



Shingle Creek Watershed Management Commission

2020 Annual Activity Report

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

Questions regarding this report should be directed to
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We gratefully acknowledge the assistance of
Diane Spector and Katie Kemmitt, Wenck/Stantec

Cover photograph:

SRP Reduction Project. 2020 marked the second year of SRP monitoring at wetland 639W, just upstream of Upper Twin Lake in Crystal. Monitoring results are less pronounced than in 2019, but the incoming SRP (soluble reactive phosphorus) concentrations are also lower than last year. The outlet box design was modified slightly to provide a method of keeping large debris from being swept into the box.

2020 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 2020.

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 2020 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 at the Clubhouse at Edinburgh, USA, 8700 Edinbrook Crossing, Brooklyn Park. The meetings are open to the public. Meeting notices, agendas and approved minutes are posted on the Commission's website, www.shinglecreek.org. In 2020, due to the COVID-19 pandemic, Commission meetings were held virtually on 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 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*.

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 2020 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 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 2020 Work Plan at its January 9, 2020 meeting. Highlights include:

- **DEVELOPMENT PROJECTS**

Complete reviews of development and redevelopment projects as necessary. *Thirteen projects were reviewed by the Commission in 2020. 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. *Completed routine flow and water quality monitoring on Shingle and Bass Creeks at three locations and partnered with the USGS to maintain the Shingle Creek real-time site at Queen Avenue.*

Compiled data and completed two DO longitudinal surveys on Bass and Shingle Creeks for the Biotic and DO TMDL 5-year review.

Partnered with the cities of Brooklyn Park and Brooklyn Center to undertake streambank improvements for Shingle Creek from Regent Avenue to Brooklyn Boulevard. Developed concepts and 30% design. Prepared and submitted a Clean Water Find grant application for the Shingle Creek Connections II stream restoration project. This project was not funded; however, the Commission did receive a total of \$110,000 Watershed-Based Implementation Funding for this and the Meadow Lake Management Plan project.

Partnered with the City of Brooklyn Park to prepare a Feasibility Study for streambank

improvements for Bass Creek from Cherokee Drive to I-694 and submit a grant application for partial funding.

Monitored effectiveness of the SRP Reduction site treatment system and presented results at the MN Water Resources Conference and the North American Lake Management Society annual meetings. Prepared a Feasibility Study to extend the SRP Reduction filter along the length of the Wetland 639W overflow channel and submitted a grant application for partial funding.

Volunteer stream monitoring through RiverWatch and wetland monitoring through WHEP (Hennepin County) did not occur in 2020 due to COVID-19.

- **LAKE MONITORING**

Undertake routine and special project water quality monitoring on watershed lakes.

Routine monitoring occurred on Eagle, Pike, Crystal, Bass and Pomerleau lakes. While Lower Twin, Ryan, and Schmidt Lakes have been delisted from the draft Impaired Waters list, the Commission has a stretch goal of achieving delisting for Bass, Eagle, Crystal, and Middle Twin lakes.

Completed the first routine collection of zooplankton and phytoplankton samples on Meadow, Crystal, Bass, Pomerleau, Eagle, and Pike lakes, and curly-leaf pondweed delineations on Bass and Pomerleau lakes.

Performed aquatic vegetation surveys on Eagle, Pike and Crystal lakes.

Completed a turtle survey on Meadow Lake.

Worked with the City of New Hope and Meadow Lake Watershed Association to undertake a Meadow Lake Management Plan feasibility analysis and submitted a Clean Water Fund grant application. Collected baseline, pre-drawdown SAV, sediment, zooplankton, and fish community data. This project did not receive CWF funding, however, the Commission did receive a total of \$110,000 Watershed-Based Implementation Funding for this and the Connections II project.

Worked with the City of Plymouth to undertake a second round of alum treatments on Bass and Pomerleau Lakes and provided aquatic invasive species treatment on Bass Lake.

