



MISSISSIPPI  
WATERSHED  
MANAGEMENT  
ORGANIZATION



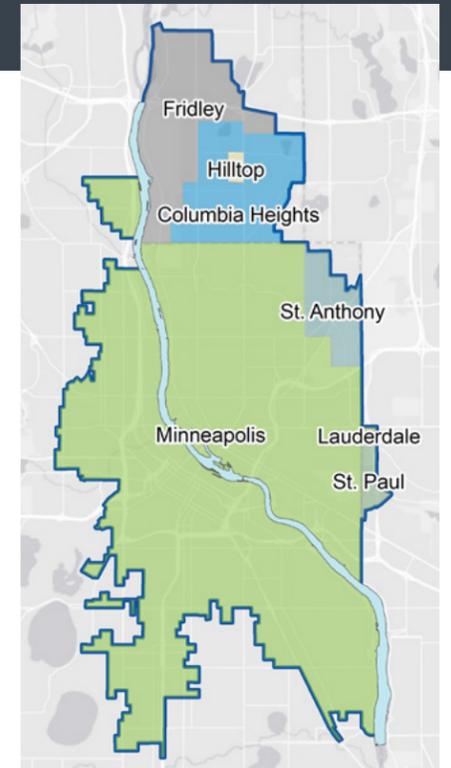
2019 Magazine



# WHO WE ARE

The Mississippi Watershed Management Organization works to protect and improve water quality, habitat and natural resources in an urban watershed that drains directly into the Mississippi River. We are a joint-powers local government unit and one of approximately three-dozen watershed organizations in the Twin Cities metropolitan area.

We partner with our member communities to invest in green infrastructure that captures, cleans and reuses stormwater runoff. Our team monitors and tracks water quality in the watershed and conducts education and outreach to promote environmental stewardship among residents.



MWMO Watershed Boundaries

## Message from the Executive Director



The Mississippi Watershed Management Organization (MWMO) works to protect water quality and habitat in our urban watershed, which drains directly to the Mississippi River. We accomplish this through a variety of projects and programs, many of which you can read about in these pages.

Over the next two years, we will be updating our comprehensive Watershed Management Plan, which guides all of our work at the MWMO. The plan lays out our goals, strategies and actions to accomplish our mission. It also guides local water management planning for communities that reside within the MWMO watershed.

We want your input! Tell us your priorities for water quality, habitat and green space in your community. Your feedback will help us as we begin to lay out the framework for our updated plan. We've set up an online survey, which you can find at [mwmo.org/survey](http://mwmo.org/survey). There will also be other opportunities for public input throughout the process. Visit our website to sign up for our email list; you can subscribe to updates on the planning process.

—Doug Snyder,  
Executive Director

## Message from the Board Chair



Each year, the MWMO funds diverse and creative projects throughout our watershed. These projects support clean water, cutting-edge stormwater management, and environmental health. Beyond those benefits, each project forges unique partnerships and demonstrates the diversity and richness of our watershed community.

Case in point: the JXTA Skate-Able Art Plaza (*see page 8*). This project, located at Juxtaposition Arts' Broadway Street North headquarters, adds stormwater management infrastructure to a flexible open space that also incorporates art installations, skateboarding, and innovative, site-specific educational programming. Similarly, the Masjid An-Nur 'Eco-Mosque' project (*see page 7*) will result in much-needed stormwater improvements to solve long-term flooding and drainage problems, while simultaneously providing educational opportunities for the community that uses the space.

I encourage you to learn more about the scope of MWMO's work and the myriad ways we are engaging and partnering with the diverse communities that make up our watershed.

