

**Shingle Creek  
Watershed Management Commission  
2021 Annual Activity Report**



## Table of Contents

	page
Annual Activity Report.....	1
The Commission.....	1
Consultants.....	1
Meetings.....	1
Watershed Management Plan.....	1
Local Plans .....	2
Status of 2021 Work Plan .....	2
Development Projects .....	2
Stream Monitoring .....	2
Lake Monitoring .....	3
Studies .....	4
Cost Share Projects.....	4
Capital Projects .....	5
Education and Public Outreach .....	5
Administration and Operations .....	6
Ongoing and Outstanding Goals .....	6
Consultant Services Selection .....	6
2021 Water Monitoring .....	7
Stream Monitoring .....	8
Lake Monitoring .....	8
Wetland Monitoring.....	8
Finances .....	9
Projected 2021 Work Plan .....	10
Continue to Implement TMDLs .....	10
Partner with other organizations to increase reach and cost effectiveness .....	11
Continue ongoing administration and programming .....	11

### Appendices

- 1 Commissioners, TAC Members and Staff
- 2 Amendments to Watershed Plan
- 3 Local Plans
- 4 Project Reviews
- 5 Education
- 6 Financials

This report was prepared for the  
Shingle Creek Watershed Management Commission  
by JASS

Questions regarding this report should be directed to  
JASS, 763.553.1144 or judie@jass.biz.

We gratefully acknowledge the assistance of  
Diane Spector and Katie Kemmitt, Stantec Consulting Services

Cover photograph:  
Carp Harvesting, Crystal Lake, Robbinsdale





## 2021 ANNUAL ACTIVITY REPORT

This annual report has been prepared by the Shingle Creek Watershed Management Commission in accordance with the annual reporting requirements of Minnesota Rules Chapter 8410.0150, Subps. 2 and 3. It summarizes the activities undertaken by the Commission during calendar year 2021.

### THE COMMISSION

The Shingle Creek Watershed Management Commission is governed by a nine-member board comprised of representatives from each member city who are appointed for terms of three years. The nine member cities are Brooklyn Center, Brooklyn Park, Crystal, Maple Grove, Minneapolis, New Hope, Osseo, Plymouth and Robbinsdale. Commissioners who served in 2021 are shown in *Appendix 1*. Also shown there are members of the Technical Advisory Committee (TAC) who represent the member cities.

### CONSULTANTS

The Commission has no employees. The names of the consultants currently retained by the Commission are also listed in *Appendix 1*.

### MEETINGS

The Commission meets monthly at 12:45 p.m. on the second Thursday of the month. The meetings are open to the public. Meeting notices, agendas and approved minutes are posted on the Commission's website, [www.shinglecreek.org](http://www.shinglecreek.org). In 2021, due to the COVID-19 pandemic, Commission meetings were held virtually on [www.zoom.us](http://www.zoom.us). Meeting dates and times remained the same.

### WATERSHED MANAGEMENT PLAN

In 2013 the Shingle Creek and West Mississippi Watershed Management Commissions adopted their joint 2013-2022 Third Generation Watershed Management Plan. The Plan, approved by the Board of Water and Soil Resources (BWSR) on March 27, 2013, is the culmination of a two-year planning effort by the two Commissions, the cities that are members of these Joint Powers Organizations, state agencies, and the public. The Plan sets forth goals and strategies that will guide water resources management activities in the two watersheds over the coming decade. Over the years the Commission, either individually or together with the West Mississippi Commission, has adopted a number of amendments to the Plan. They are described briefly in *Appendix 2*. In 2021,

the Commissions began the process of developing their Fourth Generation Plan. It is anticipated that they will complete the Plan and it will be approved by BWSR by the end of the year 2022.

## LOCAL PLANS

Revisions to Minnesota Rules 8410 adopted in 2015 include significant changes in the timing of local water plan revisions. Found under Rule 8410.0105 sub-paragraph 9 and 8410.0160 subparagraph 6. Local plan requirements are summarized in *Appendix 3*.

## STATUS OF 2021 WORK PLAN

The Third Generation Watershed Management Plan states that the Shingle Creek and West Mississippi Watershed Management Commissions will annually review progress toward their Third Generation goals and that this evaluation will become part of the Annual Activity Report. The purpose of the annual review is two-fold: to determine progress towards the goals and to be sure the Commission stays on track to reach them. The annual review also provides an opportunity to discuss whether the goals and actions in the Plan still make sense or if they should be considered for modification or enhancement, perhaps to add new priorities.

The Shingle Creek Watershed Management Commission established its 2021 Work Plan at its January 14, 2021 meeting. Highlights include:

- **DEVELOPMENT PROJECTS**

**Complete reviews of development and redevelopment projects as necessary.** *Nine projects were reviewed by the Commission in 2021. They are described in more detail in Appendix 4. No variances were requested for these projects. The Commission does not have a permit program.*

- **STREAM MONITORING**

**Complete routine flow and water quality monitoring and special project monitoring on streams in the Shingle Creek watershed.** *Three sites along Bass and Shingle Creek were monitored biweekly from April through October: near the stream's outlet to the Mississippi River in Minneapolis (SC-0); mid-watershed in Brooklyn Park (SC-3); and in Bass Creek (BCP) in the upper watershed. Winter chloride was sampled monthly from November through March at the three locations mentioned and at the United States Geological Survey (USGS) gage site at Queen Avenue (SC-1). The Commission continued its partnership with the USGS to operate the Queen Avenue site.*

*Completed 5-year biotic and DO TMDL review report for Shingle and Bass Creeks, conducted two additional DO longitudinal surveys at designated road crossings.*

**Partnered with the Cities of Brooklyn Park and Brooklyn Center** to undertake Connections II streambank improvements for Shingle Creek from Regent Avenue to Brooklyn Boulevard. This project was awarded a \$328,000 Clean Water Fund grant.



**Partnered with the City of Brooklyn Park** to undertake Bass Creek Park streambank improvements from Cherokee Drive to I-694. *The project was awarded a \$70,000 Watershed-Based Implementation Fund (WBIF) grant.*

**Partnered with the City of Crystal** to plan for the SRP Channel filter Project to line about 400 feet of the channel downstream of the Wetland 639W overflow weir with iron-enhanced sand. Hennepin County awarded the Commission a \$75,000 Opportunity Grant for this project, matched by \$50,00 from the Commission's Closed Projects Account. *The City continues to work with the Metropolitan Airports Commission, the landowner, to obtain approval for the project.*

**Sponsor volunteer stream monitoring through RiverWatch and wetland monitoring through WHEP (Hennepin County).** *Monitoring through the WHEP program did not occur in 2021 due to COVID-19. Hennepin County was able to complete one RiverWatch monitoring event on Shingle Creek below the Webber Park Falls with Avail Academy.*

