring



Figure 6. MWMO Intern Brittany Faust checks water quality indicators in the Mississippi River.

Purpose

The MWMO's water quality monitoring efforts provide a scientific basis for identifying and tracking water quality and quantity issues, and to provide information to aid in the selection of projects and evaluate the success of those projects.

The MWMO is charged with protecting water quality within the watershed, pursuant to Minnesota Statutes Chapter 103B.201 and Minnesota Rules Chapter 8410.003, which established a Joint Cooperative Agreement among the MWMO's member organizations. Minnesota Rules Chapter 7050 requires that all water bodies comply with water quality standards. Furthermore, section 303d of the Federal Clean Water Act requires states to develop total maximum daily loads (TMDLs) for waters with impaired uses.

Objectives

- Monitor biological, chemical and physical parameters of surface and groundwater resources in the watershed.
- Monitor water quality within the watershed.
- Develop a record of baseline data to characterize water quality and identify pollutants that exceed water quality standards.

- Assess pollutants listed on the Minnesota Impaired Waters list for the TMDL process.
- Collect rate and volume data for the Mississippi River and key subwatersheds.
- Monitor performance of stormwater management practices.
- Collaborate with stakeholders to identify and apply a standardized data collection and assessment approach.
- Develop partnerships and collaborate with other organizations and/or agencies both inside and outside the watershed boundaries to improve water quality in the Mississippi River.
- Assess land use impacts on water quality.
- Participate in the technical development and update of statewide monitoring databases.
- Make data accessible to the public and public entities and to MWMO staff for use as an education tool (e.g., best-management-practice performance data).
- Develop emergency monitoring plan in case of emergencies affecting water resources.

2015 Implementation

In 2015, new monitoring initiatives included the installation of flow monitoring stations in upstream portions of the 1NE and 11CHF pipesheds. Data from these stations was used to inform calibration of hydrologic and hydraulic (H&H) models being developed for each pipeshed. MWMO monitoring staff also assisted University of Minnesota and Minneapolis Riverfront Partnership staff with macroinvertebrate and river sediment data collection for a Legislative-Citizen Commission on Minnesota Resources-funded project investigating potential long-term changes in the Mississippi River following the closure of the Upper St. Anthony Lock.

The following is a list of work plan accomplishments for the year 2015:

- Completed the 2014 Annual Monitoring Report.
- Completed the initial pollutant loading calculations for the stormwater outfall sites.
- Collected precipitation data from five locations using heated precipitation gauges, two locations using non-heated gauges, and an additional non-heated gauge that is operated by a citizen volunteer.
- Continued to look for opportunities to expand the precipitation monitoring network using heated precipitation gauges and citizen precipitation recorders.
- Continued to monitor five stormwater sites using automatic samplers. The 2NNBC site was monitored by grab sampling when there was positive flow from the tunnel to the river. The

7LSTU site was monitored by automated or grab sampling depending on the presence of tailwater in the outfall.

- Continued monthly monitoring of three Kasota Ponds wetlands in St. Paul.
- Monitored seven sites on bi-weekly basis on the Mississippi River and seven stormwater sites for *E. coli* and submitted the data to the MPCA.
- Continued collecting water level data using a water level troll at the 2NNBC site to continuously monitor the water from the Old Bassett Creek tunnel to the Mississippi River.
- Prepared and signed a professional services agreement with Anoka Conservation District to coordinate water level monitoring for Sullivan Lake.
- Shared MWMO data through the MPCA's EQuIS database, the MWMO's annual monitoring report and data requests.
- Developed a new contract with St. Anthony Falls Hydraulic Laboratory (SAFL) at the University Of Minnesota to provide technical support for real-time monitoring data network and other projects.
- Completed testing of low-flow and high-flow area velocity sensors in laboratory conditions at SAFL to verify the accuracy of measurements.
- Continued working on developing monitoring protocols for the Mississippi River through monitoring for hydraulic mixing and collecting data at five cross-sections on the river.
- Continued to sample the Mississippi River at six locations for water quality analysis and added two sampling locations.
- Collected bathymetry data from the Upper St. Anthony Falls to Minneapolis Port section of the Mississippi River, right before the closure of Upper St. Anthony Falls Lock and Dam.
- Developed a new contract with the City of Minneapolis to continue assisting with their illicit discharge monitoring program and enhance their spill response activities.
- Continued to work with the MPCA on the Upper Mississippi River Bacteria TMDL Project and the Twin Cities Metro Area Chloride TMDL Project.
- Continued to work with the City of Minneapolis Health Department' staff to enhance their erosion and sediment control inspections program by providing funding to support two summer internships.
- Continued to work with the MWMO member cities and MWMO staff to assess monitoring needs and assist in developing additional monitoring plans for stormwater monitoring and lake monitoring.