—Chair Kevin Reich,  
Board of Commissioners

Member City or Organization	Area of MWMO	Square Miles within MWMO
Columbia Heights	7.92 %	3.16
Fridley	9.51 %	3.80
Hilltop	0.32 %	0.13
Lauderdale	0.16 %	0.06
Minneapolis	73.26 %	29.27
Minneapolis Park & Recreation Board	5.42 %	2.17
Saint Anthony Village	2.55 %	1.02
Saint Paul	0.85 %	0.34



## 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.”

# WATER QUALITY MONITORING

One of our most important functions at the MWMO is to monitor and track changes in the water quality of the Mississippi River. Our monitoring team conducts year-round sampling of water in the river itself as well as from the local stormdrain systems. The data we collect provides a scientific basis for identifying and tracking water quality issues over time.

The MWMO's monitoring efforts help inform public policy as well as prioritize the selection of projects to control pollution and improve water quality. In addition to water quality indicators, the MWMO monitoring team staff aid in the collection of other scientific data, such as macroinvertebrate sampling and bathymetric mapping.

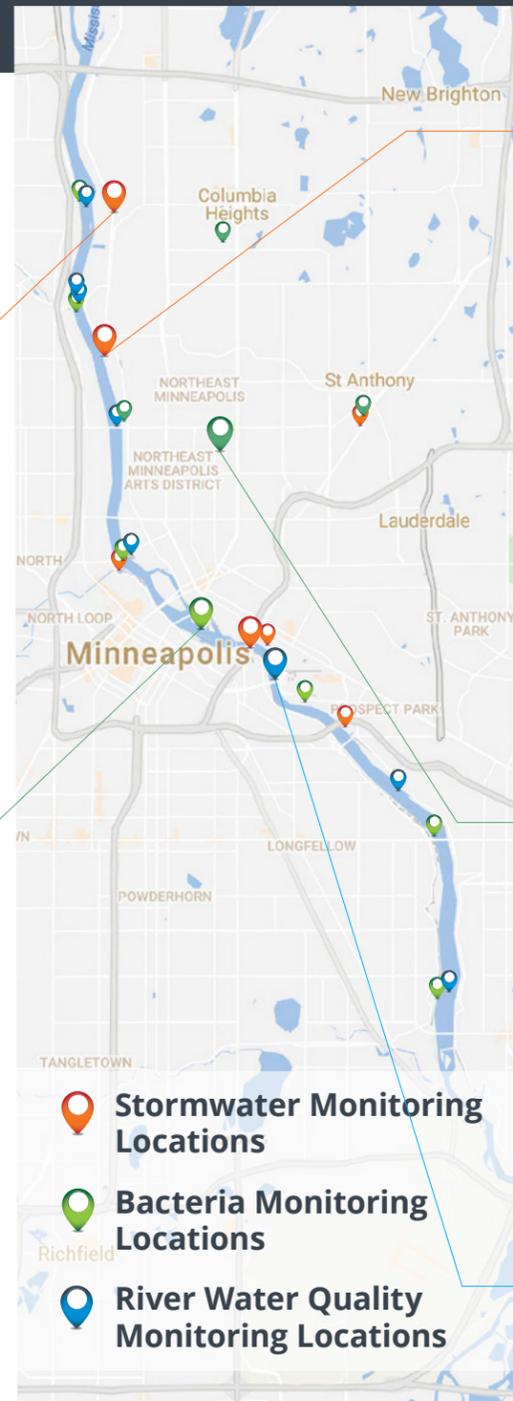
## Automatic Sampling Equipment



Several of our stormwater monitoring sites feature automated sampling equipment and sensors. Installed at strategic locations, these automatic samplers help create a more accurate, comprehensive picture of how local stormwater runoff is impacting water quality in the river.

## Bacteria Monitoring

The MWMO monitors for *Escherichia coliform* bacteria (also known as *E. coli*), which is an indicator of fecal contamination within a waterbody. The team samples for *E. coli* levels at seven locations along the river as well as five stormwater outfalls.



## Stormwater Monitoring

The MWMO monitors the quantity and quality of the stormwater runoff that drains through the network of local stormsewers and flows into the Mississippi River. Seven monitored locations were selected based on the size of their drainage systems (pipesheds) and their accessibility.