- **LAKE MONITORING**

**Conduct routine Commission lake water quality monitoring and aquatic vegetation and fish surveys on Success and Cedar Island Lakes and grant funded monitoring on Bass, Pomerleau, and Crystal Lakes.** *Routine monitoring occurred on Cedar Island Lake and Lake Success in Maple Grove; Bass and Pomerleau Lakes in Plymouth; and Crystal Lake in Robbinsdale. Aquatic vegetation in all five lakes was surveyed once in late spring and again in late summer. The carp and fish populations of Cedar Island Lake were also surveyed. Crystal, Bass, and Pomerleau Lakes have all been listed as impaired for nutrients and are undergoing active management. Bass and Pomerleau Lakes each received two doses of alum – in May 2019 and in September 2020.*

**Partner with the City of Robbinsdale to continue implementing the Crystal Lake Management Plan, including carp removal, aquatic vegetation management, and alum treatment.** *Crystal Lake underwent invasive carp removals in Summer 2021 and received its first dose of alum in September 2021. The summer removal was featured on KARE 11 TV and in a Sun Post news article.*

**Complete aquatic vegetation surveys on Bass and Upper Twin Lake and provide aquatic invasive species treatment as necessary.** *Completed third year of delineating curly leaf pondweed for treatment purposes on Bass Lake.*

**Partner with the City of New Hope to implement the Meadow Lake Management Plan.** *This project was awarded a \$153,510 Clean Water Fund grant as well as a \$40,000 WBIF grant. A whole lake drawdown occurred in fall and winter 2021. This will be followed by alum treatments, fish and aquatic vegetation management, and monitoring.*

**Sponsor volunteer lake monitoring through CAMP (Metropolitan Council).** *Schmidt, Magda, Meadow, Eagle, and Pike Lakes were monitored through CAMP in 2021.*

**Continue to implement TMDLs so as to delist all impaired waters in the watershed and to pursue grant funding for identified projects.** *This is an ongoing goal of the Commission.*

**Prepare an annual water quality report.** *The 2021 Annual Water Quality Report was presented to the Commission at their April 14, 2022, meeting.*

- **STUDIES**

**Complete the HUC study in partnership with the DNR.** *Continue to work with the Dept. Of Natural Resources (DNR) to update the Special Flood Hazard Areas in the watershed (the HUC8 Study). In November of 2019, the Commission approved amending the scope of the ongoing HUC 8 hydrologic and hydraulic modeling to include the Twin and Ryan Lake/Creek system. This included additional detailed analysis of Twin Lakes and Ryan Lake to establish the regulatory High-Water Level (HWL) as well as additional analysis to determine how the proposed HWL will impact nearby structures and how to mitigate risk with additional drainage options. The agreement between the parties extended through March 31, 2021. Staff provided the member cities with shape files for their use and a pumping plan to coordinate overflow pumping. City and Commission staffs will collaborate with the DNR to review and discuss where large rises occur before the Floodplain Areas and Profiles are published and mapped by FEMA.*

**The Commission has had a goal to complete subwatershed assessments for at least 25% of that part of the watershed that developed prior to Commission rules in 1984.** *Only 14% of the pre-1984 development Shingle Creek watershed has been completed as of the time when the Minneapolis Subwatershed Assessment was completed in 2020. A more achievable goal would be 15%.*

**Participate in the Hennepin County Chloride Initiative (HCCL),** *a collaborative initiative of the eleven watersheds in Hennepin County, funded by about \$100,000 set aside from the last round of Watershed-Based Funding (WBIF) provided by the Board of Water and Soil Resources (BWSR). Staff continued to participate in this work group.*

- **COST SHARE PROJECTS**

**Solicit cost-share projects from member cities, to be funded from the Cost Share Fund and its annual \$100,000 levy and the Partnership Cost Share Fund with its annual \$50,000 levy.** *In April, the Commission awarded \$30,000 for Phase II of the Brooks Garden project in Brooklyn Park. The second phase of this project included creating nine raingardens throughout the complex to capture roof, sidewalk, and play area runoff and increase storage capacity in the floodplain. Total project cost was \$86,107.*



- **CAPITAL PROJECTS**

**Review feasibility studies for 2021 proposed capital projects, undertake Plan Amendments, hold public hearings, order projects, and certify levies.** *The joint Commissions conducted a public hearing on September 9, 2021, to consider four Shingle Creek and two West Mississippi projects for County levy in 2021 for collection in 2022. The cost of the four Shingle Creek projects is estimated to be \$975,000; the total levy amount is \$927,940. The four projects with their estimated costs and total levy amounts are:*

- *City Cost Share Projects, unidentified watershed-wide, \$200,000, \$106,050*
- *Partnership (private) Cost Share Projects, unidentified watershed-wide, \$50,000, \$53,025*
- *Palmer Lake Estates Bass Creek Restoration, Plymouth, \$600,000, \$636,300*
- *Phase 2 SRP Channel Extension, Crystal, \$125,000, \$132,565*

- **EDUCATION AND PUBLIC OUTREACH**

**Participate in the West Metro Water Alliance (WMWA) joint education and outreach group. Continue its successful Watershed PREP classes.** *The onset of the pandemic curtailed in-class participation. Only one classroom presentation was given in 2021, in the fall. Educators created a video of the presentation in 2020 for parents and teachers to use virtually. A new Educator was hired in November 2021 to replace an Educator who had retired.*

*Identified and completed education and outreach activities that can assist member cities to fulfill requirements of the new MS4 General Permit – created and disseminated flyers related to pet waste, chloride use, and salt use. Appendix 5*

*Approved revisions to WMWA's Education and Outreach Plan, also found in Appendix 5.*

**Invite three guest speakers to make lunchtime water resources presentations.**

*In January, Stephen Mastey, Landscape Architects, gave an update on the Crescent Cove Partnership Cost Share project.*

*In November, Mastey and associates from his firm and the Crescent Cove Association returned to present a pictorial update on the project.*

*In addition, representatives from Metro Blooms and Boisclair Corporation were present at the April meeting to provide a pictorial update of Phase I of the Brooks Gardens Partnership Cost Share project. The Commission awarded \$30,000 in cost share funds to this project.*

**Tour project sites in the watershed.** *Due to COVID-19 and the need for social distancing, no tours were conducted in 2021.*

**Partner with other organizations to increase reach and cost effectiveness.** *During 2021 the Commission partnered with many organizations, including the Board of Water and Soil Resources (BWSR), the Minnesota Pollution Control Agency (MPCA), Hennepin County*



*Environment and Energy (HCEE), Three Rivers Park District (TRPD), the United States Geological Survey (USGS), the Metropolitan Council, and the Department of Natural Resources (DNR).*

- **ADMINISTRATION AND OPERATIONS**

**Prepare a 2022 annual operating budget and begin scoping the Fourth Generation Management Plan.** *On May 13, 2021, the Commission adopted a \$372,700 operating budget for 2022. Assessment to the members totaled \$363,590, a zero increase over 2020 and 2021. See Appendix 6 to view the 2022 budget. (Appendix 6)*

*Began the process of developing the joint Commissions' Fourth Generation Watershed Management Plan. The kickoff meeting was held on September 9, 2021. It is anticipated that the Plan will be completed by the Commissions and approved by BWSR by the end of 2022.*

*Approved resolution authorizing the electronic storage of Commission records, electronic transactions, and electronic signatures.*

*Conducted a survey regarding preferences for in-person v. virtual meeting attendance. While slightly fewer than a majority of members desired to return to in-person, this possibility was also limited by the number of facilities open for a group of our size with social distancing.*