- Worked with the Public Works Department staff from the City of Fridley and projects and outreach director from MWMO to install flow monitoring devices at two different locations in the 11CHF monitoring site sub-watershed to collect water depth and flow data to enhance the calibration of a hydrologic and hydraulic (H&H) model.
- Installed flow monitoring devices at three different locations in the 1NE monitoring site sub-watershed to collect water depth and flow data to enhance the calibration of a hydrologic and hydraulic (H&H) model.
- Continued to work with Capitol Region Watershed District water quality monitoring staff to collaborate on monitoring work and confined-space entry training.
- Collaborated with the Minneapolis Riverfront Partnership on the Legislative-Citizen Commission on Minnesota Resources (LCCMR)-funded grant to assess the ecological impacts of the St. Anthony Falls Lock Closure.
- Collaborated with Department of Bio-products and Biosystems Engineering at the University of Minnesota to provide training in water resources monitoring for visiting scientists from Mizoram University in northeastern India.
- Submitted abstracts, wrote technical papers, and presented papers titled “Water Resources Monitoring for an Urban Watershed” and “Integrated Watershed Management in a Highly Urbanized Setting” at the Eighth International Perspective on Water Resources and the Environment conference held from Jan. 4-6, 2016, in Colombo, Sri Lanka.

Details for the monitoring program and data results are provided in the MWMO’s 2015 Annual Monitoring Report, which is available on the MWMO’s website at mwmno.org. For more detailed information on this program, please contact MWMO Water Resources Manager Udai Singh.

Implementation Table	2014	2015	2016
Monitoring Budget	\$100,000	\$140,000	\$150,000
Bathymetry Project	\$3,500	--	--
LCCMR Project	--	--	--
Capital equipment (Site 11CHF)	\$12,950	--	--
Minneapolis Illicit Discharge Monitoring	\$1,360	\$478	--
Laboratory Analysis (2015 includes analyses done in 2014)	\$116,670	\$114,952	--
Sampling Equipment	\$17,960	\$18,097	--
Confined Space Entry Training	\$1,315	\$509	--
Real-time Data Management Agreement with SAFL	\$13,855	\$13,331	--

2016 Workplan

The 2016 work plan for the MWMO's monitoring program includes:

New Monitoring Initiatives for 2016

- Purchase necessary monitoring equipment and instrument St. Anthony Regional Stormwater Treatment and Research System for evaluating the effectiveness of the innovative treatment technologies.
- Support Capital Project Grants implementation team to instrument the Edison High School Phase II stormwater harvesting and reuse project at the Edison High football field and concession stand.
- Instrument the MWMO Stormwater Park and Learning Center's outdoor best management practices to monitor the effectiveness of the practices and use the instrumented facility for education and outreach.
- Support the MWMO and City of Minneapolis's H&H modeling effort by collecting flow monitoring data for specific subwatersheds.
- Purchase and become trained in on new monitoring database software (Kister's WISKI). Begin implementation of new data management system, including migration of all historical data to the new database.
- Conduct biological surveys at the Kasota Ponds wetlands.

Ongoing Monitoring Efforts

- Complete the 2015 Annual Monitoring Report by March 31, 2016.
- Continue to work with the MWMO member cities to assess their monitoring needs and assist in developing additional monitoring plans for stormwater monitoring and lake monitoring.
- Continue to look for opportunities to expand the precipitation monitoring network using heated precipitation gauges and citizen precipitation recorders.
- Continue to monitor six stormwater outfall monitoring sites using automated samplers. The 2NNBC site will be monitored by grab sampling when there is positive flow from the tunnel to the river. The 7LSTU site will be monitored by automatic or grab sampling depending on the presence of tailwater in the outfall.
- Continue monthly monitoring of the Kasota Ponds wetlands in St. Paul.
- Continue biweekly monitoring of seven sites on the Mississippi River and seven stormwater sites for *E. coli* and submit the data to the MPCA.