## Stormwater BMP Monitoring

The MWMO monitors selected stormwater best management practices (BMPs) within the watershed. Its goal is to determine how effective the BMPs are in removing pollutants from stormwater runoff. Monitored sites currently include Thomas Edison High School and the St. Anthony Regional Stormwater Treatment and Research System. Future sites include Jackson Pond in Columbia Heights and the MWMO's own Stormwater Park and Learning Center.

## River Water Quality Monitoring

The MWMO monitors water quality in the Mississippi River to establish baseline data that can be used to help manage this precious resource. The team takes water quality measurements and samples one to two times per month at eight selected locations along the river. The MWMO also collects data on water levels and conducts bathymetric (river bed) mapping.



# CAPITAL PROJECTS

The majority of the MWMO's annual budget goes to support capital projects. These large-scale projects are designed to protect and improve water quality and habitat within our watershed, and/or to showcase innovative stormwater management.



## Northern Columbia Golf Course Stormwater BMPs

MWMO Funding: TBD

The MWMO is working with the City of Minneapolis and the Minneapolis Park and Recreation Board to install a series of stormwater best management practices (BMPs) in the northern portion of Columbia Golf Course and Columbia Park in Northeast Minneapolis. These BMPs will treat polluted runoff from a previously untreated 612-acre drainage area. In addition to keeping pollutants out of the nearby Mississippi River, the project will help to reduce flooding and will enhance the area's ecology.

## Water Works

MWMO Funding: \$900,000

Construction has begun on Water Works, a new park on the Mississippi Riverfront in downtown Minneapolis. The project includes a realignment of West River Parkway along with the creation of new green spaces and a pavilion. The MWMO is funding a stormwater reuse system that will collect and treat roof runoff from the existing rooftops of adjacent buildings. This water will be used for irrigation at the Water Works site and toilets in the pavilion.



Courtesy: Minneapolis Park and Recreation Board

## IMPACTS

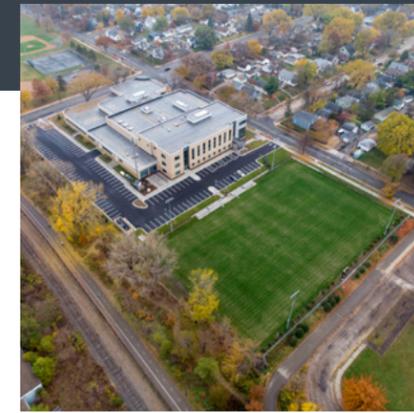
Benefits\* from these projects:

**1.8 million gallons** of stormwater reused.

**75,000 pounds** of sediment (TSS) captured.

**157 pounds** of phosphorus captured.

*\*Estimated annual averages.*



## Hiawatha Collegiate High School

MWMO Funding: \$180,000

Hiawatha Collegiate High School's new South Minneapolis campus includes a stormwater reuse system for irrigating the school's athletic field and landscaping. The school secured a Capital Project Grant from the MWMO to increase the capacity of their underground storage system beyond the city requirements for water quality treatment and rate control.



## East Side Storage and Maintenance Facility

MWMO Funding: \$550,000

This new City of Minneapolis Public Works facility in Northeast Minneapolis will feature an underground infiltration system that captures and treats nearly all of the 9-acre site's runoff. Together with raingardens, permeable pavement and other features, the system will filter more than 238,000 gallons of runoff per each 1.1-inch rain event. The MWMO is also funding interpretive signage at the site.



## JAX Apartments 'Smart Blue Roof'

MWMO Funding: \$203,100

This new apartment building will host an innovative stormwater system that marries multiple treatment methods with smart sensor technology. Water that falls on the building's roof will flow in several ways: into an underground cistern, onto a green roof, and onto a "blue roof" that holds stormwater on the rooftop. This captured stormwater can either be allowed to evaporate over time or used to water the green roof and landscaping.

## GRANT TYPES

### Mini Grants

Available for small projects that engage people in protecting water quality. Maximum \$3,000. No matching funds required.