- **ONGOING AND OUTSTANDING GOALS**

**Begin work on the "sustainable water budget" project.** *While Commission staff have had discussions with USGS staff about this, a funding source for this project has yet to be identified.*

**The Commission has a goal of maintaining the functions and values of priority wetlands.** *A process has not been established by which that would be evaluated.*

**Expand the Directly Connected Untreated Areas geodatabase to include boundaries of the untreated areas directly connected to the lakes in the watershed.** *Streams were completed in 2017.*

**Partner with the USGS, DNR, and other interested parties to stay abreast of groundwater issues.**

**Continue to pursue grant funding for TMDL implementation projects.**

**Continue to identify, pursue grant funding for, and implement projects and programs addressing the bacterial impairment in Shingle Creek and the Mississippi River.**

**Stay abreast of other regional and state TMDLs.**

## **CONSULTANT SERVICES SELECTION**

Every two years, a solicitation of interest proposals for technical, legal and administrative services is

published in the *State Register*. Solicitations were published in the December 14, 2020, edition of the *State Register*. At their January 14, 2021, meeting, the Commission voted to retain the current consultants for 2021-2022. They are Wenck Associates, now part of Stantec Consulting Services, for technical services; Kennedy Graven Chartered for legal services, and Judie Anderson's Secretarial Services, Inc. for administrative services. This biennial process will be repeated in January 2023.

## 2021 WATER MONITORING

Minnesota Administrative Rule 8410.0100 Subp.5 requires watershed management organizations to conduct monitoring programs "capable of producing accurate data to the extent necessary to determine whether the water quality and quantity goals of the organization are being achieved."

The Shingle Creek and West Mississippi Watershed Management Commissions (WMCs) annually monitor water quality in the lakes, streams, and outfalls of the watersheds. The Commissions' technical staff obtain the stream and some lake water quality, fisheries, and vegetation data while volunteers collect lake water quality and stream and wetland macroinvertebrate data.

Together the Shingle Creek and West Mississippi Watershed Management Commissions have established monitoring objectives to guide their monitoring programs. The following objectives have been established for stream, outfall, and lake monitoring in both watersheds:

- To quantify the current status of streams/outfalls and lakes (Shingle Creek only) throughout the watershed in comparison to state water quality standards established for nutrients, turbidity, chloride, bacteria, and other parameters currently regulated by the State.
- To quantify changes, over time, of trends in stream and lake water quality in the watersheds.
- To quantify the effectiveness of implemented BMPs throughout the watersheds for the protection of water quality.

Surface water quality in the watersheds is typical of urban lakes and streams in the Twin Cities metropolitan area. Agriculture, followed by urban development, has changed drainage patterns, increased pollutants to the waters, and reduced habitat for aquatic and terrestrial life. Both Shingle and Bass Creeks do not meet state water quality standards for chloride, bacteria, and dissolved oxygen, and have severely impacted fish and macroinvertebrate communities. Thirteen of the 16 lakes were originally listed as Impaired Waters of the State due to their high concentrations of phosphorus.

TMDLs and Implementation Plans have been approved for all the Impaired Waters and the Commission and member cities have been actively implementing improvements. Three lakes have subsequently been delisted, or removed, from the Impaired Waters list due to improved water quality. Two others now meet the standards and will be assessed for removal. Long-term stream monitoring shows a clear improvement in suspended sediment and nutrient concentrations in both



Shingle and Bass Creeks, a result of ongoing efforts to stabilize streambanks, increase the frequency of street sweeping, enhance erosion control on construction sites, and install Best Management Practices (BMPs) to treat stormwater before it is discharged into the streams. However, chloride concentrations in the streams, mostly from road salt applied in the winter for snow and ice control, continue to be high.

2021 monitoring activities in the two watersheds included stream and outfall monitoring and lake monitoring. Each monitoring effort is described later in this section.

### **STREAM MONITORING**

In 2021 three sites along Bass/Shingle Creek were monitored biweekly April-October: the outlet in Minneapolis (SC-0); mid-watershed in Brooklyn Park (SC-3); and in Bass Creek (BCP) in the upper watershed. Winter chloride was sampled monthly from November to March at the three locations and at the USGS gage site located near the outlet of Shingle Creek. Real-time data from that site is available through the USGS website: <http://waterdata.usgs.gov/mn/nwis/uv?05288705>.

Due to the COVID 19 pandemic volunteer stream macroinvertebrate monitoring, conducted through the Hennepin County RiverWatch program, was limited to only one site in fall 2021.

### **LAKE MONITORING**

Routine water quality monitoring in Cedar Island, Success, Bass, Pomerleau and Crystal lakes was conducted biweekly in 2021. Aquatic vegetation surveys were also conducted, once in late spring and once in late summer.

Thirteen of the sixteen lakes in Shingle Creek are periodically monitored for water quality by volunteers through the Citizen Assisted Monitoring program (CAMP). Volunteers in the program monitor their lake every other week from mid-April to mid-October. They measure surface water temperature, Secchi depth, and collect surface water samples that are analyzed by the Metropolitan Council for Total Phosphorus (TP), Total Kjeldahl Nitrogen (TKN), and chlorophyll-a. In 2021, Meadow, Schmidt, Magda, Eagle, and Pike lakes were monitored through CAMP.

Water quality monitoring in the lakes has helped our understanding of changes in lake health following management activities.

### **WETLAND MONITORING**

As was the case with the RiverWatch program, wetland monitoring for macroinvertebrate communities and vegetation did not occur in 2021 due to COVID-19. The Wetland Health Evaluation Program (WHEP) is administered by Hennepin County.

The Commission's 2021 *Water Quality Monitoring Report* provides more detail on the Commission's

stream and lake monitoring activities. The report will be forwarded to the Board of Water and Soil Resources as a companion to this report. It will also be available on the Commissions' website, [www.shinglecreek.org](http://www.shinglecreek.org).

## FINANCES

The Commission's Joint Powers Agreement provides that each member city contributes toward the annual operating budget based 50% on the area located within the watershed boundary and 50% on the tax capacity of all property within the watershed. The 2021 cost allocations to the members are shown as part of the 2021 Operating Budget found in *Appendix 6*.

Of the \$442,590 operating budget approved by the Commission for 2021 revenue consisting of \$23,000 in application fees and reimbursements, \$41,000 in program reimbursements, and \$15,000 in interest income resulted in assessments to members totaling \$363,590.

The 2020 Audit Report, which was prepared by Johnson & Company, Ltd., Certified Public Accountants, may be viewed on the Commission's website, [www.shinglecreek.org](http://www.shinglecreek.org). The 2021 Audit Report will be posted there after June 30, 2022.

