

# Elm Creek Watershed Management Commission

**2020 Annual Activity Report** 

# Elm Creek Watershed Management Commission 2020 Annual Activity Report

# **Table of Contents**

		Page
Annual	Activity Report	1
The Co	mmission	1
The Eln	n Creek Watershed	1
Are	ea of Members within the Elm Creek Watershed	1
Ma	p of the Watershed	2
Waters	hed Management Plan	3
Loc	al Plans	4
2020 W	ork Plan in Review	4
Tec	chnical	4
Мо	nitoring	5
Edu	ucation and Public Outreach	5
Pro	jects and Capital Improvements	7
Adı	ministrative	8
Financi	al Reporting	9
Project	ed 2021 Work Plan	10
Tec	hnical	10
Mo	nitoring	11
Edu	ucation and Public Outreach	11
Pro	jects and Capital Improvements	12
Adı	ministrative	13
Append	dices	
A.	Commissioners   Staff   Consultants	
B.	Third Generation Plan Goals, Local Plans	
C.	2020 Project Reviews   2021 Project Review Policy, Fee Schedule	
D.	Stream Monitoring	
E.	USGS Monitoring	
F.	Lake Monitoring	
G.	Citizen Assisted Monitoring Program (CAMP)	
H.	Watershed PREP	
l.	Commission Website	

J.

Financials

This report was prepared for the Elm Creek Watershed Management Commission by JASS, Inc.

For more information about this report, contact <a href="mailto:Judie@jass.biz">Judie@jass.biz</a>

We gratefully acknowledge the assistance of: James Kujawa, Surface Water Solutions LLC, Brian Vlach and Amy Timm, Three Rivers Park District

#### About the cover photograph:

The Elm Creek Restoration Project Phase IV in Champlin includes 3,670 linear feet of stream bank restoration of Elm Creek which is located upgradient of the Mill ponds. The project will extend from the park bridge in Josephine Nunn Park to the Elm Creek Crossing Bridge. Preliminary design plans have been completed in cooperation with the MNDNR, and the Elm Creek Management Commission. Elm Creek is an Impaired Water for low dissolved oxygen. Restoring the stream banks and providing habitat structure will reduce downstream sedimentation and provide native habitat improvements including root wads, boulder vanes, toewood, boulder clusters, rock weirs and riffles with varied substrate to enhance aquatic species habitat including sensitive species such as Blandings Turtle.

Photo courtesy of Todd Tuominen, City of Champlin.

This annual activity report, prepared by the Elm Creek Watershed Management Commission in accordance with the annual reporting requirements of Minnesota Rules Chapter 8410.0150 Subp. 2-3, summarizes the activities undertaken by the Commission during calendar year 2020.

#### **THE COMMISSION**

The Elm Creek Watershed Management Commission was established to protect and manage the natural resources of the Elm Creek watershed. A Board of Commissioners comprised of representatives appointed by the member communities was established as the governing body of the Commission. Its members are the cities of Champlin, Corcoran, Dayton, Maple Grove, Medina, Plymouth, and Rogers.

**MEETINGS** The Commission normally meets monthly on the second Wednesday at 11:30 a.m. at Maple Grove City Hall, 12800 Arbor Lakes Parkway. The meetings are open to the public and visitors are welcome. Meeting notices, agendas and approved minutes are posted on the Commission's website. <a href="https://www.elmcreekwatershed.org">www.elmcreekwatershed.org</a>. However, due to the COVID-19 pandemic, beginning in April 2020 the Commission met virtually via zoom.us. All other meeting criteria remained the same.

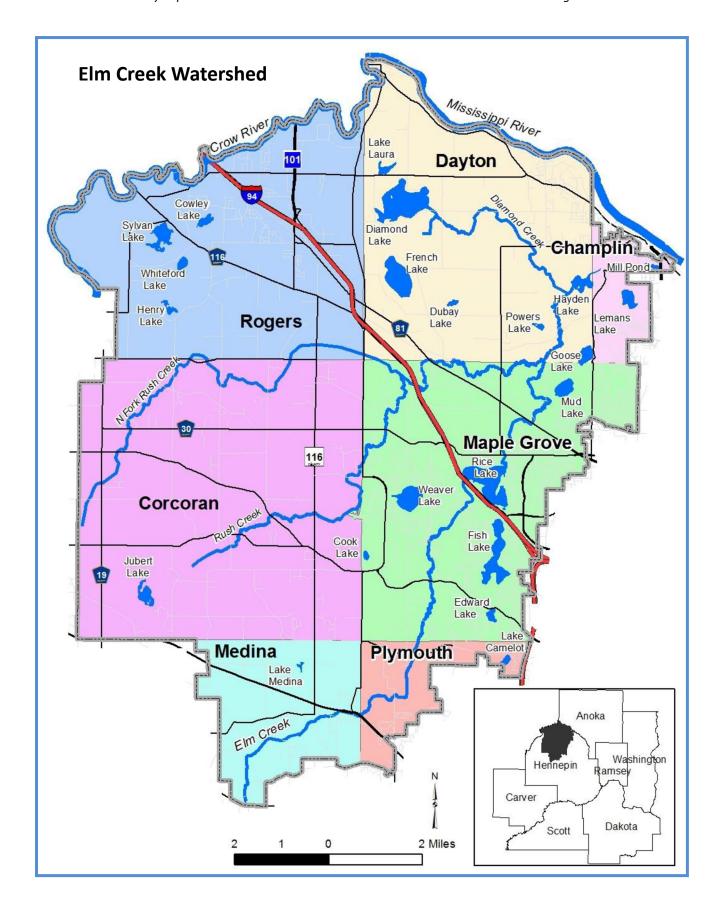
**COMMISSIONERS | TECHNICAL ADVISORY COMMITTEE | STAFF** Appendix A includes the names of the Commissioners and their Alternates appointed to serve in 2020. Also listed there are the members of the Commission's Technical Advisory Committee (TAC) along with the individuals/firms serving as the Commission's administrative, legal, and technical support staff. The Commission has no employees.

#### **THE WATERSHED**

The Elm Creek watershed covers approximately 130.61 square miles and lies wholly within the north central part of Hennepin County, Minnesota. The Crow and Mississippi Rivers demarcate the northern boundary. Although some areas in the north drain to the Crow and Mississippi Rivers, they are within the legal boundaries of the Elm Creek watershed. Table 1 shows the area share of the member communities in the watershed. A map of the watershed may be viewed on the following page.

Local Government Unit	Area (Square Miles)	%age of Watershed
Champlin	3.08	2.36%
Corcoran	36.06	27.61%
Davton	25.17	19.27%
Manle Grove	26.32	20.15%
Medina	9.34	7.15%
Plvmouth	4.44	3.40%
Rogers	26.20	20.06%
Total	130.61	100.0%

Table 1 - Area of Members within the Elm Creek Watershed



#### **■ THE WATERSHED PLAN**

The Elm Creek Watershed Management Commission adopted its Third Generation Watershed Management Plan on October 14, 2015. The Third Generation Plan describes how the Commission will manage activities in the Elm Creek watershed in the ten-year period 2015-2024.

The Plan includes information required by Minnesota Administrative Rules Chapter 8410, Local Water Management: 1) an updated land and water resource inventory; 2) goals and policies; 3) an assessment of problems and identification of corrective actions; 4) an implementation program; and 5) a process for amending the Plan. This Plan also incorporates information and actions identified in the Elm Creek Watershed-wide Total Maximum Daily Load study (TMDL) and Watershed Restoration and Protection Strategy study (WRAPS), completed between 2009 and 2016.

The Commission, along with the Citizen and Technical Advisory Committees (CAC and TAC), identified the following issues during development of the plan:

- Water quality—numerous lake and stream impairments, impact of land use changes, stream stability.
- Agricultural impacts on water quality—increase agricultural BMPs, develop effective mechanisms to encourage voluntary adoption, more effective outreach.
- Funding—maintaining a sustainable funding level; funding capital projects.
- Other issues—lack of information and knowledge of water quality issues and actions by multiple stakeholders; need to be realistic and prioritize actions; increase member city involvement; foster collaboration with other agencies.

Through identification of these issues, the Commission developed the following priorities to guide water resources planning and management functions:

- Implement priority projects, provide cost-share to member cities to undertake projects to help achieve WRAPS lake and stream goals.
- Use results of WRAPS study to establish priority areas, complete subwatershed assessments to
  identify specific BMPs that feasibly and cost-effectively reduce nutrient and sediment loading to
  impaired water resources.
- Develop model manure management ordinance to regulate placement of new, small non-food animal operations; require member cities to adopt that or other ordinances and practices to accomplish its objectives.
- Partner with other organizations to complete pilot project for targeted fertilizer application, increase and focus outreach to agricultural operators.
- Continue participating in joint education and outreach activities with the West Metro Water Alliance (WMWA) and other partners.

The Commission's goals and policies are enumerated in Appendix B.

#### **LOCAL PLANS**

Member cities are required to adopt their own local water management plans. These plans must be consistent with the Commission's Watershed Management Plan and comply with MN Statutes, Section 103B.235, and MN Rules 8410 regarding local plan content.

#### **= 2020 W**ORK PLAN IN REVIEW

The Elm Creek Commission identified a number of activities to be undertaken in 2020. The activities are categorized as Technical, Monitoring, Education, Projects and Capital Improvements, and Administrative and are described below. Progress toward completing these activities is shown in *italics*.

#### **TECHNICAL**

- § Continue to review local development/redevelopment plans for conformance with the standards outlined in the Commission's Third Generation Watershed Management Plan. Forty-two projects, along with six carry-over projects, were reviewed by the Commission in 2020. The Commission does not have a permit program. Appendix C lists these projects and includes a map showing their locations.
- Review the current project review fee schedule for fiscal conformity. The Technical Advisory

  Committee (TAC) reviewed the current project review fee schedule. The members of the TAC compared
  the fees collected by the Commission for development review projects to the expenses incurred for the
  review of these projects with the goal of collecting appropriate fees to cover the costs of reviewing
  projects for compliance with watershed rules. The TAC recommended to the Commission, and the
  Commission approved on September 9, 2020, the following changes to the project review fee structure:
  - Move from the current fee structure to a more flexible escrow structure where applicants will be required to fund the cost of the review in full.
  - Collect a 10% administration fee and a 15% technical service fee to help offset the cost of administrative needs and questions submitted to the Commission prior to a formal application.
  - Limit the amount of time Commission technical advisors spend on pre-project Q & A to two hours.

The revised fee schedule, along with its Policy on Project Review Fees, which was also approved on September 9, 2020, were transmitted to the member cities by the Commission on September 18, 2020. Both documents can be viewed in Appendix C.