### Planning Grants

Available to plan for a project, significant in scope and cost. Maximum \$10,000. Some matching funds required.

### Action Grants

Available to complete a project, significant in scope and cost. Maximum \$50,000. Some matching funds required.

### Masjid An-Nur 'Eco-Mosque'

Grant Types: Planning, Action

A redesigned landscape will help transform Masjid An-Nur into an "Eco-Mosque" focused on sustainability and environmental justice. A pair of MWMO Stewardship Fund Grants are funding design and construction of raingardens that will help solve persistent drainage problems at the North Minneapolis mosque and open up new opportunities for engaging the community around environmental issues.



### Nicollet Island Restoration

Grant Types: Planning, Action

Supported by two MWMO Stewardship Fund Grants, Friends of the Mississippi River led a group of community partners in a project to remove invasive species, stabilize eroding riverbank and restore native habitat on the island. These improvements will provide a variety of benefits, including better ecology, improved recreation opportunities, and improved stormwater retention and infiltration.



# STEWARDSHIP FUND GRANTS

Stewardship Fund Grants support public efforts to manage stormwater, control pollution and improve water quality and habitat. The MWMO offers three types of Stewardship Fund Grants for eligible applicants, with grant awards ranging from a maximum of \$3,000 to \$50,000, depending on the nature of the project.

Eligible applicants include nonprofits, business and professional associations, officially recognized neighborhood groups, schools and local units of government located within the MWMO watershed. Learn more at [mwmo.org/stewardshipfund](http://mwmo.org/stewardshipfund).

### JXTA Skate-Able Art Plaza

Grant Type: Action

The MWMO provided an Action Grant to fund construction of raingardens at Juxtaposition Arts' one-of-a-kind skate park, allowing nearly all of the site's stormwater runoff to be captured and treated. In addition to providing stormwater treatment, the raingardens will serve as an educational tool. JXTA youth apprentices will help create site-specific interpretive programming.



### Kasota Ponds Buckthorn Removal

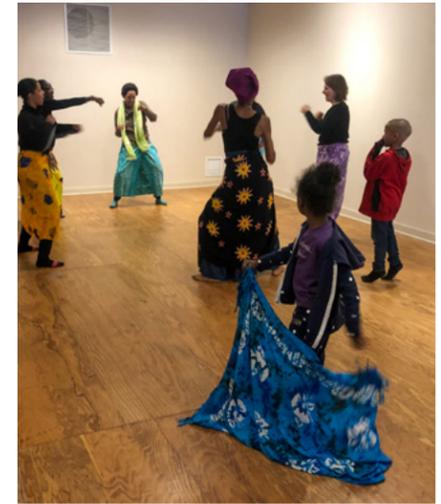
Grant Type: Mini

The St. Anthony Park Community Council removed buckthorn and re-established native vegetation along a small chain of wetlands near the border of Minneapolis and St. Paul. Contractors used a forestry mower (pictured) to shred mature buckthorn growth, while volunteers worked to remove the undergrowth. These efforts were funded by two MWMO Mini Grants. The MWMO also monitors the water quality of the ponds, which are home to a variety of birds and other wildlife.

### Tending Our Shared Waters

Grant Type: Action

Freshwater Society and Water Bar and Public Studio worked together to develop a pilot program of culturally relevant training that includes a "Water Tender School" and a "Water Tender's Guidebook." These products are designed to equip volunteers and professionals with the skills to better engage a wide variety of audiences in meaningful conversations about water.



# COMMUNICATIONS AND OUTREACH

The MWMO works to raise awareness of water quality issues and promote voluntary actions that help protect and improve local water resources and habitat.



## Good Neighbor Community Cleanups

The MWMO launched a new community cleanup program in 2019, offering residents and neighborhood groups support for organizing and hosting their own cleanup events. The MWMO provides cleanup kits (including various tools, safety equipment and trash bags) as well as flyers, sign-up forms and other printed materials to help set up the event. In the initial pilot phase, 93 volunteers cleaned up 600 pounds of trash during 10 different cleanup events.