- Continue development of monitoring protocols for the Mississippi River.
- Continue to sample the Mississippi River at eight locations for water quality analysis.
- Finalize the bathymetry data for the Mississippi River that was collected in fall 2014 and summer 2015 and collect additional bathymetry data in summer 2016.
- Continue working on pollutant loading calculations for the stormwater outfall sites.
- Continue to work with the MPCA on the Upper Mississippi River Bacteria TMDL Project and the Twin Cities Metro Area Chloride Project.
- Continue to work with the City of Minneapolis Health Department staff to enhance their erosion and sediment control inspections program.
- Share MWMO data through the MPCA's EQuIS database, the MWMO's annual monitoring report, and data requests.

Planning

Purpose

Planning provides direction to the MWMO's activities. Our planning efforts clarify and integrate the MWMO's goals, responsibilities and future courses of action. Through planning, we coordinate implementation of MWMO standards and goals by member organizations, and maintain involvement with Mississippi River regional working groups.

Objectives

- Develop and maintain MWMO role in water management.
- Keep the MWMO's Watershed Management Plan current to address new circumstances and changing priorities.
- Develop plans for new watershed initiatives.
- Review and approve local management plans and amendments that impact water and natural resources.
- Develop consensus among stakeholders for managing resources in the watershed.
- Work with member organizations on the implementation of ordinances, standards, plans and enforcement.
- Participate in regional working groups for protection and improvement of the Mississippi River.

2015 Implementation

The MWMO contributed as part of the Project Advisory Team for the Minneapolis Park and Recreation Board's Ecological System Plan. The 2015 amended version of the MWMO's Watershed Management Plan was completed by May 12, 2015. The MWMO advanced to final design and finalized a "Green Fourth" district stormwater system contract between landowners and the MWMO in 2015.

Implementation Table	2014	2015	2016
Planning Budget	\$0	\$55,000	\$50,000
Central Corridor Plan	\$25,520	Closed	--
2015 Plan Amendment	\$49,760	\$9,770	--
Prospect North Partnership Stormwater Planning	\$2,200	\$25,700	--
Ecological Services Plan	\$0	\$14,590	--

2016 Workplan

The MWMO will continue to contribute as part of the Project Advisory Team for the Minneapolis Park and Recreation Board's Ecological System Plan. The MWMO will be finalizing an after-action report that captures lessons learned during the planning of the "Green Fourth" district stormwater system. The MWMO will be amending the Capital Schedule in its Watershed Management Plan and meeting with member organizations on the content of their LWMP's.

Watershed Assessment



Figure 7. Minneapolis Riverfront Partnership Executive Director Kathleen Boe and MWMO Environmental Specialist Brian Jastram prepare to conduct macroinvertebrate sampling on the Mississippi River in October 2015.

Purpose

The MWMO's watershed assessment and research activities seek to develop a scientific base of knowledge that characterizes physical, chemical, cultural, historic, biological, social, economic, organizational and political resources of the MWMO to guide planning and management decisions in the watershed.

Objectives

- Conduct assessments within the watershed to define the ecological, physical, biological, cultural, social, economic, organizational and political characteristics of the MWMO.
- Conduct project-based diagnostic and feasibility studies.
- Provide information to support other MWMO projects and activity areas.
- Provide watershed information to organizations both inside and outside the MWMO's boundaries.

2015 Implementation

The MWMO completed or began the following watershed assessments in 2015:

Assessing Ecological Impact of St. Anthony Falls Lock Closure

The U.S. Congress passed a bill to close the Upper Lock on the Mississippi River at St. Anthony Falls in Minneapolis. The lock was closed in June 2015. The Minneapolis Riverfront Partnership (MRP) submitted a proposal to Legislative-Citizen Commission on Minnesota Resources (LCCMR) to assess the ecological impacts of the Upper St. Anthony Falls Lock Closure. The MWMO partnered with MRP and provided a 25 percent match to fund the project.