S Continue to update the Special Flood Hazard Areas on the FEMA Floodplain maps located within the watershed into current modeling packages. *An amendment to the Floodplain Modeling Grant contract with the DNR which extended the project from April 30, 2020 to March 31, 2021, was approved by the Commission at its April 8, 2020 meeting.* 

#### **MONITORING**

- § Under a five-year cooperative agreement approved in 2018, continue to partner with the Three Rivers Park District (TRPD) to share in the costs of conducting lake and stream monitoring in the watershed. In 2020 the Park District monitored Diamond Creek (DC), Rush Creek main stem (RT), and Elm Creek above Rice Lake (EC77) and continued its support of the USGS stream gauging station in Champlin. TRPD also monitored Diamond, Fish, and Weaver lakes and the main basin of Rice Lake. Park District staff conducted aquatic vegetation surveys in Diamond Lake and the Mill Pond in 2020 as well. Stream monitoring results are found in Appendix D, lake monitoring results in Appendix F.
- Survey (USGS). Real time data from the monitoring station may be viewed on the Internet at <a href="http://waterdata.usgs.gov/mn/nwis/uv/?site\_no=05287890&PARAmeter\_cd=00065,00060">http://waterdata.usgs.gov/mn/nwis/uv/?site\_no=05287890&PARAmeter\_cd=00065,00060</a>. Learn more about the monitoring station in Appendix E.
- § Fund the monitoring of one lake through Metropolitan Council's Citizen Assisted Monitoring Program (CAMP). Teal Lake in Maple Grove was chosen as the lake to be monitored through CAMP. Teal Lake Conservation Association members performed the monitoring. CAMP monitoring results will be available in 2021 on the Met Council's website, https://metrocouncil.org/Wastewater-Water/Services/Water-Quality-Management/Lake-Monitoring-Analysis/Citizen-Assisted-Monitoring-Program.aspx. Learn more about CAMP in Appendix G.
- § Participate in the Minnesota Wetland Health Evaluation Program (WHEP) with four wetlands in 2020. Due to the COVID 19 pandemic volunteers did not participate in WHEP in 2020.

#### **EDUCATION AND PUBLIC OUTREACH**

- § Promote river stewardship through Hennepin County's RiverWatch program with three sites in 2020. Due to the COVID 19 pandemic volunteer invertebrate monitoring did not occur in 2020.
- § Continue as a member of the West Metro Water Alliance (WMWA). The Commission continued its membership in WMWA. Dayton representative and Commission Chairman Doug Baines represented the Commission at WMWA's monthly meetings and Plymouth Commissioner Catherine Cesnik served as the Alliance's Project Coordinator.
- § Promote Watershed PREP (Protection, Restoration, Education, and Prevention), a program of WMWA. The focus of the program is two-fold to present water resource-based classes to fourth grade students and to provide education and outreach to citizens, lake associations, civic organizations, youth groups, etc. Three individual classes meeting State of Minnesota education standards have been developed. Lesson 1, What is a Watershed and Why do we care?, provides an overview of the watershed concept and is specific to each school's watershed. It describes threats to the watershed. Lesson 2, The Incredible Journey, describes the movement and status of water as it travels through the water cycle. Lesson 3, Stormwater Walk, investigates movement of surface

water on school grounds. The ultimate goal is to make this program available to all fourth graders in the four WMWA watersheds and to other schools as contracted. The program is offered to public, private, parochial, magnet and charter schools. In 2020, despite the challenges of COVID-19, 572 students in 24 classes attended Lesson 1 and 256 students in ten classes attended Lesson 2, either in person or through online classes. (Appendix H)

- § Promote "Lawns to Legumes," a program for residents to seed their lawns with a bee lawn mix, targeting habitat for the Rusty-patched bumblebee, an endangered species. The Board of Water and Soil Resources (BWSR) runs the program with funding provided to Hennepin County serving as a Conservation District. BWSR and its program partner, Blue Thumb: Planting for Clean Water, conducted an initial application period for spring 2020 projects that yielded over 5,000 applications.
- § Sponsor workshops as part of the Commission's Education and Public Outreach Program. The workshops are presented by Metro Blooms. *The City of Champlin hosted a* Resilient Yard/Turf Alternatives Workshop on April 14, 2020. The workshop introduced the audience to the four planting types promoted through the Lawns to Legumes Program. Due to the pandemic, content was presented through an online platform. While only five Champlin residents participated in this virtual workshop, 32 residents from across the metro area also participated. It is the City's intention to continue replaying the workshop on QCTV for Champlin residents. Attendees rated this new format as "above-average" or excellent. Eighty percent indicated they are likely to install pollinator habitat within a year; 39% responded that they are likely/very likely to install a raingarden within two years; and 93% indicated they were likely/very likely to install native plants in their yards this year.
- § Continue as a member of Blue Thumb and WaterShed Partners and a partner in the NEMO (Nonpoint Education for Municipal Officials) program. While the Commission continued its membership in Blue Thumb and WaterShed Partners, the NEMO program was inactive in 2020.
- § Continue to work in partnership with the University of Minnesota's agriculture specialist to help build relationships with the agricultural community in the watershed to achieve TMDL load reductions.

  COVID-19 also limited the work of the U of M ag specialist within the watershed. No projects were completed in 2020.
- § Work with the Hennepin County Rural Conservation Specialist. Assist landowners in identifying BMPs for implementation throughout the watershed. Work with member cities to identify projects that will result in TMDL load reductions. *The following projects were identified in 2020:* 
  - A large project taking place west of Jubert Lake in Corcoran involves multiple components and landowners. Several grassed waterways, a sediment basin, and a water control structure are being designed in partnership with the landowners, with implementation expected in 2020-2021.
  - A second project in Corcoran is currently under review by the city's WCA consultant for feasibility.
  - Exclusion fencing and rotational grazing plan are being developed for a landowner in

- Corcoran to keep horses/goats out of an ephemeral wetland area during wet seasons. Some pasture improvements/refreshing will also be undertaken in the rest of the pasture.
- A project just north of Diamond Lake has been identified to reduce manure runoff downhill into a wetland that feeds directly into the lake in Dayton.
- Inspection of County Ditches 3 and 16 in Corcoran/Maple Grove will occur to determine their baseline condition prior to remedial work being performed.
- S Continue to populate and maintain the Commission's website <a href="www.elmcreekwatershed.org">www.elmcreekwatershed.org</a> to provide news to residents, students, developers and other individuals interested in the water resources of the watershed. The website analytics for 2020 are included in Appendix I.

#### **PROJECTS AND CAPITAL IMPROVEMENTS**

- S Contact member cities, requesting them to provide updates to the projects already included on the Commission's Capital Improvement Program (CIP) as well as inform the Commission of new projects that they would like to have considered for inclusion on the CIP. The Commission held a public meeting on June 10, 2020, after which it approved Resolution 2020-01 adopting an amendment to the Third Generation Watershed Management Plan revising the CIP. Three projects, (1) the Elm Road Area Stream Restoration project in Champlin, (2) the Corcoran City Hall Parking Lot project, and (3) the Elm Creek Stream Restoration Phase IV Hayden Lake Outfall project in Champlin, were added to the CIP. The Rush Creek South Improvement project in Maple Grove, was removed from the CIP and the timing for the Fox Creek South Pointe project in Rogers was shifted from 2019 to 2021. In addition, more specificity was added to two projects, (1) Livestock Exclusions, Buffers, and Stabilizations and (2) Agricultural BMPs Cost Share, both in the Rush Creek Subwatershed.
- Solution Continue to support City-sponsored projects using the ad valorem funding mechanism. Conduct public hearing for identified projects and certify levy to Hennepin County. On September 10, 2020, the Commission conducted a public hearing to consider three projects for certification to Hennepin County. The projects and the amounts certified are: Project 2020-01 Livestock Exclusions, Buffers, Stabilizations, in the cities of Corcoran and Rogers, \$53,025; Project 2020-02 Agricultural Best Management Practices Cost-Share, also in the cities of Corcoran, and Rogers, \$53,025; and Project 2020-03 Enhanced Street Sweeper, City of Plymouth, \$31,512. The total estimated cost of the three projects is \$218,858.00, of which \$137,562 was certified under Resolution 2020-02.
- § For the 2020-2021 biennium of the Watershed-Based funding program, the Board of Water and Soil Resources (BWSR) allocated funding based on major watershed divides. Elm Creek is in the Mississippi West Major Watershed (MWW) which was allocated \$874,153. A partnership was created consisting of at least one representative from each watershed district, watershed management organization, soil and water conservation district, county and at least two municipalities within the MWW. The Commission submitted two projects, Rush Creek Restoration and Elm Creek Restoration with requests of \$200,000 and \$300,000, respectively. The Commission was awarded a total of \$281,996.20.

- § Undertake high priority projects identified in the Rush Creek Headwaters Subwatershed Assessment. Proposed activities could include grassed waterways, alternate/closed tile intakes, manure management projects, grazing plans, and exclusion fencing.
  - Support the City of Dayton and its partners to continue efforts for completion of the Diamond Lake subwatershed assessment. The City of Dayton applied and was approved for funding by the Commission in August 2019 for an assessment of the subwatershed draining to Diamond Lake, to be completed by Wenck Associates at a total cost of \$59,000. The Commission will pay 25% (\$14,750), with the City of Dayton paying the remainder, \$45,250. Three Rivers Park District and the cities of Rogers and Champlin are all project partners but are not contributing any funds to the project. The project will be completed in early 2021.
  - Support the City of Maple Grove and its partners as they undertake a subwatershed assessment for Weaver Lake. The City of Maple Grove applied and was approved for funding in February 2020 by the Commission for an assessment of the subwatershed draining to Weaver Lake, to be completed by WSB at a total cost of \$30,000. The Commission will pay 25% (\$7,500), with the City paying the remainder. A draft of the assessment has been completed and is out for review by the Weaver Lake Improvement Association. Comments are expected back in January 2021.
  - Support the City of Corcoran and its partners as they undertake a subwatershed assessment for the South Fork of Rush Creek. A small portion of the South Fork also flows through the cities of Maple Grove and Medina. The City of Corcoran applied and was approved for funding in February 2020 by the Commission for an assessment of the subwatershed draining to the South Fork of Rush Creek, to be completed by Wenck Associates at a total cost of \$58,800. The Commission will pay 14% (\$8,820), with the proceeds from a Clean Water Fund Grant (or similar) and the cities of Corcoran, Medina, and Maple Grove paying the remainder. City Staff recognize a need to generate local funds and have discussed a stormwater utility as development expands into the MUSA area as well as considerations for rural Corcoran. Council level discussions are likely to occur in 2021.
- Minnesota's New Buffer Initiative requires public waters in the state lakes, rivers, and streams to be surrounded by vegetated buffers 50-feet wide (on average) and public ditches to have 16.5-foot wide buffers. In 2020 buffer reviews were completed for Champlin, Dayton, Maple Grove, and Plymouth. At year-end, all properties in these four cities were in compliance.

#### **A**DMINISTRATIVE

- § Conduct the biennial solicitation of interest proposals for administrative, legal, technical and wetland consultants. *This process will be replicated in January 2021*.
- § Adopt a 2021 operating budget. At its June 10, 2020 regular meeting the Commission approved a 2021 operating budget totaling \$700,510. To fund this budget, the Commission approved member assessments of \$237,300, a zero increase over the current year's assessments. (Appendix J)

§ Publish an annual activity report summarizing the Commission's yearly activities and financial reporting.

The Commission's 2019 Annual Activity Report was accepted by the Commission at its April 8, 2020 meeting and submitted to the Board of Water and Soil Resources (BWSR) as prescribed by MN Rules.

#### **FINANCIAL REPORTING**

Appendix J includes the Commission's approved budget for 2020. The Commission's Joint Powers Agreement provides that each member community contributes toward the annual operating budget based on its share of the total market value of all property within the watershed. The 2020 assessments to the members are also shown in Appendix J.

Of the \$1,012,505 operating budget for 2020 approved by the Elm Creek Watershed Management Commission on June 12, 2019, revenue of \$80,000 was projected as proceeds from application fees, \$5,500 from partnership revenue, \$139,360 from grant proceeds, and \$8,250 from interest income and dividends, resulting in assessments to members totaling \$237,300. \$93,160 was projected as coming from reserves.