## Stormwater Park and Learning Center Exhibits

Kat Corrigan's *Waterways and Otterways* exhibit attracted audiences of all ages with her playful paintings and lively puppet show. *Riverlines*, Annie Hejny's exhibit of colorful paintings made with river water and sediment, demonstrated a strong connection to the river outside our windows. Finally, faculty and staff from the University of St. Thomas hosted guided walks through MWMO's raingardens to point out pollinators and their host plants in support of their *Pollinator Pathways* exhibit.



## Urban Boatbuilders Partnership

The MWMO partnered with Urban Boatbuilders and East Side Neighborhood Services on a youth boat-building project. During the course of nine weeks, members of the Mississippi River Green Team and teens from Menlo Park Academy built a beautiful skin-on-frame wooden canoe. In addition to developing new skills in woodworking and boatbuilding, the youth gained experience with communication, teamwork, problem-solving and goal-setting.



## Mississippi River Green Team

The Mississippi River Green Team is a two-year employment and conservation program for Minneapolis teens. Now in its 12th year, the program is designed to help diversify the environmental workforce by providing youth from underserved communities with a mentored job experience.

The MWMO and the Minneapolis Park and Recreation Board created the Mississippi River Green Team as a special unit of MPRB's Teen Teamworks. Participants care for Minneapolis parks, learn about environmental careers and acquire new skills.

Learn more at [mwmo.org/greenteam](http://mwmo.org/greenteam).



## Green Infrastructure Training

Utilizing green infrastructure for stormwater management is increasingly common; unfortunately, there is a shortage of skilled workers who know how to properly maintain it. The MWMO is partnering with its member communities to train the next generation of public works professionals on how to care for this important infrastructure. In 2019, two levels of training were held for City of Minneapolis Public Works interns, who learned about various urban stormwater best management practices. The program is planned to expand in 2020.



“ Being a part of the Green Team helped me take the first steps into the environmental field, and the alumni internship really made it possible to dive deeper and see the connections across different efforts. These opportunities made me a more engaged and informed individual through experience and knowledge moving forward to create positive impacts. ”

—Akia Vang,  
MRGT Member, 2014-2016  
MRGT Alumni Intern, 2019

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Visit our website to sign up for email updates on topics of your choice. We offer a quarterly email newsletter as well as updates on specific projects, home and garden tips and more. Visit [mwmo.org](http://mwmo.org) to subscribe.

# PLANNING

The MWMO is a driver in advancing opportunities for innovative stormwater treatment that fits with the desired land use. These efforts result in designs that serve multiple purposes — infrastructure that reduces flooding while also improving water quality and habitat. Planning typically starts three to five years ahead of construction.

## Watershed Management Plan Update

In 2019, the MWMO began the process of updating its comprehensive Watershed Management Plan. This plan, which is updated every 10 years in accordance with state law, guides all of our work at the MWMO. It lays out our goals, strategies and actions to protect and improve water quality and habitat in the MWMO watershed. It also guides local water management planning for communities within our watershed.



The MWMO will be working to update the plan over the next two years. During this process, the MWMO will seek input from various stakeholders — including the public, state agencies, and local governments — about local stormwater-related issues, water management goals, regulations and programs.

We want your input! Please visit [mwmo.org/survey](http://mwmo.org/survey) and follow the link to our online survey. Your feedback will help us understand your concerns, priorities and goals for the health of the watershed.



## Towerside 'Blue/Green Framework'

The MWMO is partnering with Capitol Region Watershed District to co-fund and participate in the development of a “Blue/Green Framework” for the Community Enterprise Zone and the Towerside Innovation District near the University of Minnesota’s East Bank Campus. This study will examine the existing underground system of stormwater drainage with potential opportunities for above-ground stormwater treatment, stormwater reuse, and habitat improvement. The final product will be long-range master plan that will help inform redevelopment plans for the area.

# WATERSHED ASSESSMENT

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.