Began work on the Crystal Lake Management Plan (319 Grant Project). Collected sediment cores, completed a carp biomass survey and population study on Crystal Lake, monitored SAV, and began planning for the Spring 2021 alum treatment 2021 carp removal. Alum treatments have significantly improved water quality in Bass and Pomerleau Lakes, and it is hoped there will be a similar result in Crystal Lake. Removed carp from Ryan Creek in 2020.

Sponsored volunteer lake monitoring through CAMP (Met Council) on Upper, Middle, and Lower Twin, Ryan, Meadow, and Success Lakes.

- **STUDIES**

Continue to work with the 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 estimated additional cost would be \$13,000, funded from the Closed Projects Account. The agreement between the parties extends through March 31, 2021.*

Partnered with the City of Minneapolis to finalize work on a subwatershed BMP assessment for that part of Minneapolis that is within the Shingle Creek watershed. 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 pre-1984 development Shingle Creek watershed will have been completed when the Minneapolis Subwatershed Assessment is completed. A more achievable goal would be 15%.

- **COST SHARE PROJECTS**

Solicited 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 January, the Commission approved \$20,000 in cost share funds for Brooks Landing Senior Apartments in the City of Brooklyn Park. Various site improvements, including raingardens, stormwater treatment, and adding some amenities will be constructed on the site. Upon receipt of a revised plan, the Commission approved an additional \$10,000 of funding at their February meeting.*
- *The City of Crystal submitted a City Cost Share Program application for its West Broadway Stormwater Infiltration Project at 5747 West Broadway. The request was for \$50,000; the total estimated project cost is \$400,000. The project will infiltrate runoff that is currently discharged untreated into the Bass Lake Road trunk system that flows to Upper Twin Lake. The Commission approved the full cost-share amount of \$50,000 at their May meeting.*
- *At their July meeting, the Commission approved a Cost Share application on behalf of Crescent Cove, a children’s respite care and hospice facility on the north end of Upper Twin Lake in Brooklyn Center. The grant will create a play area that is mostly within the 100-year floodplain and convert the adjacent existing non-native landscape to a diverse native planned community that creates an ecologically appropriate wetland buffer. The Commission awarded \$50,000 for this project.*

- **CAPITAL PROJECTS**

Review feasibility studies for 2020 proposed capital projects, undertake Plan Amendments, hold public hearings, order projects, and certify levies. *The joint Commissions conducted a public hearing on September 10, 2020 to consider six Shingle Creek and three West Mississippi projects for County levy in 2020 for collection in 2021. The cost of the six Shingle Creek projects is estimated to be \$1,750,000; the total levy amount is \$1,405,165. The six projects with their estimated costs and total levy amounts are:*

- *City Cost Share Projects, unidentified watershed-wide, \$200,000, \$106,000*
- *Connections II Stream Restoration, Brooklyn Center and Brooklyn Park, \$400,000, \$424,200*
- *Plymouth Street Sweeper, Plymouth, \$350,000, \$79,540*
- *Meadow Lake Management Plan, New Hope, \$300,000, \$318,150*
- *Bass Creek Restoration, Brooklyn Park, \$400,000, \$424,200*
- *Partnership (private) Cost Share Projects, unidentified watershed-wide, \$50,000, \$53,025*

- **EDUCATION AND PUBLIC OUTREACH**

Participate in the West Metro Water Alliance joint education and outreach group. The West Metro Water Alliance continued its successful Watershed PREP classes. *About 572 fourth grade students in 21 classrooms participated in classroom lesson one (What is a watershed?) in 2020, and 172 of those students in seven classrooms learned lesson two (The incredible journey). The onset of the pandemic curtailed in-class participation beyond March 2020. Lesson one was converted into a virtual on-line learning experience and 290 students in ten classrooms in three schools participated virtually. (Those 290 students are included in the 572-student total above.)*

Invite three guest speakers to make lunchtime water resources presentations.