\$243,860 was projected as project review-related expense; \$50,010 for water monitoring; and \$21,500 for education. \$123,200 was budgeted for administration, planning, and general operating expenses. \$205,437 resides in an assigned fund for special projects, studies and subwatershed assessments.

The Commission also designated \$448,935 as its share of six CIP Projects. (Two projects were later withdrawn.) A Hennepin County ad valorem levy (\$295,138 payable in 2020) was used to fund the Commission's share of the remaining four projects having a cumulative cost of \$2,663,830.

The Commission maintains a checking account at US Bank for current expenses and rolls uncommitted monies to its account in the 4M Fund, the Minnesota Municipal Money Market Fund.

An amendment to Minnesota Rules, Chapter 8410 became effective 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 Elm Creek Commission, to June 30, 2020. *The 2019 Audit Report, which was prepared by Johnson & Company, Ltd., Certified Public Accountants, was accepted by the Commission at its June 10, 2020 meeting and submitted to the State Auditor online per compliance guidelines. It is available for viewing on the Commission's website, www.elmcreek.org.* 

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 available for any purpose. These amounts are reported only in the general fund.

Amounts paid by the Commission per the 2019 Audit are as follows:

General engineering	95,419
General administration	116,449
Education	14,493
Programs	40,348
Projects	124,092
Capital projects	432,547
Total	\$823,348

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

#### **■ PROJECTED 2021 WORK PLAN**

#### **TECHNICAL**

- S Continue to review local development/redevelopment plans for conformance with the standards outlined in the Commission's Third Generation Watershed Management Plan.

  \*Implement the updated 2021 project review policy, application form, and fee schedule.
- § Continue to update the Special Flood Hazard Areas on the FEMA Floodplain maps located within the watershed into current modeling packages. At December 25, 2020, eight percent of the original budget remained, not including \$14,800 of additional work authorized by the DNR in December 2020 and an additional \$1,200 for the revision of 12 subwatersheds and update of the HEC-HMS model inputs for those subwatersheds. The term of the contract ends March 31, 2021. The DNR will begin presentation of the model to floodplain staff in the member cities on March 18, 2021.

§ Convene a meeting of the Technical Advisory Committee to review any inconsistencies between the Commission and member city Rules and Standards.

#### **MONITORING**

- Continue to partner with the Three Rivers Park District (TRPD) to share in the costs of conducting lake and stream monitoring in the watershed as described in the five-year cooperative agreement approved in 2018. In 2021 TRPD will monitor Elm Creek at 77th Avenue (ECF77); Rush Creek at Territorial Road (RT); and Diamond Creek (DC) for continuous flow. TRPD will also monitor four of fifteen lakes in the Elm Creek watershed (Diamond, Fish, Rice main body, and Weaver) in 2021. In addition, under the cooperative agreement, the Commission and the Park District will provide financial support to assist the monitoring efforts of the USGS stream gauging station on Elm Creek within the Elm Creek Park Reserve.
- Fund the monitoring of one lake through Metropolitan Council's Citizen Assisted Monitoring Program (CAMP). *One lake will be monitored through CAMP in 2021.*
- § Continue to operate the monitoring station in Champlin in cooperation with the United States Geological Survey (USGS). The cooperative agreement with the USGS will be renewed for WY2021.
- § Participate in the Minnesota Wetland Health Evaluation Program (WHEP) with four wetlands in 2021, *dependent on the status of the pandemic*.

#### **EDUCATION AND PUBLIC OUTREACH**

- § Continue as a member of the West Metro Water Alliance (WMWA). Dependent on the status of the pandemic, Watershed PREP classes may be conducted virtually.
- Promote "Lawns to Legumes," a program for residents to seed their lawns with a bee lawn mix, targeting habitat for the Rusty-patched bumblebee, an endangered species. The Board of Water and Soil Resources (BWSR) will run the program with funding coming to Hennepin County serving as a Conservation District. Additional funding is being sought to continue this program in 2021. The Commission will promote the program on its website if funding is realized.
- § Sponsor Rain Garden Workshops as part of the Commission's Education and Public Outreach Program. The workshops are presented by Metro Blooms. *Virtual workshops may be substituted for in-person workshops in 2021 and made available to host cities for rebroadcasting.*
- Solution of Blue Thumb and WaterShed Partners and a partner in the NEMO (Nonpoint Education for Municipal Officials) program. Staff will continue to virtually attend Blue Thumb and WaterShed Partner meetings, bringing back programs and ideas for promotion by the Commission.

- § Promote river stewardship through Hennepin County's RiverWatch program with three sites in 2021, *dependent on the status of the pandemic*.
- § Continue to work in partnership with the University of Minnesota's agriculture specialist to help build relationships with the agricultural community in the watershed in order to achieve TMDL load reductions. The status of the pandemic will determine what amount of interaction with landowners can occur in 2021.
- Work with the Hennepin County Rural Conservation Specialist. Assist landowners in identifying BMPs for implementation throughout the watershed. Work with member cities to identify projects that will result in TMDL load reductions. Hennepin County Environment and Energy Staff will work with landowners to identify BMP projects as well as larger, more strategic projects for inclusion on the Commission's Capital Improvement Program (CIP).
  - § Continue to populate and maintain the Commission's website <a href="www.elmcreekwatershed.org">www.elmcreekwatershed.org</a> to provide news to residents, students, developers and other individuals interested in the water resources of the watershed. *This process will continue in 2021*.

#### **PROJECTS AND CAPITAL IMPROVEMENTS**

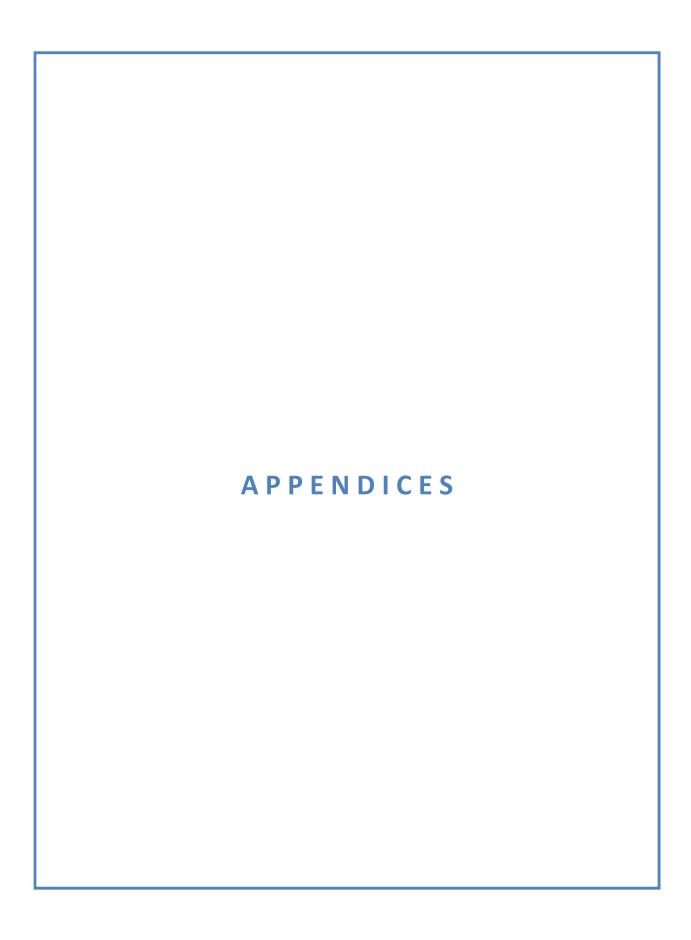
- § Contact member cities, requesting them to provide updates to the projects already included on the Commission's Capital Improvement Program (CIP) as well as inform the Commission of new projects that they would like to have considered for inclusion on the CIP. Hold public meeting and adopt an amendment to the Third Generation Watershed Management Plan to incorporate the new/revised projects. *This process will be repeated in 2021*.
- § Continue to support City-sponsored projects using the ad valorem funding mechanism. Conduct public hearing for identified projects and certify levy to Hennepin County. *This process will also be repeated in 2021.*
- § Undertake high priority projects identified in the Rush Creek Headwaters Subwatershed Assessment. *Grant opportunities will be sought to help supplement local and Commission funding in order to take on these projects.*
- For the 2020-2021 biennium of the Watershed-Based funding program BWSR has allocated the funds based on major watershed divides. Elm Creek is in the Mississippi West Major Watershed (MWW) which will be allocated \$874,153. Funds became available July 1, 2020. Grants from these funds expire December 31, 2023 Elm Creek submitted two projects, the Rush Creek Restoration for \$200,000 and the Elm Creek Restoration at the outlet of Hayden Lake for \$300,000. After criteria ranking, Elm Creek was awarded \$281,996.20 to be put toward one or both projects at the discretion of the Commission. A 10% local match is required. In addition, other grant funds will be pursued to complete these stream restorations.

- Elm Creek is also in the North Fork Crow (NFC) major watershed which was allocated \$91,105.00; however, no projects were identified within the major watershed area for which to use the funding so it was relinquished to other participants.
- § Support the City of Maple Grove and its partners as they undertake a subwatershed assessment for Weaver Lake. The City has begun its work on the subwatershed assessment and is awaiting comments from the lake association before finalizing the assessment.
- Support the City of Corcoran and its partners as they undertake a subwatershed assessment for the South Fork of Rush Creek. A small portion of the South Fork also flows through the cities of Maple Grove and Medina. Corcoran intends to continue pursuing funds and/or grants for this project. Staff recognizes a need to generate local funds and has discussed a stormwater utility as development expands in Corcoran's MUSA area as well as considerations for rural Corcoran. Council level discussions are likely to occur in 2021.
- § Support the City of Dayton and its partners to continue efforts for completion of the Diamond Lake subwatershed assessment. At 2020 year-end, the Diamond Creek SWA was at approximately 75% completion. Most of the technical components of the project (~90%) were completed in 2020, including data compilation, GIS analysis, modeling, field visits, BMP siting, planning level design, and cost estimates. Staff have begun outlining and drafting the final report and plan to have a draft for local stakeholder review by the end of March 2021.

#### **ADMINISTRATIVE**

- § Conduct the biennial solicitation of interest proposals for administrative, legal, technical and wetland consultants. Solicitations were published in the December 14, 2020 edition of the State Register. Five engineering firms, one legal firm, and one administrative services provider responded. Campbell Knutson, PA, and Judie Anderson's Secretarial Services, Inc. were selected to perform legal and administrative services, respectively, at the Commission's January 13, 2021 meeting. Wenck/Stantec was chosen as the Commission's technical advisor at the February 10, 2021 meeting. This process will be repeated in January 2023.
- § Adopt a 2022 operating budget. A Budget Committee will draft a 2022 operating budget for consideration by the Commission in May 2021.
- § Publish an annual activity report summarizing the Commission's yearly activities and financial reporting. The 2020 Annual Activity Report will be published in April 2021 and made available to the member cities and the public on the Commission website, http://www.elmcreekwatershed.org/annual-reports.html.
- § Participate with the Board of Water and Soil Resources in a Performance Review and Assistance Program (PRAP) Level II Review. *This review will begin in May 2021*.

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.elmcreekwatershed.org/contact-us.html



#### **Commissioners**

Commissioners and Alternate Commissioners are appointed by the communities they represent and serve at will. Officers are elected annually at the first regular meeting during the month of March and assume office on April 1.