The Commission follows Rule 54 of the Government Accounting Standard Board (GASB) to report Fund Balances. The fund balance classifications include:

- *Nonspendable* – amounts that are not in a spendable form. The Commission does not have any items that fit this category.
- *Restricted* – amounts constrained to specific purposes by their providers. One example would be ad valorem levy funds received from the County for capital improvement projects. The unused portion of these funds must be set aside in a restricted account for similar projects. Another example would be BWSR Legacy Grant proceeds where the funds are received prior to the onset of a project and where any unused portion must be returned to the grantor.
- *Committed* – amounts constrained to specific purposes by the Commission itself. An example would be residual funds carried over from one year to the next for Studies, Project Identification and Subwatershed Assessments.
- *Assigned* – amounts the Commission intends to use for specific purposes. Most line items in the Commission's Operating Budget fall under this category.
- *Unassigned* – amounts that are available for any purpose. These amounts are reported only in the general fund.

Amounts paid by the Commission per the Commission's 2020 Annual Audit are:

General engineering	127,887
General administration	99,315

Education	28,533
Programs	103,439
Projects	259,194
Capital Projects	<u>185,405</u>
Total	\$ 803,773

General engineering work includes review of local plans, review of development/ redevelopment projects, tracking grant opportunities, attendance at meetings and other technical services. General administration includes support to technical staff, attendance at meetings, insurance premiums, bookkeeping and annual audit, legal counsel, and other non-engineering services.

### PROJECTED 2022 WORK PLAN

The Shingle Creek Watershed Management Commission established its 2022 Work Plan at its January 13, 2022, meeting. Most of the activities of the Commission are ongoing, although some rotate around the watershed.

#### ➤ Continue to Implement TMDLs.

Complete the 5-year performance review for the Bass and Shingle Creek Biotic and DO TMDL.

Complete aquatic vegetation surveys on Bass Lake and provide aquatic invasive species treatment as necessary.

Continue to partner with the City of Robbinsdale to continue implementing the Crystal Lake Management Plan, including carp removal, aquatic vegetation management, and alum treatment.

Continue to partner with the City of New Hope to implement the Meadow Lake Management Plan, including potential additional vegetation and fish management and preparation for an alum treatment.

Continue to partner with the cities of Brooklyn Park and Brooklyn Center to undertake Connections II streambank improvements for Shingle Creek from Regent Avenue to Brooklyn Boulevard.

Continue to partner with the City of Brooklyn Park to undertake Bass Creek Park streambank improvements from Cherokee Drive to I-694.

If permission from MAC is secured, continue to partner with the City of Crystal to extend the SRP Reduction filter along the Wetland 639W overflow channel.

Continue to pursue grant funding for TMDL implementation projects.

Stay abreast of other regional and state TMDLs.



Expand the Directly Connected Untreated Areas geodatabase to include boundaries of the untreated areas directly connected to the lakes in the watershed. (Streams were completed in 2017.)

➤ **Partner with other organizations to increase reach and cost effectiveness.**

Participate in the West Metro Water Alliance joint education and outreach group.

Continue to partner with the USGS to operate the Queen Avenue monitoring site.

Partner with the USGS, DNR, and other interested parties to stay abreast of groundwater issues.

Complete the HUC study in partnership with the DNR.

➤ **Continue ongoing administration and programming.**

Conduct routine Commission lake water quality monitoring and aquatic vegetation and fish surveys on Magda and Ryan Lakes and grant funded monitoring on Crystal and Meadow Lakes.

Conduct Commission routine flow and water quality monitoring at SC-0 and SC-3 on Shingle Creek and Bass Creek Park (BCP) on Bass Creek as well as two DO longitudinal studies as part of the Shingle and Bass Creeks Dissolved Oxygen (DO) and Biotic Integrity TMDL 5 Year Review.

If available, sponsor volunteer stream monitoring through RiverWatch and wetland monitoring through WHEP (Hennepin County).

Sponsor volunteer lake monitoring through CAMP (Met Council) on Bass Lake and the three basins of Twin Lake.

Complete reviews of development and redevelopment projects as necessary.

Prepare an annual water quality report.

Solicit cost-share projects from member cities funded from the Cost Share Fund and the annual \$100,000 levy and the Partnership Cost Share Fund and the annual \$50,000 levy.

Review feasibility studies for 2022 proposed capital projects, undertake Plan Amendments, hold public hearings, order projects, and certify levies.

Prepare a 2023 annual budget.

Host a Convene Meeting for the 2022-2023 Watershed-Based Funding awarded to the Shingle Creek Partnership.

Complete the Fourth Generation Plan and submit for public and BWSR review.

Invite three guest speakers to make lunchtime water resources presentations.

Tour project sites in the watershed.

---

Have a question about this report? Need more information?

Want to know how to get involved?

Contact us: drop us an email, give us a call, we're happy to help:

<http://www.shinglecreek.org/contact-us.html>

## **APPENDICES**



## 2021 Commissioners

Representing	Name	Address	Telephone	Email	Term Expires Jan 31
Brooklyn Center	David Vlasin		651.792.7972	David.vlasin@rwmwd.org	2024
Brooklyn Park	Alex Prasch	6548 Georgia Avenue N Brooklyn Park, MN 55428	763.226.4711	alex.prasch@gmail.com	2024
Crystal	Burton Orred, Jr. Treasurer	6700 60th Avenue North Crystal, MN 55428	763.533.7808	burtssquirts@gmail.com	2024
Maple Grove	Karen Jaeger Secretary	8459 Rice Lake Road Maple Grove, MN 55369	763.420.3838	kjaeger@ci.maple-grove.mn.us	2022
Minneapolis	Ray Schoch	5146 Russell Avenue North Minneapolis, MN 55430	612.529.4954	rayeschoch@gmail.com	2022
New Hope	Bill Wills	6149 Gettysburg Avenue N New Hope, MN 55428	763.531.0788	wjw9416@msn.com	2022
Osseo	John Roach	12-Sixth Street NE #113 Osseo, MN 55369	763.315.4258	johnbp60@gmail.com	2023
Plymouth	Andy Polzin Chair	18605 29th Avenue North Plymouth, MN 55447	952.832.2938	rapolzin@msn.com	2023
Robbinsdale	Wayne Sicora Vice Chair	3706 Abbott Avenue North Robbinsdale, MN 55422	763.522.8165	wayne.sicora@erm.com	2023



## 2021 Technical Advisory Committee

Representing	Name	Address	Telephone	Email
Brooklyn Center	Andrew Hogg	6301 Shingle Creek Parkway Brooklyn Center, MN 55430	763.569.3327	ahogg@ci.brooklyn-center.mn.us
Brooklyn Park	Mitchell Robinson	5200 85th Avenue North Brooklyn Park, MN 55443	763.493.8291	mitCHEll.robinson@brooklynpark.org
Crystal	Mark Ray	4141 Douglas Drive Crystal, MN 55422	763.531.1160	mark.ray@ci.crystalmn.gov
Maple Grove	Derek Asche	12800 Arbor Lakes Parkway Maple Grove, MN 55313	763.494.6354	dasche@ci.maple-grove.mn.us
Minneapolis	Elizabeth Strout	City of Lakes Building #300, 309 Second Avenue South Minneapolis, MN 55401	612.673.5284	Elizabeth.Strout@minneapolismn.gov
New Hope	Megan Hedstrom	5500 International Parkway New Hope, MN 55428	763.592.6765	mhedstrom@newhopemn.gov
Osseo	Nick Waldbillig	415 Central Avenue Osseo MN 55369	763-425-5741	nwaldbillig@ci.osseo.mn.us
Plymouth	Ben Scharenbroich	3400 Plymouth Boulevard Plymouth, MN 55447	763.509.5527	bscharenbroich@plymouthmn.gov
Robbinsdale	Richard McCoy	4100 Lakeview Avenue North Robbinsdale, MN 55422	763.531.1260	rmccoy@ci.robbinsdale.mn.us