- *In February, ReNae Bowman, Master Water Steward Appointee, presented her Capstone Project designed to evaluate and revitalize the City of Crystal's 125 rain-gardens and offer alternative runoff abatement methods to those without raingardens.*
- *Dr. Richard Kiesling, USGS, spoke about Advanced BMPs for Emerging Contaminants at the Commission's March meeting.*
- *In June, Stephen Mastey, Landscape Architects, presented the Twin Lake North Condominium parking lot BMP project.*

Tour project sites in the watershed. *Due to COVID-19 and the need for social distancing, no tours were conducted in 2020.*

Prepare an annual water quality report.

- **ADMINISTRATION AND OPERATIONS**

Prepare a 2021 annual operating budget and begin scoping the Fourth Generation Management Plan, which will be completed in 2022. *On June 11, 2020, the Commission adopted a \$442,590 operating budget for 2021. Assessment to the members totaled \$363,590, a zero increase over 2020. See Appendix 5 to view the 2021 budget.*

Update the project list previously provided to Hennepin County Commissioner Mike Opat, (the “State of the Watershed”). *This task was not completed in 2020.*

A solicitation of interest proposals for technical, legal, and administrative services was last published in the January 14, 2019 edition of the *State Register*. The current providers are listed in *Appendix 1*. *This biennial process will be repeated in 2021.*

- **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 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.

2020 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 also 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, or 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 have 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. 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 installing 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.

2020 monitoring activities in the two watersheds included stream and outfall monitoring, lake monitoring, and volunteer lake monitoring. Each monitoring effort is described later in this section.

STREAM MONITORING

In 2020 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-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, did not occur in 2020.

LAKE MONITORING

Routine water quality monitoring in Eagle and Pike lakes was conducted biweekly in 2020. 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 Met Council for Total Phosphorus (TP), Total Kjeldahl Nitrogen (TKN), and chlorophyll-a. In 2020, Twin, Ryan, Success and Meadow lakes were monitored through CAMP.

As part of two grant projects, Bass and Pomerleau Lakes were monitored biweekly for water quality. Bass and Pomerleau, which have both been listed as impaired for nutrients, are undergoing active management. Water quality in Crystal Lake was monitored biweekly during the 2020 field season. 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 2020 due to COVID-19. The Wetland Health Evaluation Program (WHEP) is administered by Hennepin County.

The Commission's 2020 *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.

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 2020 cost allocations to the members are shown as part of the 2020 Operating Budget found in *Appendix 5*.

Of the \$443,590 operating budget approved by the Commission for 2020 revenue consisting of \$24,000 in application fees and reimbursements, \$41,000 in program reimbursements, and \$15,000 in interest income resulted in assessments to members totaling \$363,590.

An amendment of Minnesota Rules, Chapter 8410 became effective on July 13, 2015. One of the revisions to the Rules extends the annual audit due date to 180 days after the end of the fiscal year, in the case of the Shingle Creek Commission, to June 30, 2021. The 2019 Audit Report, which was prepared by Johnson & Company, Ltd., Certified Public Accountants, may be viewed on the Commission's website, www.shinglecreek.org. The 2020 Audit Report will be posted there after June 30, 2021.

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 2019 Annual Audit are:

General engineering	159,143
General administration	107,928
Education	57,228
Programs	110,240
Projects	916,906
Capital Projects	<u>700,282</u>
Total	\$2,051,727

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 2021 WORK PLAN

The Shingle Creek Watershed Management Commission established its 2021 Work Plan at its January 9, 2021 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 and Upper Twin Lake and provide aquatic invasive species treatment as necessary.
- ⋮ Partner with the City of Robbinsdale to continue implementing the Crystal Lake Management Plan, including carp removal, aquatic vegetation management, and alum treatment.
- ⋮ Partner with the City of New Hope to implement the Meadow Lake Management Plan, including a lake drawdown in fall and winter 2021.
- ⋮ 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.
- ⋮ Partner with the City of Brooklyn Park to undertake Bass Creek Park streambank improvements from Cherokee Drive to I-694.
- ⋮ If the Hennepin County grant application is funded, extend the SRP Reduction filter along the Wetland 639W overflow channel. If not funded, then submit a CWF grant application for partial funding.
- ⋮ Continue to pursue grant funding for TMDL implementation projects.
- ⋮ Expand the Directly Connected Untreated Areas geodatabase to include boundaries of the untreated areas directly connected to the lakes in the watershed. (Streams was completed in 2017.)
- ⋮ 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.