REPRESENTING	NAME/POSITION	ADDRESS	TELEPHONE/EMAIL
Champlin	Bill Walraven	216 Lowell Road	763.421.3206
	Secretary	Champlin, MN 55316	traderstec@aol.com
	Gerry Butcher	11467 Preserve Lane N	763.557.1451
	Alternate	Champlin, MN 55316	gerrybutcher671@yahoo.com
Corcoran	Ken Guenthner Treasurer vacant Alternate	6315 Butterworth Lane Corcoran, MN 55430	612.710.0734 kenguenthner@gmail.com
Dayton	Doug Baines	13000 Overlook Road	763.323.9506
	Chair	Dayton, MN 55327	dougbaines@aol.com
	Tim McNeil	12260 S Diamond Lake Road	612.730.9312
	Alternate	Dayton, MN 55327	tim@timmcneil.com
Maple Grove	Joe Trainor	16075 Territorial Road	763.420.4645
	Commissioner	Maple Grove, MN 55369	joe.trainor@meritain.com
	Dan Riggs	12822 86th Place North	612.916.4406
	Alternate	Maple Grove, MN 55369	driggs@carlsonmccain.com
Medina	Elizabeth Weir	1262 Hunter Drive	763.473.3226
	Vice Chair	Wayzata, MN 55391	lizvweir@gmail.com
	Terry Sharp	4274 Fairway Drive	612.849.6230
	Alternate	Medina, MN 55340	tsharp2972@aol.com
Plymouth	Catherine Cesnik Commissioner		cesnik@gmail.com
	Jake Gateman	14205 56th Ave N	651.726.4759
	Alternate	Plymouth, MN 55446	jake.gateman@gmail.com
Rogers	Kevin Jullie	13315 Oakwood Drive	763.428.9160
	Commissioner	Rogers, MN 55374	kjullie@srfconsulting.com
	Vacant Alternate		

# **Technical Advisory Committee**

Members of the Technical Advisory Committee (TAC) are appointed by the member communities they represent. The purpose of the TAC is to review guidelines, standards and polices used to evaluate plats, plans and proposals of the members and make recommendations to the full Commission. The TAC meets at the direction of the Commission.

REPRESENTING	NAME	ADDRESS	TELEPHONE/EMAIL
Champlin	Todd Tuominen	City of Champlin 11955 Champlin Drive Champlin, MN 55316	763.923.7120 ttuominen@ci.champlin.mn.us
Corcoran	Kevin Mattson	City of Corcoran 8200 County Road 116 Corcoran, MN 55340	763.400-7028 kmattson@ci.corcoran.mn.us
Dayton	Nico Cantarero	Wenck Associates 7500 Highway 55 Ste 300 Golden Valley, MN 55427	763.252.6904 ncantarero@wenck.com
Maple Grove	Derek Asche	City of Maple Grove 12800 Arbor Lakes Parkway Maple Grove, MN 55313	763.494.6354 dasche@maplegrovemn.gov
Medina	Kaci Fisher	Hakanson-Anderson 3601 Thurston Avenue Anoka, MN 55303	763.852.0496 KaciF@HAA-inc.com
Plymouth	Ben Scharenbroich	City of Plymouth 3400 Plymouth Boulevard Plymouth, MN 55447	763.509.5527 bscharenbroich@plymouthmn.gov
Rogers	Andrew Simmons	City of Rogers 22350 S Diamond Lake Road Dayton, MN 55374	763.428.0907 asimmons@ci.rogers.mn.us
Barr Engineering	Jim Herbert Joe Waln	4300 MarketPointe Drive #200 Minneapolis, MN 55435	952.832.2784 jherbert@barr.com 952.832.2984 jwaln@barr.com
Surface Water Solutions, LLC	James Kujawa	6533 Neddersen Circle Brooklyn Park, MN 55445-3206	952.456.3206 surfacewatersolutions@outlook.com
Hennepin County Dept. of Energy and Environment	Kris Guentzel Kirsten Barta Paul Stewart	701 Fourth Avenue S. Suite 700 Minneapolis, MN 55415-1600	612.596.1171 kristopher.guentzel@hennepin.us 612.543.3373 Kirsten.barta@hennepin.us 612.543.9409 Paul.Stewart@hennepin.us
Three Rivers Park District	Brian Vlach	12615 County Road 9 Plymouth, MN 55441	763.694.7846 Brian.Vlach@ThreeRiversParks.org

# **Staff and Consultants**

The required biennial solicitation for interest proposals for administrative, legal, and technical consulting services was published in the January 14. 2019 edition of the *State Register*. The next solicitation will occur in January 2021. The Commission has no employees.

NAME/POSITION		ADDRESS	TELEPHONE/EMAIL
Technical Services			
Barr Engineering	Jim Herbert	4300 MarketPointe Drive #200 Minneapolis, MN 55435	952.832.2784 jherbert@barr.com
	Joe Waln		952.832.2984 jwaln@barr.com
			, -
Surface Water Solutions, LLC	James Kujawa	6533 Neddersen Circle Brooklyn Park, MN 55445-3206	952.456.3206 surfacewatersolutions@outlook.com
,		•	_
Hennepin County	Kris Guentzel	701 Fourth Avenue S. Suite 700 Minneapolis, MN 55415-1600	612.596.1171 kristopher.guentzel@hennepin.us
Dept. of	Kirsten Barta	, ,	612.543.3373
Energy and Environment	Paul Stewart		Kirsten.barta@hennepin.us 612.543.9409
			Paul.Stewart@hennepin.us
Legal Services	Joel Jamnik	Campbell Knutson	651.234.6219
		Grand Oak Office Center I 860 Blue Gentian Road #290	jjamnik@ck-law.com
		Eagan, MN 55121	
Administrative	Judie Anderson	JASS	763.553.1144
Services		3235 Fernbrook Lane	judie@jass.biz
	Amy Juntunen Beverly Love	Plymouth, MN 55447	amy@jass.biz beverly@jass.biz
	beverly Love		DEVELTY@Jass.DIZ
I			

#### **Third Generation Watershed Management Plan**

The Elm Creek Watershed Management Commission's Third Generation Watershed Management Plan ("the Plan") was approved by the Board of Water and Soil Resources (BWSR) on September 23, 2015, and adopted by the Commission on October 14, 2015.

The Plan includes information required in the Minnesota Administrative Rules Chapter 8410, Local Water Management: 1) an updated land and water resource inventory; 2) goals and policies; 3) an assessment of problems and identification of corrective actions; 4) an implementation program; and 5) a process for amending the Plan. This Plan also incorporates information and actions identified in the Elm Creek Watershed-wide Total Maximum Daily Load study (TMDL) and Watershed Restoration and Protection Strategy study (WRAPS), completed between 2009 and 2016.

The Commission, along with the Citizen and Technical Advisory Committees (CAC and TAC), identified a number of issues during the planning process. As these issues were identified, the Commission developed a list of priorities to guide water resources planning and management functions. The issues and subsequent priorities are enumerated on page 3 of the Annual Report.

The goals and policies created as a result of this process include the following:

#### Goals

#### Water Quantity

- Maintain post-development 2-year, 10-year, and 100-year peak rate of runoff at predevelopment level for the critical duration precipitation event.
- Maintain post-development annual run-off volume at pre-development volume.
- Prevent loss of floodplain storage below the established 100-year elevation.
- Reduce peak flow rates in Elm, Diamond, and Rush Creeks and tributary streams to the Crow and Mississippi and preserve conveyance capacity.

#### Water Quality

- Improve Total Phosphorus concentration in the impaired lakes by 10% over the 2004-2013 average by 2024.
- Maintain or improve water quality in the lakes and streams with no identified impairments.
- Conduct a TMDL/WRAPS progress review every five years following approval of the TMDLs and WRAPS studies.
- Use information in the WRAPS to identify high priority areas where the Commission will
  partner with cities and other agencies to provide technical and financial assistance.

#### Groundwater

- Promote groundwater recharge by requiring abstraction/infiltration of runoff from new development/redevelopment.
- Protect groundwater quality by incorporating wellhead protection study results into development and redevelopment Rules and Standards.

#### Wetlands

- Preserve the existing functions and values of wetlands within the watershed.
- Promote the enhancement or restoration of wetlands in the watershed.

#### **Drainage Systems**

• Continue current Hennepin County jurisdiction over county ditches in the watershed.

#### Operations and Programming

- Identify and operate within a sustainable funding level that is reasonable to member cities.
- Foster implementation of priority TMDL and other implementation projects by sharing in their cost and proactively seeking grant funds.
- Operate a public education and outreach program to supplement NPDES Phase II education requirements for member cities.
- Operate a monitoring program sufficient to characterize water quantity, water quality, and biotic integrity in the watersheds and to evaluate progress toward meeting goals.
- Maintain rules and standards for development and redevelopment consistent with local and regional TMDLs, federal guidelines, source water and wellhead protection requirements, nondegradation, and ecosystem management goals.
- Serve as a technical resource for member cities.

#### *Implementation*

The Third Generation Watershed Management Plan continues a number of activities that have been successful in the past and introduces some new activities, including modified development rules and standards and an enhanced monitoring program.

#### **Rules and Standards**

The Commission updated policies from their Second Generation Plan and developed new standards based on the 2013 Minnesota NPDES General Permit for Municipal Separate Storm Sewer Systems (MS4s), the 2013 Minnesota NPDES Construction Stormwater General Permit, and the MPCA's Minimal Impact Design Standards and State Stormwater Manual. These were compiled and codified into a Rules and Standards document and adopted in advance of the Third Generation Plan, effective January 1, 2015.

In general, the new Rules and Standards apply to all development and redevelopment that are

- one acre or more in size;
- require at a minimum no increase in pollutant loading or stormwater volume;
- require no increase in the peak rate of runoff from the property;
- require the abstraction/infiltration of 1.1 inches of runoff from impervious surfaces; and
- clarify the wetland buffer requirements.

The Plan also provides a method by which member cities can take on review responsibilities for smaller projects, reducing the regulatory burden for small developers.

#### **Monitoring Program**

The monitoring program continues the partnership with Three Rivers Park District (TRPD) and the United States Geological Survey (USGS) for routine flow and water quality monitoring on Elm Creek, with periodic monitoring on additional Elm Creek sites, and on Rush, North Fork Rush, and Diamond Creeks on a rotating or as-needed basis. Four lakes – Weaver, Fish, Rice, and Diamond Lakes – have been classified as "Sentinel Lakes," and are monitored every year. Other lakes will be monitored on a rotating basis.

#### **Education and Outreach**

The Citizens Advisory Committee (CAC) developed a recommended Education and Outreach program that identifies stakeholder groups and key education messages. This Plan expands education and outreach activities to key stakeholders and continues collaborative partnerships with organizations such as the West Metro Water Alliance (WMWA), NEMO (Nonpoint Education for Municipal Officials), and WaterShed Partners.

#### **Other Activities**

The Implementation Plan includes funding for BMP assessments and special studies such as feasibility studies and special monitoring that will identify the most cost-effective practices and projects.

#### **WRAPS Implementation**

The Plan includes key findings and actions identified in the Elm Creek Watershed Restoration and Protection Strategies (WRAPS) study, which includes Total Maximum Daily Loads (TMDLs) for the impaired waters and improvement and protection strategies and activities for all waters.