## 2021 Shingle Creek Commission Staff

Name	Address	Telephone	Email
Technical			
Ed Matthiesen	Wenck Associates, Inc.	763.252.6851	edward.matthiesen@stantec.com
Diane Spector	7500 Highway 55 Ste 300	763.252.6880	diane.spector@stantec.com
Todd Shoemaker	Golden Valley, MN 55427	651.294.4585	todd.shoemaker@stantec.com
Katie L. Kemmitt		763.252.6879	katie.kemmitt@stantec.com
Legal			
Troy Gilchrist	Kennedy & Graven, 470 Pillsbury Center Minneapolis, MN 55402	612.337.9214	tgilchrist@kennedy-graven.com
Administrative			
Judie Anderson	JASS	763.553.1144	<u>judie@jass.biz</u>
Amy Juntunen	3235 Fernbrook Lane		amy@jass.biz
Beverly Love	Plymouth, MN 55447		beverly@jass.biz



## AMENDMENTS TO THE JOINT WATERSHED MANAGEMENT PLAN

In 2013 the Shingle Creek and West Mississippi Watershed Management Commissions adopted their joint *2013-2022 Third Generation Watershed Management Plan*. The Plan sets forth goals and strategies that will guide water resources management activities in the two watersheds over the coming decade. Over the years the Commission, either individually or together with the Shingle Creek Commission, has adopted a number of amendments to the Plan. They are described below:

In 2013 the Commissions adopted a minor amendment to the Plan which revised the Commissions' Rules and Standards to adopt the new National Oceanic and Atmospheric Administration (NOAA) Atlas 14 precipitation frequency standards, replacing the outdated Weather Bureau Technical Paper 40 (TP-40) standards.

In 2014 the Commissions adopted a second minor amendment to the Plan. It revises the estimated cost and provides more description and detail about one proposed Shingle Creek project in the Commissions' Capital Improvement Program (CIP).

In December 2014 the Commissions adopted a major amendment to the Plan which added five projects to the Commissions' CIP - three pond retrofits in the Shingle Creek watershed and Priority BMP Retrofits in both watersheds.

On May 14, 2015, the Commissions adopted a minor Plan amendment to 1) increase the annual levy for city cost-share projects from \$50,000 to \$100,000, 2) increase the (Shingle Creek) Commission cost share for lake internal load projects from 25% to 100%; and 3) specify that the potential 2015 lake internal load project (in the Shingle Creek watershed) would be the proposed Twin Lake Carp Tracking and Removal project.

On November 12, 2015, the Commissions amended their joint *Third Generation Watershed Management Plan* to adopt a revision to the plan amendment process to conform to 2015 revisions to MN Rules 8410. In part, the revisions will allow the Commission to modify the CIP with only minimal need for plan amendments.

On June 9, 2016, the Commissions adopted a minor amendment to the Plan which amended the Shingle Creek 2016 CIP to include: 1) an annual levy for city cost-share projects of \$200,000 with Commission cost-share of \$100,000; 2) Iron and Biochar-Enhanced Sand Filter Retrofits of \$210,000 with Commission cost-share at 100%; and 3) Partnership cost share (private projects) of \$100,00, with Commission cost-share of \$50,000; and further amended the West Mississippi 2016 CIP to include: 1) an annual levy for city cost-share projects of \$50,000 with Commission cost-share at 100%; and 2) Iron and Biochar-Enhanced Sand Filter Retrofits of \$80,000 with Commission cost-share at 100%.

On May 11, 2017, the Commissions adopted a seventh minor amendment to their joint Plan. In Shingle Creek a second phase to the Reaeration Project was added to the CIP at



**AMENDMENTS TO THE JOINT WATERSHED MANAGEMENT PLAN, *cont'd.***

a project cost/Commission contribution of \$145,000; and specificity of description was added to the Shingle/Bass Creek project, now known as the Palmer Creek Estates Bass Creek Stream Restoration. Three other projects were moved to future years. In West Mississippi the 2017 CIP was revised to move three projects to future years.

On May 10, 2018, the Commissions adopted a minor amendment to the Plan which amended the Shingle Creek CIP to substitute the Bass and Pomerleau Lakes Alum Treatment Project for the generic Lake Internal Load Project in 2018 and added the SRP Reduction Project to the CIP, also in 2018. Two other projects were moved to future years. No revisions were made to the West Mississippi CIP.

On May 9, 2019, the Commission adopted the first of four new amendments to the Plan. The first amendment revised the CIP to add specificity to a project and to revise certain cost-share policies.

The second, adopted August 8, 2019, revised the CIP to reschedule and add specificity to a project and to adopt a cost-share policy for capital improvements.

The third amendment, adopted September 12, 2019, ordered four improvements, designating the members responsible for construction and certifying them for ad valorem levy. One improvement, City Cost Share Best Management Practices (BMP) Projects (\$53,025.00), was located in the West Mississippi watershed.

On October 10, 2019, the Plan was amended to add one West Mississippi project— River Park Storm Approvements - to its 2020 CIP.

The joint Plan was not amended in 2020.

On May 13, 2021, the Commissions adopted a minor amendment to the Plan which amended the Shingle Creek CIP to increase the cost of the existing Palmer Lake Estates Bass Creek Restoration Project from \$450,000 to \$600,000 and the Commission share to 100% of the project cost and to add "Channel Modification with SRP Filter Phase 2." This is the second phase of a project to install a media filter in a wetland outlet channel to reduce phosphorus to Upper Twin Lake. Cost: \$125,000. One project was added to the West Mississippi CIP: "Partnership Cost Share Projects." This program shares in the cost of Best Management Practices (BMPs) partnership projects with private landowners. Cost: \$100,000.



### **Local Plan Requirements**

Local water plans must be prepared by metropolitan cities and towns (municipalities) and a local water plan must become part of the local comprehensive plan for a municipality.

- Under the amended rule, local water plans must be revised essentially once every ten years in alignment with the local comprehensive plan schedule.
- A municipality has two years before its local comprehensive plan is due to adopt its local water plan.
- Prior to adoption, a municipality must prepare its local water plan, distribute it for comment, and have it approved by the organization with jurisdiction in the municipality.
- Local water plans may be updated more frequently by a municipality at its discretion.