Project activities include the followings: baseline measurements of physical, chemical and biological conditions of the river corridor between Coon Rapids Dam and Lock and Dam #1; evaluation of the data, establishing criteria for select indicators to track changes in the river over three to five years or longer time period; and sharing the data with those interested in the ecology of the river and riparian corridor.

The MWMO collected the bathymetry data for the river in fall 2014 and just prior to the closer of the lock and dam in June 2015. MWMO is also monitoring water quality of the Mississippi River between Coon Rapids Dam and Lock and Dam #1. The total budget for this project was not to exceed \$75,000. The 25 percent match to the LCCMR fund was \$31,250. A total of \$12,500 was paid to MRP in 2015.

Green Fourth Feasibility Study

In December 2014, the MWMO initiated a stormwater feasibility study focused on designing a more efficient District Stormwater System. This feasibility study identified potential cost savings via district stormwater management and agreements were made with the private landowners to redirect a portion of these savings back into additional stormwater treatment, storage of stormwater for irrigation, grey water reuse and habitat improvements.

An after-action report is currently underway so similar future projects will benefit from lessons learned on this project. This project will be closed in 2016.

Green Fourth Report

As a result of the Boeser site desktop study conducted in 2013 and the Central Corridor planning work, the MWMO initiated the Green Fourth Report in 2013 to evaluate a district systems approach to stormwater along Fourth Street SE as it redevelops. This study was completed in December 2014, with a final payment in January 2015.

Harbor Freight Pond Feasibility Study

The City of Hilltop is home to a small holding pond called Harbor Freight Pond which temporarily stores water from a 32.2-acre drainage area. The existing pond does not improve water quality due to years of sedimentation impacts on slope and capacity. During the feasibility study process, project engineers considered several design modifications, ultimately recommending the construction of an expanded basin to provide additional storage volume and depth, allowing for significant water quality improvements. It is anticipated that construction will take place in 2016, and will provide an approximately 62 percent reduction in total suspended solids and 30 percent reduction in total phosphorus.

MWMO Potential Limitations to Infiltration

In 2014, the MWMO started a general mapping of potential limitations to infiltration within the MWMO boundaries. The mapping and identified potential limitations are intended to inform the MWMO's general planning and water resources management efforts. The study was completed in 2015 and the Potential Limitations to Infiltration map has been included in the 2015 amended version of the MWMO's Watershed Management Plan.

New Cities Expansion: Supplemental Historic Waters Study

In 2014, the MWMO completed a supplemental Historic Waters Study that covers the cities of Fridley, Columbia Heights and Hilltop to better inform the assessment portion of the MWMO's 2015 Plan amendment.

Nicollet Island Feasibility Study

In April 2014, the MWMO initiated a technical investigation, concept design and an approximate cost estimate for stabilization and restoration of Nicollet Island's riverbank. The study was completed in 2015.

Old Bassett Creek Tunnel Water Reuse and Water Quality Improvement Project Feasibility Study

The Old Bassett Creek Tunnel Water Reuse and Water Quality Improvement Project Feasibility Study was undertaken in 2015 to assess the potential for the Old Bassett Creek Tunnel to serve as a stormwater storage, treatment and reuse facility. A secondary objective of the study was to evaluate the feasibility of removing the sediments already settled in the tunnel and the need for structural improvements that include design, construction and maintenance costs for the subsequent removal of sediments settled in the tunnel.

Watershed-Scale Hydrologic/Hydraulic and Water Quality Models

The MWMO is undertaking a major initiative to create detailed hydrology and hydraulic (H&H) and water quality models across our jurisdiction. The H&H models are being used to simulate and inform the management of flooding throughout the MWMO, while the water quality models are used to estimate pollutant loading from the landscape and into MWMO waterbodies.

Results of the modeling initiative will be used to help the MWMO and our member communities to better understand the functioning of our stormwater systems, as well as prioritize the placement and design of future capital projects.

The MWMO is divided into multiple project areas for this effort. The following areas had modeling projects ongoing in 2015.