### **Local Water Management Plan Requirements**

Local water management plans adopted by member cities pursuant to Minnesota Statutes, Section 103B.235 shall be consistent with the Commission's Third Generation Watershed Management Plan. Local plans must comply with MN Statutes, Section 103B.235 and MN Rules 8410 regarding local plan content.

- 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 sections of the Commission's Plan's Inventory and
  Condition Assessment by reference unless the city has more recent information, such as
  revised figures and data.
- Explain how the goals and policies, and rules and standards in the Commission's Plan will be implemented at the local level, including any necessary modifications of local ordinances, policies, and practices and specifically addressing adoption and enforcement of a manure management ordinance.
- 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 and the WRAPS study, including identifying known upcoming projects including street or highway reconstruction projects that will provide opportunities to include load and volume reduction BMPs.
- Show how the member city will, through an executed and recorded maintenance and
  inspection agreement, inspect or cause to be inspected and documented at least every five
  years privately owned permanent BMPs installed to meet the goals and policies and rules
  and standards of the Commission's Plan, and the actions the member city will take to
  assure that the BMPs are maintained and operated as designed.
- Update existing or potential water resource related problems and identify nonstructural, programmatic, and structural solutions, including those program elements detailed in MN Rules 8410.0100, Subp. 1-6.
- Summarize the estimated cost of implementation and analyze the member city's ability to finance the recommended actions.
- 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.

# Projects Reviewed in 2020

Dunio et Ml.	Paris of No.	<u> </u>	Reviewed for Rules*						
Project Number	·		D	E	F	G	Н	I	
2017-039	Rush Creek Apartments)	Maple Grove	х	х				Х	
2018-033	Cloquet Island Estates	Dayton	х	х				Х	
2019-001	Fernbrook View Apartments	Maple Grove	х	х				Х	
2019-026	Interstate Power Systems	Rogers	х	х		х			
2019-031	Hassan Sand & Gravel – Zachman Property	Rogers		х	х			х	
2019-032	OSI, Inc. Headquarters Addition	Medina	х	х	х			х	
2020-001	Markets at Rush Creek Outlot L	Maple Grove	х	х					
2020-002	Project 100	Maple Grove	х	х				х	
2020-003	Palisades at Nottingham Second Addition	Maple Grove	х	х				Х	
2020-004	Elm Road Area Project	Maple Grove	х	х	х	х	х	х	
2020-005	Territorial Development Project EAW	Rogers	х	х	х	х			
2020-006	Zachary Villas	Dayton	х	х					
2020-007	Pineview Lane and Oakview Lane Improvements	Dayton	х	х	х				
2020-008	Ione Gardens	Dayton	х	х		х		х	
2020-009	Stetler Barn	Medina	х	х				х	
2020-010	Birchwood	Rogers	х	х				х	
2020-011	Bellwether 4th Addition	Corcoran	х	х	х	х			
2020-012	2020 Wayzata HS Parking Lot Improvements	Plymouth	х	х					
2020-013	Territorial Greens West	Maple Grove	х	х		х		х	
2020-014	Territorial Greens East	Maple Grove	х	х					
2020-015	Dayton Interchange Business Center	Dayton	х	х		х		х	
2020-016	Lennar Territorial Road Development (Skye Meadow)	Rogers	х	х	х	х		х	
2020-017	Meadow View Townhomes	Medina	х	х	х	х		х	
2020-018	Minnesota Health Village Street Wetland Restoration	Maple Grove							
2020-019	Sundance Greens 4th Addition	Dayton	х	х	х	х		х	
2020-020	Crow-Hassan Riverbank Stabilization	Rogers	x		х				
2020-021	Industrial Boulevard Extension	Rogers	х	х	х				
2020-022	Elm Road Area Project Street and Utilities Project	Maple Grove	х	Х	х	х	х		
2020-023	Ziegler Dayton Site Upgrades	Dayton	х	х		х		х	
2020-024	Walti Culvert Exchange	Corcoran							

\*Rule D – Stormwater Rule E – Erosion Control Rule F – Floodplain Rule G – Wetlands Rule H – Bridge, Culvert Crossing

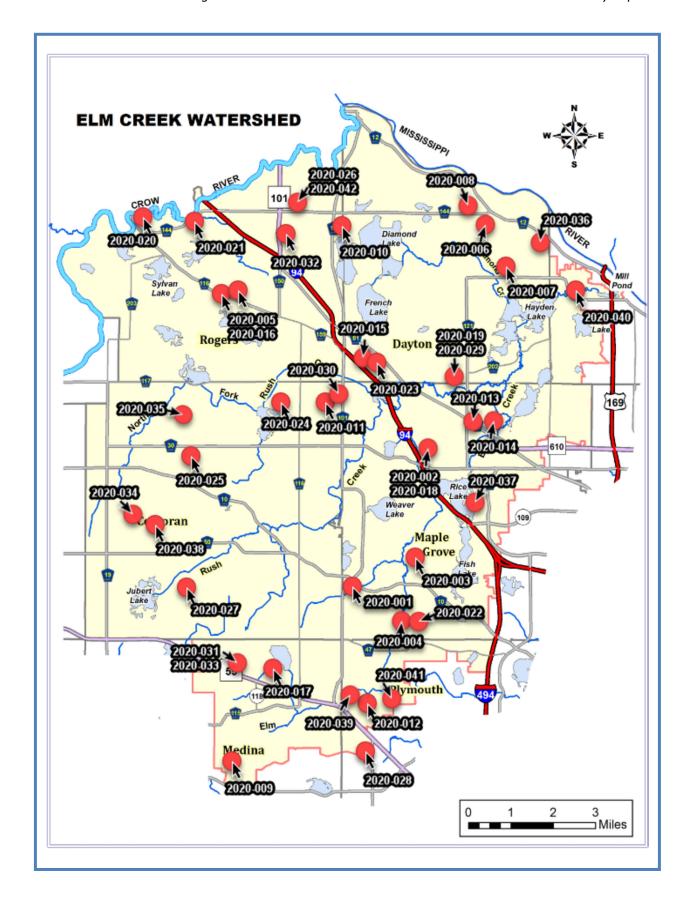
Rule I - Buffers

Project Number	Rate Control (cfs) (pre- and post-development)			Net Change Nutrient Control (lbs./yr) (pre- and post- development		Net Change				
	2-yr pre   post	10-yr pre   post	100-yr pre   post	TP load #/yr re- reduction	TSS load #/yr reduction	Runoff volume (AF/yr)	Abstraction (CF)	Filtration/ biofiltration (CF)	Comments/ notes	
2017-039										
2018-033										
2019-001										
2019-026										
2019-031										
2019-032	19.8/10.2	38.7/24	83.0/66.0	-4.1	-34	6.4		28,000		
2020-001								Prior approval	/documentation	
2020-002	72.7/14.0	137.7/52.7	382.6/122.9	-12.0	-3,304	84.3		317,100		
2020-003	3.5/3.0	7.8/7.7	18.1/16.8	-0.5	-163	5.04		7,035		
2020-004	76.1/67.7	166.7/158.3	370.1/338.7	-3.8	-2,307	31.7		84,424		
2020-005									EAW	
2020-006	1.4/1.4	2.1/2.0	4.2/4.0	See co	mments	0	35,800	TP/TSS met I	by abstraction	
2020-007	38.6/37.7	76.3/71.2	153.5/139.1	-0.4	-572	4.03		24,000		
2020-008	2.9/2.9	11.2/9.5	32.7/31.5	-0.6	-1,288	7.71	242,629			
2020-009	9.4/6.9	21.2/20.4	50.6/50.6	0	-44	N/A		2408 thru excess	Abstraction s buffer	
2020-010	23.3/15.0	41.4/35.6	146.2/62.1	-0.5	-3,155	12.8		36,063		
2020-011								Regional facili	ities from 2018-	
2020-012							2,960 (irrigation)	Regional facili	ities from 2015-	
2020-013	22.8/14.5	45.3/36.3	96.4/74.8	0	-764	-11.0	(iiiigation)	19,963		
2020-014	9.5/3.4	21.6/10.0	47.2/19.4	-2.4	-458	8.44		24,830		
2020-015									denied	
2020-016	196.9/95.3	334.2/188.7	614.9/376.4	-20.9	-3,543	50.8		177,942		
2020-017	39.7/10.9	79.4/30.7	144.9/65.3	-13.5	-3,171	-0.49	81,239		irrigation	
2020-018									WCA	
2020-019									Rule E only	
2020-020								Rules	E&F only	
2020-021	4.2/3.4	14.5/11.3	150.6/133.8	-3.8	-1,243	-1.45	29,795			
2020-022	29.3/28.5	41.2/40.3	61.1/58.9	-2.9	-39	4.78		20,240		
2020-023	9.1/6.2	16.8/15.7	30.4/21.2	-1.2	-17	2.09		10,431		
2020-024								Rules	E&F only	

# Projects Reviewed in 2020

		<b>a</b> :.	Reviewed for Rules*							
Project Number	Project Name	City	D	E	F	G	Н	I		
2020-025	Paulsen Farms	Corcoran	х	х		х		х		
2020-026	2020 Rogers HS Addition and Renovations	Rogers	х	х						
2020-027	Kariniemi Addition	Corcoran	х	х	х	х		х		
2020-028	Perl Gardens	Plymouth	х	х						
2020-029	Sundance Greens 5th Addition	Dayton								
2020-030	Nelson International	Corcoran								
2020-031	Chippewa Rd Extension/Weston Woods EAW	Medina								
2020-032	Enclave Rogers - Commerce Boulevard	Rogers	х	х				х		
2020-033	Weston Woods	Medina	х	х	х	х	х	х		
2020-034	Erickson Residence- Strehler Road	Corcoran		х						
2020-035	Presteng Residence	Corcoran	х	х						
2020-036	Balsam Pointe	Dayton	х	х		х		х		
2020-037	Rice Lake Elementary Addition	Maple GroveG	х	х						
2020-038	8310 Strehler Road (H Lindberg Residence)	Corcoran	х							
2020-039	Elm Creekside Hills Trail	Plymouth		х	х	х	Х	х		
2020-040	The Cedars of Elm Creek 3rd Addition	Champlin		х	х					
2020-041	Plum Tree East Drainage Improvement	Plymouth		х		Х				
2020-042	2020 Rogers High School Athletic Field Replacement	Rogers	х	х						

Project Number		Rate Control (cfs) (pre- and post-development)			Net Change Nutrient Control (lbs./yr) (pre- and post- development		Net Change		
	2-yr pre   post	10-yr pre   post	100-yr pre   post	TP load #/yr re- reduction	TSS load #/yr reduction	Runoff volume (AF/yr)	Abstraction (CF)	Filtration/ biofiltration (CF)	Comments/ notes
2020-025									Withdrawn
2020-026	17.5/7.0	54.3/37.3	150.3/112.9	-0.13	-23	-0.15		Regional por	nd reductions
2020-027	26.7/26.4	52.0/46.4	111.4/91.0	-1.5	-415	2.01		6.0	alt. credit
2020-028				-0.9	-672	3.95		36,416	
2020-029								incomplete	
2020-030	10.2/4.4	29.4/12.6	48.1/29.3	-0.3	-553	8.2		28,428	
2020-031									
2020-032				-3.1	-682			8,584 Regional storm	
2020-033								incor	mplete
2020-034								Rule	E only
2020-035	5.9/4.0	10.2/7.5	19.3/15.2	-0.75	-191	0.41	882	Abst. A	lt credits
2020-036	0/0	0.2/0.1	11.5/11.1	0	-17	0	34,300		
2020-037	13.5/3.2	25.7/6.9	54.1/14.1	-2.2	-474	N/A		7,325	
2020-038								Rule	E only
2020-039								Rules E,F,H only	
2020-040								Rules E	&F only
2020-041								Rule E only	
2020-042	25.3/24.8	60.1/59.3	138.7/137.1/	0	0	0		Region	nal pond