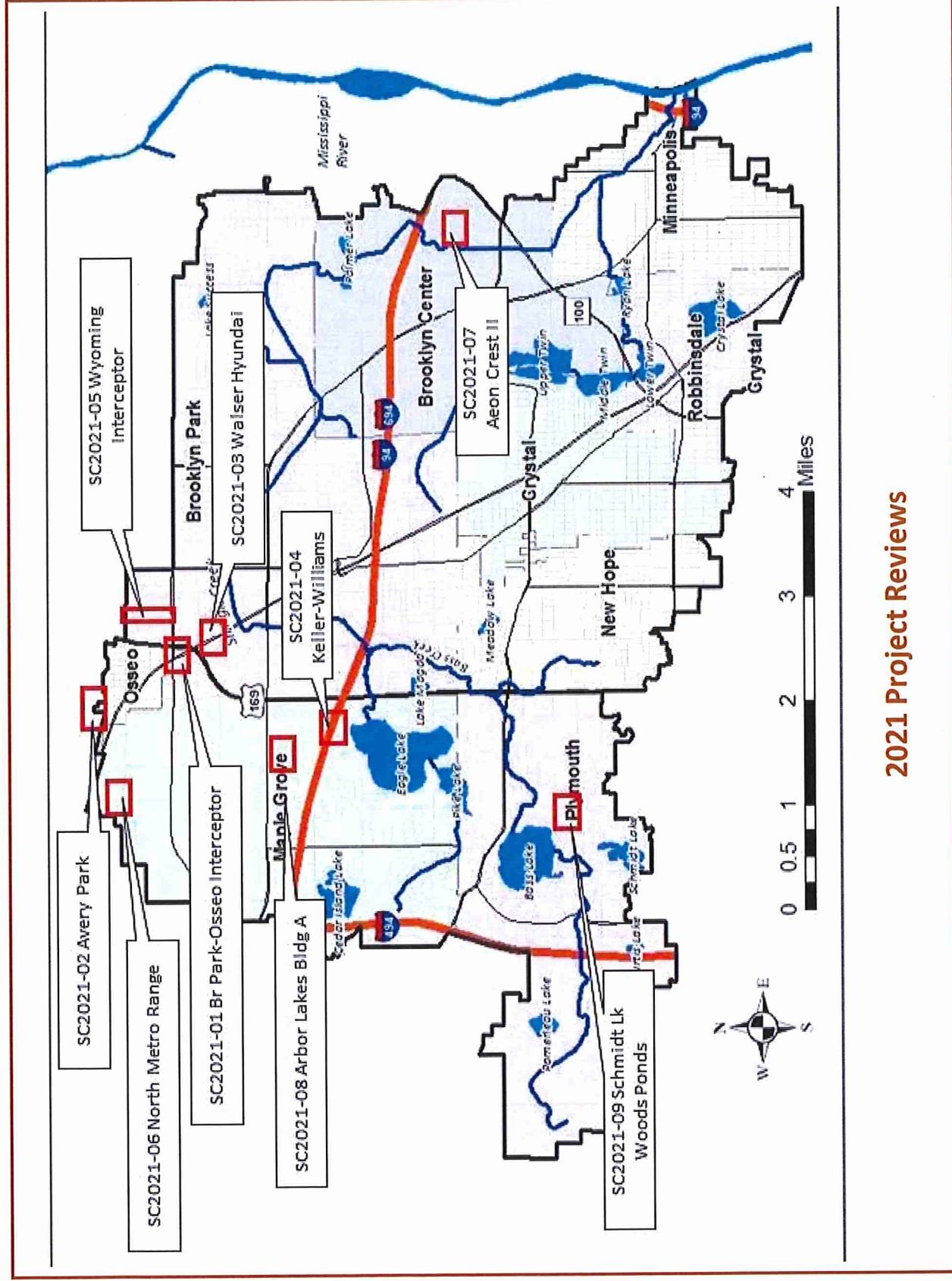
At a minimum, cities in their Local Plans are required to do the following:

1. Update the existing and proposed physical environment and land use. Information from previous plans that has not changed may be referenced and summarized but does not have to be repeated. Local Plans may adopt relevant sections of the Commission's Watershed Management Plan (WMP) Section 2.0 Inventory and Condition Assessment by reference unless the member city has more recent information.
2. Update the existing and proposed hydrology and provide subwatershed, storm rain gage system, and installed BMP figures and Shapefiles.
3. Explain how the goals and policies and rules and standards established in the WMP will be implemented at the local level.
4. Show how the member city will take action to achieve the load reductions and other actions identified in and agreed to in TMDL Implementation Plans, including identifying known upcoming projects, including street reconstruction projects, that will provide opportunities to include load and volume reduction BMPs.
5. Explain how the City will implement the City Review project review requirements of the revised Rules and Standards.
6. Update existing or potential water resource related problems and identify nonstructural, programmatic, and structural solutions, including those program elements detailed in Minnesota Rules 8410.0100, Subp. 1-6.
7. Summarize the estimated cost of implementation.
8. Set forth an implementation program including a description of adoption or amendment of official controls and local policies necessary to implement the Rules and Standards; programs; policies; and a capital improvement plan.



## 2021 Project Reviews

Number	Project	City	WCA LGU	Project Description	Impervious Area	Approved
SC2021-001	Brooklyn Park-Osseo Interceptor	Brooklyn Park	Comm	Lining and replacement of sewer pipe and trail construction on 0.67 acres	0.41 acres impervious with no change in impervious area	11-Feb-21
SC2021-003	Walser Hyundai	Brooklyn Park	Comm	Redevelopment of two existing car dealerships into single building, parking lots, utility improvements on 5.1 acres	83.4% impervious, following redevelopment 78.6% impervious - 4.0 acres - decrease of 0.25 acres	10-Jun-21
SC2021-004	Keller Williams	Maple Grove	City	Construction of office building, parking lots, utilities, and stormwater treatment on 4.6 acres	Following development, site will be 35.8% impervious - 1.65 acres impervious - increase of 1.65 acres	10-Jun-21
SC2021-005	CenterPoint - Wyoming Avenue	Brooklyn Park	Comm	Installation of plastic and steel natural gas pipeline, new regulator station on 4.9 acres	no increase in impervious area	10-Jun-21
SC2021-006	North Metro Range	Maple Grove	City	Construction of multipurpose training area, shooting bay, entrance drive, and parking lot expansion on 3.76 acres	Following development - 53% impervious with 2.0 acres impervious surface, increase of 1.4 acres	14-Oct-21
SC2021-007	Aeon Crest II	Brooklyn Center	Comm	Construction of new apartment building on 3.25 acres	Following development - 69.2% impervious - 2.25 acres impervious surface- increase of 0.86 acres	12-Aug-21
SC2021-008	Arbor Lakes Business Park Building A	Maple Grove	City	Construction of one commercial building on 76.4 acres	Following development - 30% impervious with 12.3 acres impervious - increase of 12.3 acres	9-Sep-21
SC2021-009	Schmidt Lake Woods Drainage Improvement Project	Plymouth	City	Channel reconstruction and maintenance on 4.65 acre site	Following development, site will be 0% impervious, an increase of 0 acres	4-Nov-2021



## 2021 Project Reviews



## 2021 Education and Public Outreach

Due to the pandemic, in 2021 the West Metro Water Alliance (WMWA), focused on the new requirements of the National Pollutant Discharge Elimination System (NPDES) permit program. Together, the members developed three flyers with educational content regarding pet waste, chlorides/salt, and illicit discharge. They appear on the following pages and can be downloaded from WMWA's website, <http://www.westmetrowateralliance.org/>.