- 1NE Watershed: a 2,000-acre watershed containing portions of Northeast Minneapolis, southern Columbia Heights and Fridley. The MWMO led a project to create both H&H and water quality models of this area.
- 11CHF Watershed: a 2,057-acre watershed containing portions of southern Fridley, Hilltop and portions of Columbia Heights.
- S NE Minneapolis Watershed: a 1,668-acre watershed in the southern portion of Northeast Minneapolis. The MWMO is working with the City of Minneapolis to create an H&H model of this area.
- Northern Tributary to the Northern Inlet of the 35W Tunnel: a 1,442-acre watershed containing the MWMO portion of the City of Saint Anthony Village and roughly 600-acres within the City of Minneapolis; the MWMO is working with the City of Minneapolis to create an H&H model of this area.
- North Minneapolis Region: a 7,500-acre portion of North Minneapolis. The MWMO is working with the City of Minneapolis to create an H&H model of this area.

Westminster Reuse Feasibility Study

Westminster Presbyterian Church is located in Downtown Minneapolis, covering one entire city block between Nicollet Mall/Marquette Avenue and Alice Rainville Place/12th Street. The Church is undertaking a multi-pronged campaign to expand its historic building and to develop significant new green space surrounding the church. Results of the feasibility study include a system that's designed to capture and reuse more than 120,000 gallons of stormwater runoff on an average annual basis, reducing the need for potable water use.

Joint Watershed Research Program

Baseflow Restoration in Minnehaha Creek Watershed with Stormwater Infiltration

The objectives of this research project were: (1) to investigate the surface water-groundwater interaction and develop the background information necessary to estimate the impact of infiltration on the baseflow of Minnehaha Creek; (2) to determine the direction of groundwater flow and the contribution of various sources of flow to baseflow in Minnehaha Creek; (3) to estimate the impact of increased baseflow that can occur in Minnehaha Creek with implementation of infiltration practices; and (4) to determine the approximate cost of implementation. The final report for the project was submitted in 2015.

Implementation Table	2014	2015	2016
Watershed Assessment and Research Program Budget	\$200,000	\$290,000	\$800,000
Fridley Tree Inventory	\$6,870	--	--
New Cities Expansion: Supplemental Historic Waters Study	\$15,085	\$2,695	--
Green Fourth Report	\$12,240	\$4,910	--
Green Fourth Feasibility Study	--	\$36,000	--
LaBelle Park Water Quality Improvement Feasibility Study	\$6,050		--
Nicollet Island Feasibility Study	\$44,000	\$9,700	--
MWMO Potential Limitations to Infiltration	\$22,540	\$2,635	--
Vikings Stadium Plaza Stormwater Feasibility Study	\$21,900		--
Old Bassett Creek Tunnel-Water Reuse and Water Quality Improvement Project Feasibility Study	--	\$15,959.23	--
Baseflow Restoration in Minnehaha Creek Watershed	--	\$15,959.23	--
Jackson Pond Feasibility Study	\$13,600	\$14,000	--
Harbor Freight Pond Feasibility Study	--	--	--
Westminster Stormwater Reuse Feasibility Study	--	--	--
1NE Watershed H&H and Water Quality Modeling	\$166,821	\$33,160	--
11CHF Watershed H&H and Water Quality Modeling	--	\$135,406	--
S NE Minneapolis H&H Modeling	--	--	--
Northern Tributary to the Northern Inlet of the 35W Tunnel H&H Modeling	--	--	--
North Minneapolis H&H Modeling	--	--	--

2016 Workplan

The MWMO will complete the after-action report associated with the Green Fourth district stormwater system project in 2016.

In 2016, the MWMO is considering the following recommendations from the Nicollet Island feasibility study: for three years monitor the elevation flux of the bench and the horizontal flux of the bank and monitor the spatial stability of the channel and the bench adjacent to the Island's toe. Also, consider the implementation of an upland soil and native plant community restoration along the bluff.

The MWMO will continue work on the H&H and water quality modeling projects that are underway and plans to start working in at least one additional watershed in 2016. The MWMO will also continue sponsoring feasibility studies to explore the feasibility and potential benefit of capital projects, as needed.