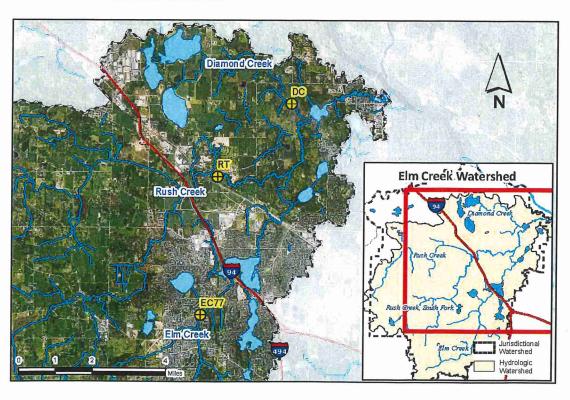


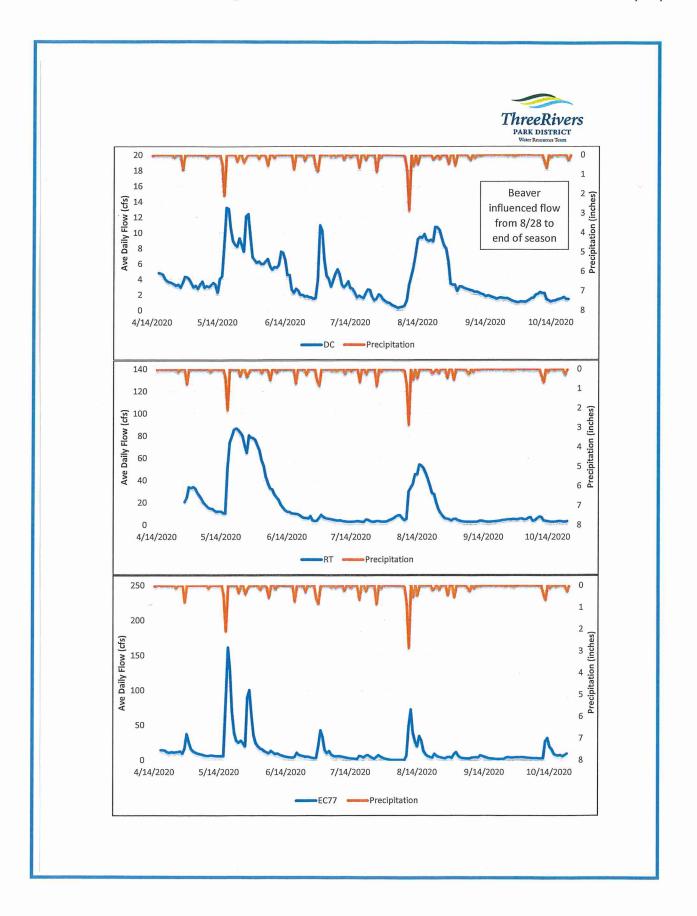


# Elm Creek Stream Monitoring – 2020

Monitoring occurred from April 17, 2020 to October 23, 2020. During the monitoring period, there were 19 inches of rain. Three sites were monitored for flow:

- DC Diamond Creek within Elm Creek Park Reserve
  - o Average flow: 3.9 cfs
  - o Minimum flow: 0.31 cfs
  - o Maximum flow: 13.2 cfs
- RT Rush Creek at Territorial Road
  - o Average flow: 17.2 cfs
  - o Minimum flow: 2.8 cfs
  - o Maximum flow: 87 cfs
- EC77 Elm Creek at Medicine Lake Regional Trail
  - o Average flow: 13 cfs
  - o Minimum flow: 0.0 cfs
  - o Maximum flow: 162 cfs





# **2020 Stream Monitoring**

#### **United States Geological Survey**

There are three hydrologic watersheds within the administrative boundaries of the Elm Creek Watershed Management Commission – Elm Creek, Crow River and Mississippi River. The Elm Creek watershed contains several large depressions and drainageways. Stormwater within Elm Creek watershed is generally directed from the south and west to northeast via four main drainage ways – Rush Creek, North Fork Rush Creek, Diamond Creek, and Elm Creek. These drainage ways converge in the Elm Creek Park Reserve and enter Hayden Lake. Water is eventually discharged to the Mississippi River near the Mill Pond in Champlin.

Northwest areas of Rogers drain to Crow River. Within this area, Fox Creek is the main drainage way that collects stormwater along the I-94 corridor and the area between I-94, Territorial Road and Fletcher Lane. Areas north of I-94 and along the Highway 101 corridor drain north to the Crow River, mostly along the corridor. The northern quarter of Dayton flows north into the Mississippi River with a small area on the northwest side of Dayton draining to the Crow River. There are no major drainageways in these areas.

Elm Creek has been monitored since 1976 by a station located in Champlin. The monitoring station for Elm Creek is located at Elm Creek Road crossing in the Elm Creek Park Reserve and is operated in cooperation with the United States Geological Survey (USGS). The exact location is: latitude 45°09′48″, longitude 93°26′11″ referenced to North American Datum of 1927, in NE ¼ NW ¼ Sec.35, T.120 N., R.22 W., Hennepin County, MN, Hydrologic Unit 07010206, on left bank, 33 feet downstream from bridge on Elm Creek Road, 2.5 mi southwest of Champlin. Datum of the gage is 850.70 ft above sea level (NGVD of 1929). The Commission shares the costs of operating the station, which collects continuous flow data and periodic event and base water quality data. The watershed area above the gauging station is 86 square miles, or 81% of the hydrologic watershed.

Both grab samples and storm runoff samples are collected and analyzed for various parameters. Analyses of the streamflow and water quality monitoring data for Elm Creek and its tributaries are summarized below. Real time data from the monitoring station in Champlin may be viewed on the Internet at

http://waterdata.usgs.gov/mn/nwis/uv/?site no=05287890&PARAmeter cd=00065,00060.

#### Flow Monitoring

Storm event samples are collected using an automatic sampler. Routine manual sampling occurs approximately monthly. The average mean discharge for the 2019 WY (October 1, 2018 through September 30, 2019) was 94.6 cfs. Note that WY 2019 had the highest average annual mean discharge in the 40-year history of the Elm Creek monitoring gage.

The average daily discharge for the 2020 water year (October 1, 2019 to September 30, 2020) is not available as of this update. County Road 202 (Elm Road) bridge replacement took place between November 2018 to June 2019 affecting the stage-discharge relationship (flows) at the monitoring station. This stage-discharge relationship has been rectified for this report.

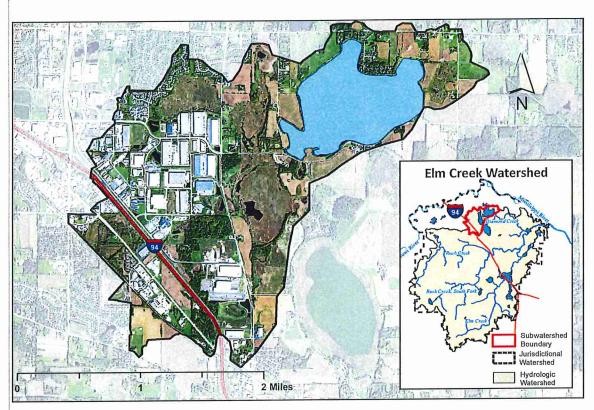
Final data shows an annual mean discharge of 94.6 cfs during the 2019 water year. The 2019 water year had prolonged flows that were higher and discharged more water downstream of the station than any time during the 40 years the station has been in place. During the 2019 water year the minimum and maximum observed average daily discharge values were 4.86 cfs on February 20, 2019 and 817 cfs on March 24, 2019. The long-term average daily discharge at the station is 43.6 cfs or 6.88 inches (years 1979-2019). A spreadsheet of the data received in 2019 water year (WY), including daily discharge and summary information, long-term flow volumes (calendar and water years), and the daily mean flow hydrograph follow.

	Elm Creek Annual Instantaneous Peak Discharge Rates											
Date	Peak Flow (cfs)	Date	Peak Flow (cfs)	Date	Peak Flow (cfs)	Date	Peak Flow (cfs)					
4/4/79	307	6/1/91	371	6/28/03	695	7/19/15	127					
3/25/80	199	3/8/92	380	6/03/04	350	9/24/16	1,220**					
6/15/81	44	6/22/93	315	10/30/04	118	5/23/17	482					
4/3/82	471*	4/30/94	669*	10/09/05	295	4/25/18	405					
3/9/83	408	3/17/95	237	3/17/07	223	3/24/19	836					
2/25/84	341	3/19/96	407	5/4/08	205							
3/18/85	579*	4/1/97	511*	3/27/09	119							
3/27/86	812*	4/5/98	306	3/17/10	369							
8/1/87	185	5/15/99	538*	3/24/11	803							
3/27/88	39	7/13/00	112	5/29/12	568							
3/31/89	159	4/25/01	875	6/26/13	389							
8/1/90	225	5/11/02	554	5/1/14	803							

<sup>\*</sup>These values have been revised based on the 2001 rating curve.

<sup>\*\*</sup>All-time instantaneous peak discharge. The estimated 100-year flood discharge at this site is 2,290 cfs.

# **Diamond Lake Watershed Map**



# Diamond Lake Bathymetry



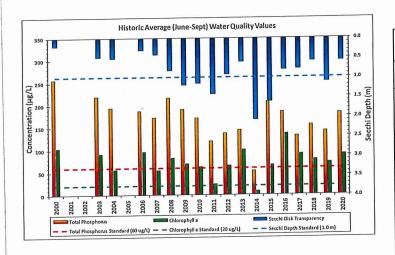
# Lake and Watershed Characteristics

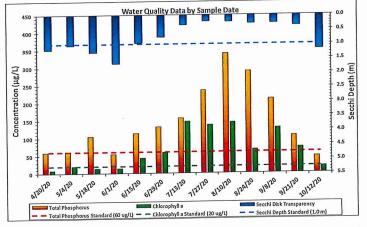
DNR#	27012500
Watershed Area	2,367 Acres
Lake Area	382 Acres
Percent Littoral Area	100%
Average Depth	3.97 ft.
Maximum Depth	7.37 ft.
Watershed Area:Lake Area	6.2:1
Impairment Classification	Excess Nutrients 2006
Classification	Shallow Lake

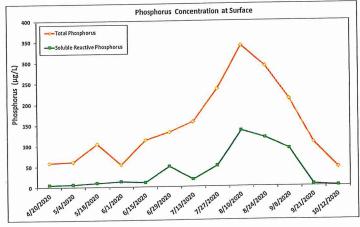
Water Resource Department Map Created: 11/24/2017 Revised Date: 12/4/2017 This map is a compilation of data from various sources and is provided "as is" without warranty of any representation of accuracy, timeliness, or completeness. The user acknowledges and accepts imitations of the bas, including the fact that the Date is grammated to the providence of the providence o