WMWA is a consortium of four WMOs including the Elm Creek Watershed Management Commission and the Bassett Creek, Shingle Creek, and West Mississippi WMOs.

In 2021 the WMWA Work Plan was updated to reflect current practices. The updated Work Plan includes the following major revisions:

1. Added an equity statement affirming the group's commitment to environmental justice for all and outreach to historically underrepresented groups.
2. Revised the general educational goals for non-single family property owners and managers to focus solely on providing information and guidance on appropriate BMPs.
3. Removed educational goals for developers as cities were seen as being the most appropriate points of contact with these stakeholders.
4. Removed educational goals for training city staff, as those are the responsibility of the cities.
5. Removed educational goals for agricultural property owners and operators as Hennepin County staff have taken on that role acting as the county Soil and Water Conservation District.
6. Added a key educational goal for all the stakeholders to "understand the relationship between climate and water quality and water quantity."
7. Revised the plan to replace references to the Hennepin County website with the WMWA website.
8. Eliminated Measuring and Monitoring Public Awareness as a major task. One of WMWA's first activities was sponsoring a professional opinion poll in the four watersheds regarding knowledge and behaviors. WMWA does not expect to repeat that poll due to cost but will build measuring and evaluating into individual activities.
9. Strengthened the Communication and Information Sharing activity to incorporate the website and social media.
10. Eliminated the Develop and Coordinate Regional or Countywide Activities task. Early on, WMWA had sponsored a series of workshops for broader participation but found it to be an inefficient use of time and resources. The group will focus on spreading information about existing activities sponsored by other groups.

## PET WASTE & WATER POLLUTION



Dog waste left on the ground washes into storm drains, lakes and streams, exposing people, pets and wildlife to harmful bacteria.

### Good Neighbors Care About Clean Water

There are an estimated **310,000 dogs** in Hennepin County, and they create over **40,000 tons of waste** per year — that's a lot of poop!

This poop causes bacteria, excessive algae growth, and other water quality issues in our communities, so city ordinances require owners to clean up dog waste. This is also the neighborly thing to do to make sure we can all enjoy our local wetlands, lakes, and streams.

#### How does pet waste in my yard pollute water?

Dog waste contains harmful bacteria and parasites. When waste is left on lawns or not picked up, it is washed by the next rainstorm into the nearest lake or stream. Wading, swimming, or playing in bacteria-laden waters can be harmful to humans and pets alike. Pet waste also contains nutrients that promote weed and algae growth in lakes and rivers. Picking up pet waste keeps recreation areas clean, safe, and enjoyable.

#### What about all the other animals?

It is true that squirrels, birds and other wildlife can also contribute to water pollution. However, these animals tend to spread out waste across the landscape, whereas dog waste is concentrated in yards and along sidewalks or paths.

#### How can I be a good neighbor?

Pick up dog waste from your yard and throw it in the garbage — it is not a fertilizer. Carry disposable bags while walking your dog. Do the same at the dog park — don't make it somebody else's problem.

#### NEED MORE INFORMATION?

For more information regarding the information in this flier, visit:  
[westmetrowateralliance.org/pet-waste](https://westmetrowateralliance.org/pet-waste)



**WMWA**  
WEST METRO WATER ALLIANCE

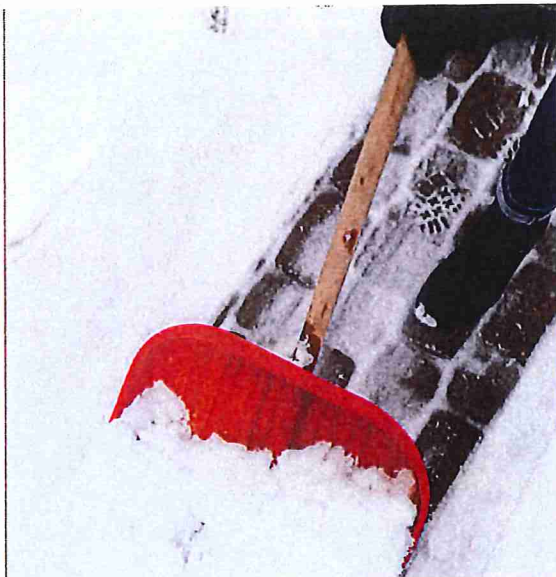


## SNOW AND ICE CARE

### Help Keep Our Water Clean!

Salt use has been on the rise since the 1950s, leading to waters becoming increasingly salty. Chloride levels have become so high, many creeks and lakes are now considered unhealthly.

Chlorides harm plants and animals, contaminate drinking water, damage buildings, corrode vehicles, roads and bridges. Too much salt can lead to costly damages and environmental consequences!



#### **Help keep our waters clean with these simple steps:**

1. Clear walkways of snow to minimize ice build-up.
2. Temperature matters. If the temperature is below 15 degrees, salt doesn't work effectively. Consider using sand for traction.
3. Scatter salt where it's critical. Leave about 3 inches between grains of salt. A 12-ounce coffee cup of salt is enough to cover 10 sidewalk squares or a 20-foot driveway.
4. Sweep up leftover salt, sand and deicer to reuse as needed.

Created in collaboration with MN Water Let's Keep it Clean, the West Metro Water Alliance and the Nine Mile Creek Watershed District.





## WATER SOFTENERS & THE ENVIRONMENT

### FOR MORE INFORMATION

West Metro Water Alliance  
westmetrowateralliance.org/water-softeners

Minnesota Department of Health  
healthstate.mn.us

Minnesota Pollution Control Agency  
pca.state.mn.us/water/chloride-salts

Water softeners add salt to the water. All the salt we use goes into our lakes and streams. It takes only one teaspoon of salt to permanently pollute five gallons of water, making it too salty for many freshwater organisms.

### Do I Really Need a Water Softener?

#### It depends!

Most of the groundwater in the Twin Cities is hard, meaning it has a high mineral content. Some cities pre-soften drinking water, while other cities leave water softening up to individual property owners.

If you live in a community that softens the drinking water, the water is already optimally softened so you do not need a water softener.

#### Cities in Hennepin County that soften drinking water:

- Minneapolis
- Golden Valley
- Bloomington
- New Hope
- Crystal
- Robbinsdale\*
- Eden Prairie
- Tonka Bay
- Richfield
- Excelsior
- Saint Paul\*\*

\*Starting fall 2022

\*\*Not in Hennepin County

If you live in Hennepin County and don't see your city on the list, chances are your water is not pre-softened. There is no requirement to soften your water, but you may wish to use a water softener to reduce your water's hardness. Contact your city to get information about the specific hardness of your water.

Have a private well? Use a test kit to test your water's hardness.

### FACTS ABOUT WATER SOFTENERS

- ▶ Water softeners are used to reduce the hardness of water. This helps prevent mineral deposits on pipes, appliances, and glassware.
- ▶ Most softeners are ion-exchange systems. Hardness ions (calcium and magnesium) are exchanged for salt (sodium or potassium chlorides).

### What Can I Do?

**Determine if you really need one.** If your water's hardness is less than **7 grains per gallon** (120 mg/L), you probably don't need a water softener. Contact your city for hardness information or use a test kit.