➤ 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 Success and Cedar Island Lakes and grant funded monitoring on Bass, Pomerleau, and Crystal 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.

- Sponsor volunteer stream monitoring through RiverWatch and wetland monitoring through WHEP (Hennepin County).

- Sponsor volunteer lake monitoring through CAMP (Met Council) on Eagle, Pike, Schmidt, and Magda Lakes.

- 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 2021 proposed capital projects, undertake Plan Amendments, hold public hearings, order projects, and certify levies.

- Prepare a 2022 annual budget and begin the Fourth Generation Management Plan, which will be completed in 2022-2023.

- 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

2020 Commissioners

Representing	Name	Address	Telephone	Email	Term Expires Jan 31
Brooklyn Center	David Vlasin		651.792.7972	David.vlasin@rwmwd.org	2021
Brooklyn Park	Adam Quinn	6711 Oak Grove Pkwy, Apt 2108 Brooklyn Park, MN 55445	612 791.5945	adamgquinn@gmail.com	2021
Crystal	Burton Orred, Jr.	6700 60th Avenue North Crystal, MN 55428	763.533.7808	burtssquirts@gmail.com	2021
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

2020 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 Stout	City of Lakes Building #300, 309 Second Avenue South Minneapolis, MN 55401	612.673.5284	Elizabeth.Stout@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

2020 Shingle Creek Commission Staff

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Legal			
Troy Gilchrist	Kennedy & Graven, 470 Pillsbury Center Minneapolis, MN 55402	612.337.9214	tgilchrist@kennedy-graven.com
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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 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.

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

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.

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.
- The next local comprehensive plans are due December 31, 2018. All cities and towns in the seven-county metropolitan area must complete and adopt their local water plans between January 1, 2017 and December 31, 2018.
- 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:

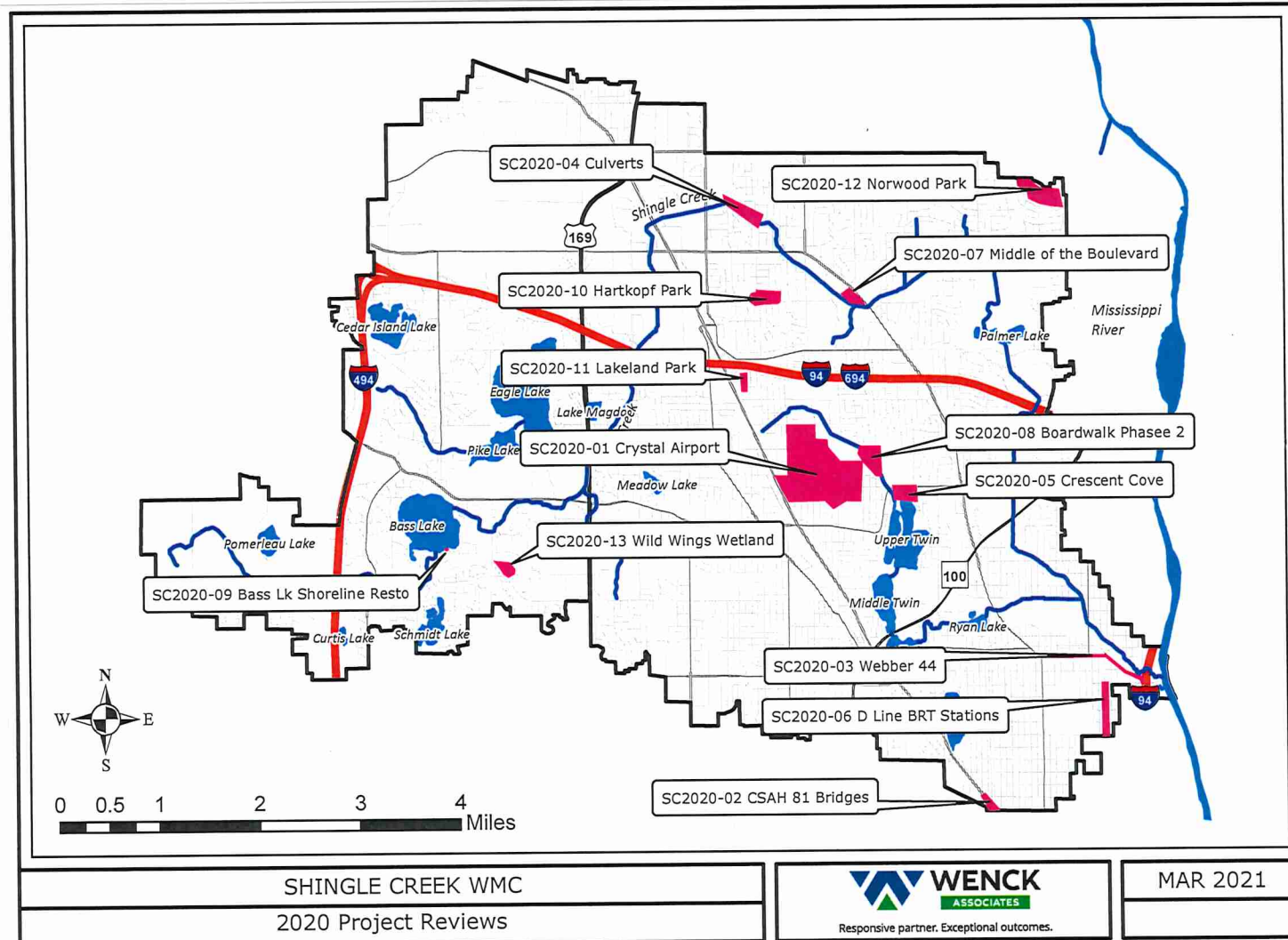
1. Update the existing and proposed physical environment and land use. Information from previous plans that has not changed may be referenced and summarized but does not have to be repeated. Local Plans may adopt relevant sections of the Commission's Watershed Management Plan (WMP) Section 2.0 Inventory and Condition Assessment by reference unless the member city has more recent information.
2. Update the existing and proposed hydrology and provide subwatershed, storm raingage 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.