# **Diamond Lake**







Diamond Lake Water Quality Report Card					
Year	TP	Chl-a	Secchi	Avg Grade	
1998	D	D	F	D-	
1999					
2000	F	F	F	F	
2001					
2002					
2003	F	F	F	F	
2004	F	D	F	F	
2005					
2006	F	F	F	F	
2007	F	D	F	F	
2008	F	F	D	F	
2009	F	D	С	D	
2010	F	D	D	D-	
2011	D	С	С	C-	
2012	D	D	D	D	
2013	D	F	F	F	
2014	С	Α	С	B-	
2015	F	D	С	D	
2016	F	F	D	F	
2017	D	F	D	D-	
2018	F	F	F	F	
2019	D	D	D	D	
2020	F	F	F	F	
MPCA Standard	С	С	D	C-	

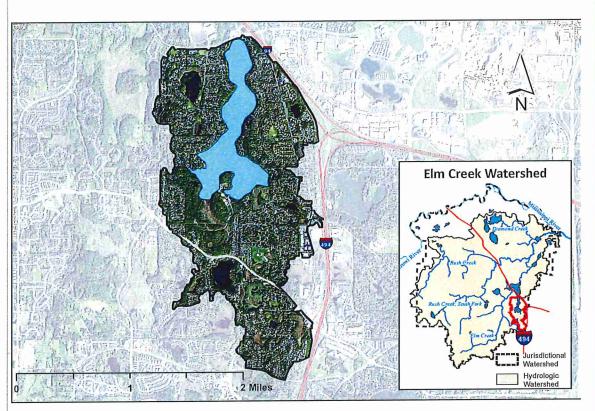
Met Council Grading System for Lake Water Quality



Division of Water Resources

December 2020

# Fish Lake Watershed Map



# Fish Lake Bathymetry



### Lake and Watershed Characteristics

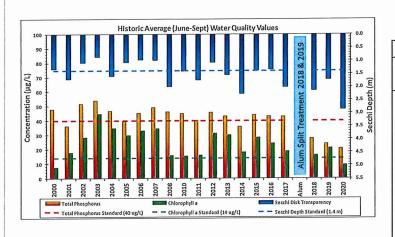
Lake and Waterened	311di dotoriotico
DNR#	27011800
Watershed Area	1,611 Acres
Lake Area	232 Acres
Percent Littoral Area	32%
Average Depth	20.5 ft.
Maximum Depth	62 ft.
Watershed Area:Lake Area	6.9:1
Impairment Classification Exc	ess Nutrients 2008
Classification	Deep Lake

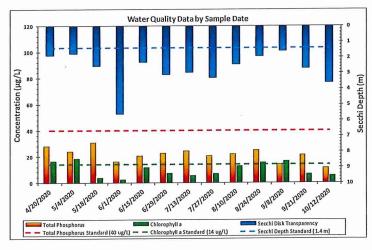
Water Resource Department Map Created: 11/24/2017 Revised Date: 12/6/2017 This map is a compilation of data from various sources and is provided "as is" without warranty of any representation of accuracy, timeliness, or compileteness. The user acknowledges and accepts the limitations of the Data, including the fact that the Data is dynamic and in a constant state of maintenance, correction, and update.

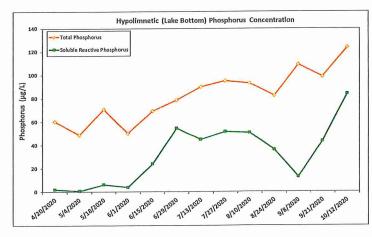


. .

## Fish Lake







Fish Lake Water Quality Report Card									
Year	TP	Chl- a	Secchi	Avg Grade					
1995			С	С					
1996			В	В					
1997	С	С	С	С					
1998		В	С	C+					
1999	С	В	С	C+					
2000	С	Α	С	B-					
2001	С	В	С	C+					
2002	С	С	D	C-					
2003	С	С	D	C-					
2004	С	С	С	С					
2005	С	С	D	C-					
2006	С	С	D	C-					
2007	С	С	D	C-					
2008	С	В	С	C+					
2009	С	В	С	C+					
2010	С	В	С	C+					
2011	С	В	C	C+					
2012	С	С	D	C-					
2013	С	С	С	С					
2014	С	В	В	B-					
2015	С	С	С	С					
2016	С	С	С	С					
2017	С	В	С	C+					
2018	В	В	С	B-					
2019	В	С	С	C+					
2020	Α	Α	В	A-					
MPCA Standard	С	В	С	C+					

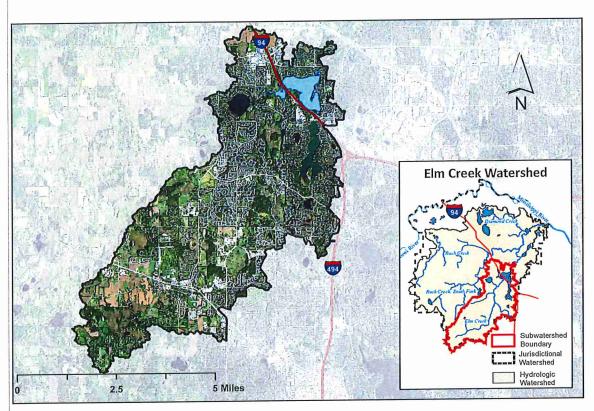
Met Council Grading System for Lake Water Quality



Division of Water Resources

December 2020

# **Rice Lake Watershed Map**



# Rice Lake Bathymetry



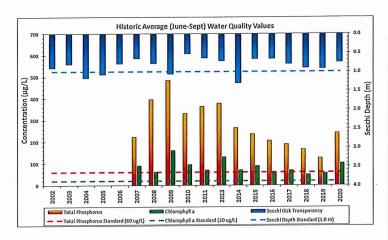
## Lake and Watershed Characteristics

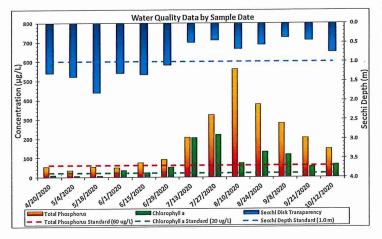
DNR#	27011601
Watershed Area	16,092 Acres
Lake Area	307 Acres
Percent Littoral Area	100%
Average Depth	7.02 ft.
Maximum Depth	10.14 ft.
Watershed Area:Lake Area	52.4:1
Impairment Classification	Excess Nutrients 2010
Classification	Shallow Lake

Water Resource Department Map Created: 11/24/2017 Revised Date: 12/4/2017 This map is a compilation of data from various sources and is provided "as is" without warranty of any representation of accuracy, timeliness, or compilateness. The user acknowledges and accepts the limitations of the Data, including the fact that the Data is dynamic and ha a constant data of maintenance, correction, and update.



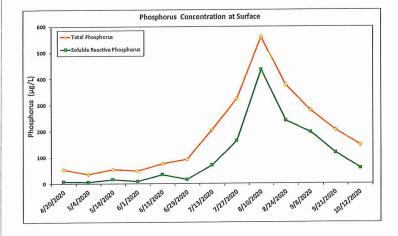
### **Rice Lake**





Rice Lake	Rice Lake - Main Basin Water Quality Report Card								
Year	TP Chl-		Secchi	Avg Grade					
2002			D	D					
2003			D	D					
2004			D	D					
2005			D	D					
2006			D	D					
2007	F	F	F	F					
2008	F	D	D	D-					
2009	F	F	D	F					
2010	F	F	F	F					
2011	F	D	F	F					
2013	F	F	D	F					
2014	F	D	С	D					
2015	F	F	F	F					
2016	F	D	F	F					
2017	F	D	D	D-					
2018	F	D	D	D-					
2019	D	D	D	D					
2020	F	F	D	F					
MPCA Standard	С	С	D	C-					

Met Council Grading System for Lake Water Quality

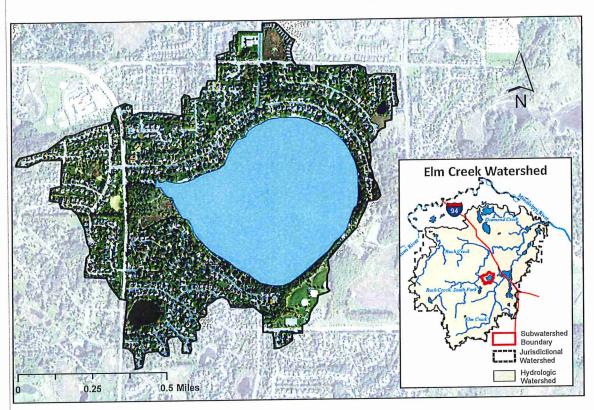




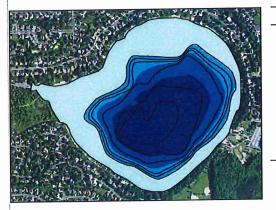
Division of Water Resources

December 2020

# Weaver Lake Watershed Map



# Weaver Lake Bathymetry



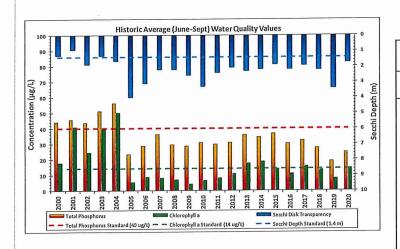
## Lake and Watershed Characteristics

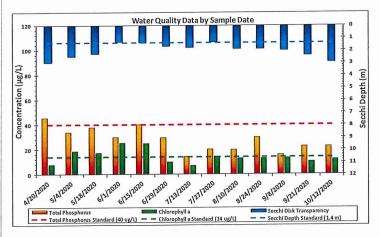
DNR#	27011700
Watershed Area	187 Acres
Lake Area	150 Acres
Percent Littoral Area	47%
Average Depth	21.1 ft.
Maximum Depth	52 ft.
Watershed Area:Lake Area	1.3:1
Impairment Classification	None
Classification	Deep Lake
Oldoomodion	

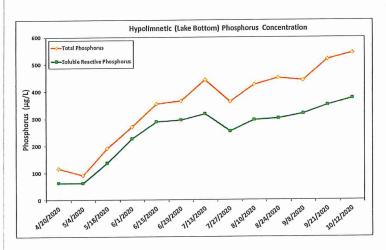
Water Resource Department Map Created: 11/24/2017 Revised Date: 12/4/2017 This map is a compilation of data from various sources and is provided "as is" without warranty or any representation of accuracy, limeliness, or completeness. The user acknowledges and accepts the limitations of the Data, including the fact that the Data is dynamic and in a constant state or maintenance, correction, and upplate.