Financial Information

Policy

During plan development (1997-2000), the MWMO acknowledged the limits of its member communities to incur additional financial expenses and therefore developed strategies for new funding mechanisms. The MWMO sought inclusion on the list of Special Taxing Districts (MS Chapter 275.066), and, in 2001, MWMO became the first joint powers WMO to receive levy authority. This funding is necessary to implement plan goals and objectives of the watershed management plan. Taxes are levied in accordance with procedures specified in the Joint and Cooperative Agreement (JCA) and Minnesota Statutes 103B. 201 – 103B.255 and the Metropolitan Surface Water Management Act, and are subject to limitations set forth in Minnesota Tax Statutes, the Act, the JCA and the Watershed Management Plan. It is the Board of Commissioners' policy to use funds raised in the most effective and efficient manner possible. The MWMO completed an update to its comprehensive plan in 2011 which changed the way projects are selected for inclusion on the CIP. This was amended in May of 2015.

The MWMO will continue to coordinate its CIP with that of its members. Projects will be required to have feasibility studies completed that describe estimated water quality and quantity benefits and habitat or resource protection and improvement prior to being selected as a MWMO CIP. This means anyone wishing to partner with the MWMO will need to invite the watershed to the table early in project design and assessment. The MWMO believes this will improve the project selection process and allow for better budgeting.

Budget

In general, the MWMO follows the following process to set its annual budget and select capital projects to which grant funding is allocated:

- Seek and receive project proposals from members by May of the prior year
- Submit a draft budget and amended CIP at the July board meeting
- Select proposed projects for the next fiscal year at the September board meeting
- Submit a preliminary budget to counties by September 15
- Make the updated CIP final and approve a final budget at the November board meeting
- Submit a plan amendment, if needed, to the Minnesota Board of Water and Soil Resources
- Submit final levy documents to Anoka, Hennepin and Ramsey Counties by December 15

This process is changing as part of the development of a Comprehensive Watershed Management Plan amendment in 2015. Anyone interested in details of the budget process should contact the MWMO.

For additional financial information, including the 2015 audit, go to mwmo.org or contact Douglas Snyder, Executive Director.

2015 Budget

Projects & Programs	\$.....3,945,000
Administration	\$.....1,530,000
Subtotal Budget	\$.....5,475,000
Contingency 1.5% (Uncollected Levy)	\$..... 85,000
Total Budget	\$..... 5,560,000

Projects	\$.....3,050,000
Prospect North Project	\$..... 150,000
Green 4th Street	\$.....1,500,000
Stadium Plaza Tree System	\$..... 800,000
Columbia Heights Library	\$..... 600,000

Programs	\$..... 895,000
Water Conservation	\$..... 55,000
Outreach/Training/Education Nonpoint Source Pollution Program	\$..... 165,000
Stewardship Grant	\$.....0
Planning	\$..... 60,000
Watershed Assessments (Research, Hydrologic and Hydraulic Studies)	\$..... 365,000
Monitoring	\$..... 150,000
Greening	\$.....0
Land Acquisition	\$..... 100,000
Program Support/Consultants	\$.....0

Administration	\$.....1,530,000
Staff Salary and Benefits	\$.....1,300,000
Commissioner Expenses	\$.....0
Rent, Office Administration, Equipment, and Supplies	\$..... 80,000
Service Providers - Legal, Engineering, IT, HR, Auditor, Accounting	\$..... 120,000
Operating Reserve	\$..... 30,000

The following table represents the estimated breakout of levies for each county within the MWMO for 2016.

District 072 - Middle Mississippi River Watershed Management Organization			
Certification of Apportioned Levies			
Payable 2016			
<i>(1) Payable 2016 Property Tax Levy</i>		<u>\$ 5,700,000</u>	
County	(2) Payable 2015 Taxable Net Tax Capacity	(3) Net Tax Capacity Percent Distribution	(4) Apportioned Payable 2016 Levy (1x3)
ANOKA COUNTY	\$ 15,912,817	7.1436%	\$ 407,186
HENNEPIN COUNTY	\$ 205,589,021	92.2934%	\$ 5,260,726
RAMSEY COUNTY	\$ 1,254,000	0.5629%	\$ 32,088
WATERSHED TOTAL	\$ 222,755,838	99.9999%	\$ 5,700,000