2020 Project Reviews

Number	Project	City	WCA LGU	Project Description	Impervious Area	Approved
SC2020-001	Crystal Airport	Crystal	City	Redevelopment of airport taxiways and runways on 326 acres	29% impervious with 94.1 acres of imperious surface, DECREASE of 0.5 acres	12-Mar-20
SC2020-002	CSAH 81 Bridges Reconstruction	Robbinsdale	City	Reconstruction of bridge, roadway and utility improvements on 13.7 acres.	47% impervious with 6.5 acres of imperious surface, DECREASE of 0.2 acres	11-Jun-20
SC2020-003	CSAH 152 Webber Parkway Resconstruction (Webber 44)	Brooklyn Park, Minneapolis	Comm, City	Reconstruction of roadway and storm sewer at 44th Avenue, Webber Parkway and Lyndale Avenue up to 41st Avenue, 15.38 acres.	75% impervious, 11.6 acres impervious surface, DECREASE of 1.1 acres.	11-Jun-20
SC2020-004	Candlewood/Hampshire Culverts	Brooklyn Park	Comm	Reconstruction of culvert with bridge on Shingle Creek at Hampshire Avenue. 14.7 acres.	73% impervious with 10.7 acres of impervious surface, an increase of 0.0 acres	11-Jun-20
SC2020-005	Crescent Cove	Brooklyn Center	Comm	Construction of play space along wetland edge that incorporates wetland buffer, floodplain storage and stormwater treatment on 2.23 acre site.	2% impervious with 0.04 acres of impervious surface, increase of 0.02 acres	11-Jun-20
SC2020-006	D Line BRT	Brooklyn Center	Comm	Construction of new bus rapid transit line along Route 5 from Mall of America to Brooklyn Center Transit Center. Sites within Shingle Creek watershed are 0.56 acres.	No increase in impervious surface following development.	9-Jul-20
SC2020-007	Middle of the Boulevard	Brooklyn Park	Comm	Destruction of two existing structures, construction of parking lot and associated landscaping on 11.5 acre site	85% impervious with 9.8 acres of impervious surface, an increase of 0.25 acres	grading 13-Aug-20; complete plan 10-Sep-20
SC2020-008	Crystal MAC Boardwalk Phase 2	Crystal	City	Construction of boardwalk elevated education platform, and access ramps connecting old and new boardwalk on 40-acre site	Disturbed area is 0.11 acres, with no increase in impervious surface	10-Sep-20
SC2020-009	Bass Lake Shoreline Restoration	Plymouth	City	Shoreline restoration of a private property on Bass Lake. Existing shoreline boulders will be moved and lined underneath with MnDO& 3733 fabric liner. A buffer with landscaped wetland vegetation is proposed on west side of property.	No increase in impervious surface.	8-Oct-2020
SC2020-010	Hartkopf Park	Brooklyn Park	Comm	Park improvements including parking lot replacement, addition of prefabricated restrooms, large multi-purpose grass field area, new trails on 25.3 acres. 8.7 acres will be disturbed.	No increase in impervious surface.	10-Dec-2020

2020 Project Reviews, cont'd.

Number	Project	City	WCA LGU	Project Description	Impervious Area	Approved
SC2010-011	Lakeland Park	Brooklyn Park	Comm	Park improvements including parking lot mill and overlay, replacement of concrete picnic pad, two new basketball courts, new paved trail loop, regrading to create new grass field area on 10.03 acre site.	7 acres will be disturbed, an increase of 0.48 acres of impervious area	10-Dec-20
SC2020-012	Norwood Park	Brooklyn Park	Comm	Park improvements including new park building, reconstructed parking lot, new basketball court, small concrete pad and new trails on 32.0 acre site.	8.3 acres will be disturbed with no net increase in impervious area	10-Dec-20
SC2020-013	Wild Wings Western Wetland Improvement Project	Plymouth	City	Alteration of a natural wetland by reconstructing a channel and installing an emergency overflow structure. Excavate a depth of four feet of sediment along channel Site is 0.9 acres.	No change to impervious area.	14-Jan-21



Shingle Creek 2020 - 2021 Operating Budgets

		2020 Budget	2021 Budget
REVENUE			
	Application Fees	\$23,000	\$20,000
	Member Assessments	363,590	363,590
	Blue Line Extension	1,000	0
	Interest	15,000	20,000
	WMWA Education Reimbursement	33,000	33,000
	WMWA Rain Garden Workshops	8,000	6,000
	Miscellaneous Income	0	0
	Subtotal	\$443,590	\$442,590
EXPENSES			
	ADMINISTRATION		
	Administrative Services	\$71,000	\$71,000
	Engineering Support	17,000	17,000
	Project Reviews/WCA	1,500	1,500
	Blue Line Extension	500	0
	Subtotal	\$90,000	\$89,500
	ENGINEERING		
	Engineering Services	62,000	75,000
	Grant Application Writing	11,500	11,000
	Project Reviews/WCA	45,000	44,000
	Local Plan Reviews	0	0
	Blue Line Extension	500	0
	TMDL 5 Year Reviews	12,000	10,000
	Subtotal	\$131,000	\$140,000
	LEGAL		
	Legal Services	6,000	5,500
	Subtotal	\$6,000	\$5,500
	MISCELLANEOUS		
	Bookkeeping	7,000	7,000
	Audit	6,500	6,500
	Insurance & Bonding	3,100	3,100
	Meeting Expense	5,000	5,000
	Subtotal	\$21,600	\$21,600

Shingle Creek 2020 - 2021 Operating Budgets, cont'd.