**Reduce the salt.** Only soften water that needs it. Don't soften water to outside spigots or cold water taps. Only soften to 5 grains per gallon — over-softening wastes salt and can corrode pipes. Check your unit's settings and adjust if they're too high.

**Adjust the timer.** If you have a timer-based softener, hire a professional to have it optimized or consider upgrading to a more efficient system.

**Upgrade to a high-efficiency softener.** If you're buying or upgrading a softener, look for one that has high salt-efficiency and is demand-initiated. You may pay a little more upfront, but you'll save on salt.

**Filter out the iron.** If you have a problem with iron, consider using an iron filter.

**Conserve water.** Reducing your overall water use has environmental and economic benefits.

**WMWA**  
WEST METRO WATER ALLIANCE

**Shingle Creek Watershed Management Commission**  
**2021-2022 Operating Budgets**

		Approved 2021 Budget	Approved 2022 Budget
<b>REVENUE</b>			
1	Application Fees	\$20,000	\$20,000
2	Member Assessments	363,590	363,590
3	Blue Line Extension	0	0
4	Interest	20,000	5,000
	<b>TOTAL REVENUE</b>	<b>\$403,590</b>	<b>\$388,590</b>
<b>EXPENSES</b>			
<b>ADMINISTRATION</b>			
5	Administrative Services	\$71,000	\$71,000
6	Engineering Support	17,000	17,000
7	Project Reviews/WCA	1,500	1,500
	<b>Subtotal</b>	<b>\$89,500</b>	<b>\$89,500</b>
<b>ENGINEERING</b>			
9	Engineering Services	75,000	75,000
10	Grant Application Writing	11,000	12,000
11	Project Reviews/WCA	44,000	43,000
13	TMDL 5 Year Reviews	10,000	5,000
	<b>Subtotal</b>	<b>\$140,000</b>	<b>\$135,000</b>
<b>LEGAL</b>			
14	Legal Services	\$5,500	\$5,500
<b>MISCELLANEOUS</b>			
15	Bookkeeping	7,000	8,000
16	Audit	6,500	6,500
17	Insurance & Bonding	3,100	3,200
18	Meeting Expense	5,000	5,000
	<b>Subtotal</b>	<b>\$21,600</b>	<b>\$22,700</b>
<b>PROGRAMS</b>			
<b>Monitoring</b>			
19	Stream Monitoring	36,000	35,000
20	Stream Monitoring-USGS	4,200	4,200
21	Commission Lake Monitoring	24,000	28,000
22	Citizen Assisted Lake Monitoring	3,800	4,800
23	Vol Wetland Monitoring	2,000	2,000
24	Vol Stream Monitoring	1,000	1,000
25	Annual Monitoring Report	16,000	16,000
	<b>Subtotal</b>	<b>\$87,000</b>	<b>\$91,000</b>

**Shingle Creek Watershed Management Commission**  
**2021-2022 Operating Budgets**

		Approved 2021 Budget	Approved 2022 Budget
	<i>Water Quality Education</i>		
26	Education Program	15,000	16, 500
27	Education Grants	500	0
28	WMWA Admin/Tech: SC Share	5,000	5,000
29	WMWA Impl Activities: SC Share	2,000	2,000
30	Rain Garden Workshops: SC Share	2,000	0
31	WMWA Educators: SC Share	4,500	4,500
	<b>Subtotal</b>	<b>\$29,000</b>	<b>\$28,000</b>
	MANAGEMENT PLANS		
32	3 <sup>rd</sup> Gen Plan/Plan Amendments	0	1,000
33	Subwatershed BMP Assessment	10,000	0
	<b>Subtotal</b>	<b>\$10,000</b>	<b>\$1,000</b>
	PROJECTS		
34	Contribution to 4 <sup>th</sup> Generation Plan	0	0
35	To/(From) Reserves	20,990	15,890
	<b>Subtotal</b>	<b>\$20,990</b>	<b>\$15,890</b>
	<b>TOTAL OPERATING EXPENSE</b>	<b>\$403,590</b>	<b>\$388,590</b>



## Shingle Creek Watershed Management Commission

### Member Assessments – 2021 - 2022

2021 Community	Acreage	2020 Tax Capacity	Cost Allocation		Cost Based		Total Cost	
			Based on Area		on Tax Capacity			
			%age	Dollars	%age	Dollars	%age	Dollars
Brooklyn	3,720	19,082,171	13.07%	23,762.382	10.55%	19,174.501	11.81%	42,936.88
Brooklyn Park	7,080	41,288,026	24.88%	45,225.179	22.82%	41,487.799	23.85%	86,712.99
Crystal	2,480	13,455,117	8.71%	15,841.588	7.44%	13,520.220	8.08%	29,361.81
Maple Grove	5,020	35,903,298	17.64%	32,066.441	19.84%	36,077.017	18.74%	68,143.46
Minneapolis	1,950	12,300,200	6.85%	12,456.087	6.80%	12,359.715	6.83%	24,815.80
New Hope	2,070	16,231,998	7.27%	13,222.616	8.97%	16,310.537	8.12%	29,533.15
Osseo	300	2,201,981	1.05%	1,916.321	1.22%	2,212.635	1.14%	4,128.96
Plymouth	4,380	30,147,065	15.39%	27,978.289	16.66%	30,292.932	16.03%	58,271.22
Robbinsdale	1,460	10,309,759	5.13%	9,326.096	5.70%	10,359.643	5.41%	19,685.74
<b>Total</b>	<b>28,460</b>	<b>180,919,615</b>	<b>100%</b>	<b>181,795</b>	<b>100%</b>	<b>181,795</b>	<b>100%</b>	<b>363,590</b>

2022 Community	Acreage	2021 Tax Capacity	Cost Allocation		Cost Based		Total Cost	
			Based on Area		on Tax Capacity			
			%age	Dollars	%age	Dollars	%age	Dollars
Brooklyn Center	3,720	20,453,640	13.07%	23,762.382	10.58%	19,230.292	11.82%	42,992.67
Brooklyn Park	7,080	44,158,668	24.88%	45,225.179	22.84%	41,517.503	23.86%	86,742.68
Crystal	2,480	14,200,096	8.71%	15,841.588	7.34%	13,350.777	8.03%	29,192.37
Maple Grove	5,020	38,788,473	17.64%	32,066.441	20.06%	36,468.504	18.85%	68,534.94
Minneapolis	1,950	13,204,556	6.85%	12,456.087	6.83%	12,414.781	6.84%	24,870.87
New Hope	2,070	17,617,989	7.27%	13,222.616	9.11%	16,564.243	8.19%	29,786.86
Osseo	300	2,345,474	1.05%	1,916.321	1.21%	2,205.189	1.13%	4,121.51
Plymouth	4,380	31,478,480	15.39%	27,978.289	16.28%	29,595.727	15.83%	57,574.02
Robbinsdale	1,460	11,112,638	5.13%	9,326.096	5.75%	10,447.982	5.44%	19,774.08
<b>Total</b>	<b>28,460</b>	<b>193,360,014</b>	<b>100%</b>	<b>181,795</b>	<b>100%</b>	<b>181,795</b>	<b>100%</b>	<b>363,590</b>