## Upper Harbor Terminal Stormwater Feasibility Study

The MWMO is exploring the feasibility of various stormwater treatment systems for the Upper Harbor Terminal site, which is soon to be redeveloped by the Minneapolis Park and Recreation Board (MPRB). The MWMO’s goal is to find ways to manage stormwater runoff from portions of the surrounding region (i.e., regional treatment) as well as from the site itself. A feasibility study will examine surface and underground storage and infiltration, potential stormwater reuse options, habitat improvements and educational opportunities.



## Islands of Peace and Riverfront Regional Park Stabilization Study

Anoka County Parks and the MWMO are partnering to explore options for stabilizing riverbank and restoring habitat in parkland along the Mississippi River in Fridley. The study will look specifically at Chase Island (part of Islands of Peace Park) and Riverfront Regional Park. Researchers are examining potential landscape alterations that would protect water quality in the river, improve the quality and diversity of habitat, and design a shoreline that meets the needs of both human visitors and wildlife.





MWMO permanent staff in July 2019.

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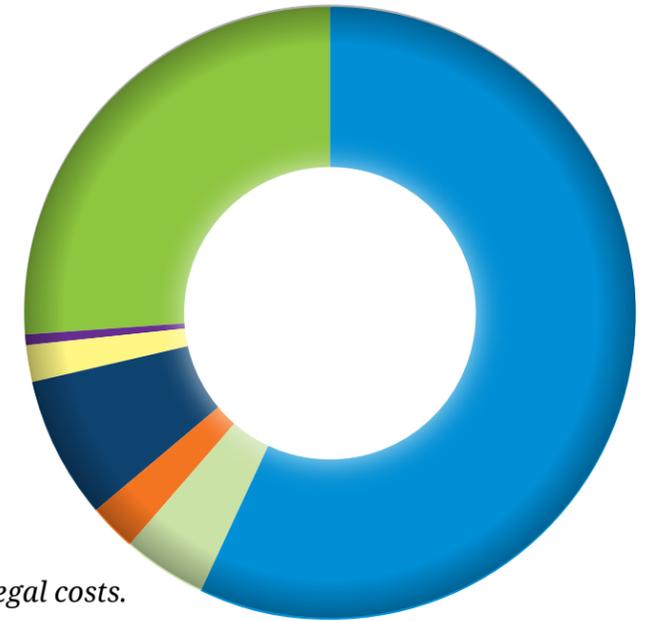
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*Includes permanent staff only. Current as of September 2019.*

# BUDGET

## Annual Expenditures (5-Year Average)

	Projects	\$3,314,865
	Monitoring	\$248,240
	Stewardship Fund	\$151,641
	Watershed Assessment	\$429,171
	Outreach	\$117,052
	Planning	\$29,646
	Administrative*	\$1,512,313



*\*Includes staff salaries and benefits, HR, accounting, and legal costs.*



## Internship Program

MWMO interns work with staff and partner organizations to implement MWMO programs in nonpoint source pollution prevention, source water protection, integrated water resource planning and outreach and education. The MWMO accepts applications for internships on an ongoing basis. For more information, visit [mwmw.org/employment](http://mwmw.org/employment).



*In March, 2019, the MWMO partnered with Daryel, a metro-based non-profit, and local Somali leaders to share information with each other during a workshop at the MWMO. Participants toured the Stormwater Park & Learning Center and learned how residents can protect water bodies from pollution.*

*Leaders contributed insights for planning effective outreach and communications to bring this information to the East African community. Their commitment to protecting water quality has resulted in helping the MWMO develop a Minneapolis Community Education class, producing a video to raise awareness in their community, and sharing ideas that informed three youth workshops held over the summer.*



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City of Fridley

### Jerry Faust

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### (Vacant)

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### Chris Meyer

Minneapolis Park & Recreation Board

## CITIZEN ADVISORY COMMITTEE

### At-Large Positions

Andrew Dickhart  
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### Saint Anthony Village

Lona Doolan

### Saint Paul

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Protect it. Pass it on.

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