PROGRAMS	2020 Budget	2021 Budget
<i>Monitoring</i>		
Stream Monitoring	35,000	36,000
Stream Monitoring-USGS	4,500	4,200
Monitoring Equipment	0	0
Stream Biomonitoring	0	0
Commission Lake Monitoring	24,000	24,000
Citizen Assisted Lake Monitoring	3,800	3,800
Vol Wetland Monitoring	2,000	2,000
Vol Stream Monitoring	1,000	1,000
Annual Monitoring Report	16,000	16,000
Subtotal	\$86,300	\$87,000
<i>Water Quality Education</i>		
Education Program	15,000	15,000
Education Grants	500	500
WMWA Admin/Tech: SC Share	5,000	5,000
WMWA Admin/Tech: Partners Share	15,000	15,000
WMWA Impl Activities: SC Share	2,000	2,000
WMWA Impl Activities: Partners Share	4,500	4,500
Rain Garden Workshops: SC Share	2,000	2,000
Rain Garden Workshops: Partners Share	6,000	6,000
WMWA Educators: SC Share	4,500	4,500
WMWA Educators: Partners Share	13,500	13,500
Subtotal	\$68,000	\$68,000
MANAGEMENT PLANS		
3 rd Gen Plan/Plan Amendments	1,000	0
Subwatershed BMP Assessment	20,000	10,000
Subtotal	\$21,000	\$10,000
PROJECTS		
Flood Modeling and Mapping	0	0
Contribution to 4 th Generation Plan	0	0
To (from) Restricted Fund Balances		
To/From Reserves	19,690	20,990
Subtotal	\$19,690	\$20,990
TOTAL OPERATING EXPENSE	\$443,590	\$442,590

Shingle Creek 2020-2021 Member Assessments

2020 Community	Acreage	2019 Tax Capacity	Cost Allocation Based on Area		Cost Based on Tax Capacity		Total Cost	
			%age	Dollars	%age	Dollars	%age	Dollars
Brooklyn Center	3,720	17,466,627	13.07%	23,762.382	10.42%	18,943.731	11.75%	42,706.11
Brooklyn Park	7,080	40,905,072	24.88%	45,225.179	24.40%	44,364.299	24.64%	89,589.49
Crystal	2,480	11,980,781	8.71%	15,841.588	7.15%	12,993.962	7.93%	28,835.55
Maple Grove	5,020	32,567,463	17.64%	32,066.441	19.43%	35,321.602	18.53%	67,388.04
Minneapolis	1,950	11,207,087	6.85%	12,456.087	6.69%	12,154.839	6.77%	24,610.93
New Hope	2,070	14,486,344	7.27%	13,222.616	8.64%	15,711.413	7.96%	28,934.03
Osseo	300	2,082,122	1.05%	1,916.321	1.24%	2,258.201	1.15%	4,174.52
Plymouth	4,380	27,889,515	15.39%	27,978.289	16.64%	30,248.053	16.01%	58,226.34
Robbinsdale	1,460	9,034,849	5.13%	9,326.096	5.39%	9,798.901	5.26%	19,125.00
Total	28,460	167,619,860	100%	181,795	100%	181,795	100%	363,590
2021 Community	Acreage	2020 Tax Capacity	Cost Allocation Based on Area		Cost Based on Tax Capacity		Total Cost	
			%age	Dollars	%age	Dollars	%age	Dollars
Brooklyn Center	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
Total	28,460	180,919,615	100%	181,795	100%	181,795	100%	363,590