### **Weaver Lake**







Weaver Lake Water Quality Report Card								
Year	TP	Chl-	Secchi	Avg Grade				
1997	В	Α	С	В				
1998	С	В	С	C+				
1999	С	С	С	С				
2000	0 0 0 0 0	В	С	C+				
2001	С	С	D	C-				
2002	С	C	С	С				
2003	С	С	С	С				
2004	С	D	С	C-				
2005	В	Α	Α	A-				
2006	В	Α	Α	A-				
2007	С	Α	В	В				
2008	В	Α	В	B+				
2009	В	Α	В	B+				
2010	В	Α	Α	A-				
2011	В	Α	В	B+				
2012	В	В	С	B-				
2013	С	В	В	B-				
2014	С	В	В	B-				
2015	С	В	С	C+				
2016	В	В	С	B-				
2017	С	В	С	C+				
2018	В	В	В	В				
2019	Α	Α	Α	Α				
2020	В	В	С	B-				
MPCA Standard	С	В	С	C+				

Met Council Grading System for Lake Water Quality

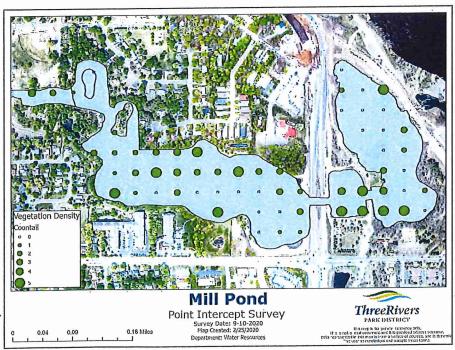


Division of Water Resources

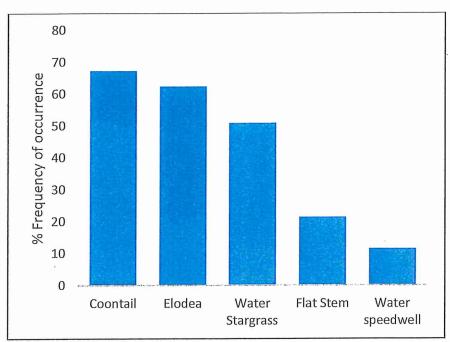
December 2020

# Champlin Mill Pond Point Intercept Rake Survey Results September 2020

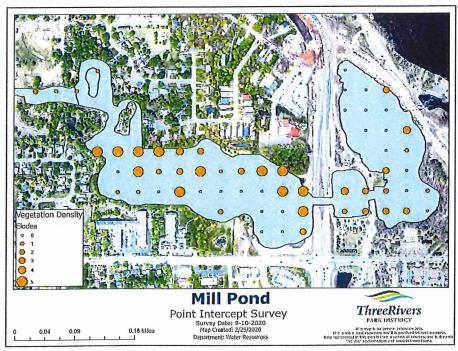
Scientific Name	Common Name	% Freq
Ceratophyllum demersum	Coontail	67
Elodea canadensis	Elodea	62
Heteranthera dubia	Water stargrass	51
Potamogeton zosteriformis	Flat stem pondweed	21
Veronica anagallis-aquatica	Water speedwell	11
Ludwigia palustris	Water purslane	8
Potamogeton spp.	Narrow pondweed	7
Utricularia vulgaris	Common bladderwort	5
Potamogeton crispus	Curly leaf	3
Stuckenia pectinata	Sago	3
Valisneria Americana	Water celery	2
Nitella spp	Nitella	2
% Frequency of submerged s	pecies	70
# Native/non-native submers	sed taxa	12/1



Coontail distribution and relative abundance.



Percent frequency of most common (>10% frequency) plants.



Elodea distribution and relative abundance.



This report card Produced by TRPD Water Resources Dept. February, 2021.

# **Lake Monitoring History**

	ید	ley	Diamond	αλ		ch	<u>,</u>	ırt	ø.	lina	Mill Pond			an		iver
	Cook	Cowley	Dian	Dubαy	Fish	French	Henry	Jubert	Laura	Medina	Mill	Mud	Rice	Sylvan	Teal	Weaver
2020			Т		Т								Т		С	Т
2019			Т		Т								Т			Т
2018			Т		Т			С					Т			T
2017			Т		Т			С					Т			T
2016		С	Т		Т			С					Т			T
2015			Т		Т			С	С				Т			Т
2014			Т	С	Т				С		Т		Т	С		T
2013			Т	С		Т			С		Т		Т	С		T
2012			Т	С	Т	Т				С	Т			С		Т
2011			T	С	T	Т	С				Т		С			T
2010		С	Т		T	Т	С				Т	T	C/T			T
2009		С	Т		Т	Т	С				Т		С			T
2008			T		T		С						С	С		T
2007		С	Т		Т		С						С			Т
2006		С			Т	Т	С									Т
2005					Т	Т	С									Т
2004			Т		T	Т										T
2003																
2002					T	С					Т					T
2001	Т				T	С										T
2000					Т			С								Т
1999					Т						Т					T
1998			Т		T											T
1997					Т									Т		T
1996					Т											Т
1995					Т		С									Т
1994			С		Т											T
1993					Т											T
1992	Т		Т		Т											T
1991					Т			Т			Т					T
1990	Т		_	_	T	Т		_		-						T
1989			Т	Т	Т			Т								T
1988	Т				Т						Т					Т
1987					Т			Т								Т
1986	Т		Т	Т	T							T				Т

T = monitored by Three Rivers Park District

C = monitored through CAMP program

## CITIZEN-ASSISTED MONITORING PROGRAM (CAMP)

Engaging residents to address lake water quality issues



The Metropolitan Council's Citizen-Assisted Monitoring Program (CAMP) is a partnership to collect and analyze scientifically valid water-quality data from lakes in the seven-county Twin Cities area. Organizations and residents use the data to make better decisions about lake management.



<u>Citizen-Assisted Monitoring</u> <u>Program Brochure (pdf)</u>

Under CAMP, sponsor organizations recruit volunteers to track water quality in local lakes. Sponsor organizations include counties, cities, watershed districts and other local governments.

Each volunteer monitors a specific site on a lake on a regular basis from mid-April through mid-October (every two weeks is most common). Volunteers collect a surface water sample, measure water temperature and clarity, and report weather and lake conditions.

With help from their sponsors, volunteers provide the data and samples to Metropolitan Council Environmental Services (MCES). MCES analyzes the samples, reviews and analyzes data, assesses and reports on current lake conditions, and manages the CAMP program. CAMP is part of Met Council's Lake Monitoring & Assessment Program.

#### **2020 CAMP**

Teal Lake in Maple Grove was chosen as the lake to be monitored through CAMP in 2020. Teal Lake Conservation Association members performed the monitoring. Monitoring results will be available in 2021 on the Met Council's website, <a href="https://metrocouncil.org/Wastewater-Water/Services/Water-Quality-Management/Lake-Monitoring-Analysis/Citizen-Assisted-Monitoring-Program.aspx.">https://metrocouncil.org/Wastewater-Water/Services/Water-Quality-Management/Lake-Monitoring-Analysis/Citizen-Assisted-Monitoring-Program.aspx.</a>

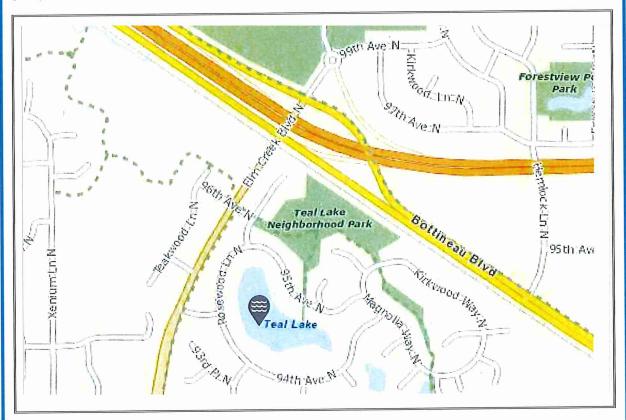
Following completion of their monitoring activities, the members of the Teal Lake Conservation Association posed the following questions to Metropolitan Council Environmental Services Staff:

### Q. When and how will we find out the results of the water testing?

A. MCES staff review the data during the late fall and early winter, and plan to have the final results available via our website by end of January 2021. The lab usually completes the analyses of the last round of samples by end of December. The data from all the lakes in the CAMP are summarized in an annual lake report the year following the monitoring season. A smaller summary report is also produced which provides a map that summarizes the lake grades for the lakes in the CAMP and monitored by MCES staff.

#### Q. What was tested for?

A. The main parameters are Total Phosphorus (TP), Total Kjeldahl Nitrogen (TKN), Chlorophyll-a (CLA), Water Clarity (Secchi depth), and water temperature.



#### Q. What are the results and how do they compare to other lakes?

A. Each lake site is given a grade (A - F) based on the TP, CLA, and water clarity results. The grades give a relative comparison of the open water quality of the lake to other lakes in the Twin Cities metro area. A lake with a C grade is considered to have average water quality for the metro area, whereas A lakes are much above average and F lakes are much worse than average.

#### Q. What do those results mean?

A. CAMP monitoring focuses on the assessment of eutrophication, which is the process of nutrient enrichment. Excessive nutrient enrichment is an increase in phosphorus and nitrogen in lake water which causes increased aquatic plant growth and algae blooms, which in turn can deplete oxygen and negatively affect recreation and aquatic life habitat. Human activities in the watersheds of lakes (for example, nonpoint sources) increase the delivery of nutrients to lakes beyond what occurs naturally. This acceleration of nutrient enrichment by humans is called *cultural eutrophication*. During cultural eutrophication, the population of algae increases and water clarity decreases. A variety of other problems may develop, including increases in nuisance algal blooms, odor problems, decreased desirability for recreation, decreased dissolved oxygen, fish kills, changes in the structure of fish and invertebrate communities toward low-oxygen tolerant species, and reductions in biodiversity. Furthermore, eutrophic lakes can develop blooms of toxic blue-green algae (cyanobacteria), which can be a serious health concern for humans and animals (domesticated and wild). Cultural eutrophication is one of the leading water quality concerns facing the region.

#### 2020 Education and Public Outreach

Watershed PREP is a program of the West Metro Water Alliance (WMWA), a consortium of four WMOs including the Elm Creek Watershed Management Commission and the Bassett Creek, Shingle Creek and West Mississippi WMOs, and stands for Protection, Restoration, Education, and Prevention. 2019 was the sixth year of the program. Two persons with science education backgrounds serve as contract educators to be shared between the member WMOs. The focus of the program is two-fold - to present water resource-based classes to fourth grade students and to provide education and outreach to citizens, lake associations, civic organizations, youth groups, etc.

Fourth Grade Program. Three individual classes meeting State of Minnesota education standards have been developed. Lesson 1, What is a Watershed and Why do we care?, provides an overview of the watershed concept and is specific to each school's watershed. It describes threats to the watershed. Lesson 2, The Incredible Journey, describes the movement and status of water as it travels through the water cycle. Lesson 3, Stormwater Walk, investigates movement of surface water on school grounds. The ultimate goal is to make this program available to all fourth graders in the four WMWA watersheds and to other schools as contracted. The program is offered to public, private, parochial, magnet and charter schools.

#### Watershed PREP Program participation.

Year	# Classrooms	# Students	# and Type of Schools
Lesson 1			•
2013	63	1,679	13 in six districts; one charter school; one parochial school
2014	116	3,469	30 in seven districts; one magnet school; one parochial school
2015	122	3,183	36 in nine districts; two charter schools; five parochial schools
2016	107	2,850	29 in seven districts, one charter school, 5 parochial schools
2017	121	3,249	12 in seven districts, one charter school, one parochial school
2018	143	3,593	32 in seven districts, one charter school, 2 parochial schools
2019	103	2,681	27 in six districts, two magnet schools; one parochial school
2020*	20	572	6 in four districts, two magnet schools
Lesson 2	-		
2013	14	390	Three in three districts; one charter school; one parochial school
2014	22	645	Five in three districts
2015	27	859	Six in five districts
2016	20	524	Five in three districts, one parochial school
2017	38	1,072	Seven in three districts, one parochial school
2018	69	1,755	16 in five districts, one parochial school
2019	58	1,516	16 in five districts, one magnet school
2020*	7	172	2 in two districts

<sup>\*</sup>In 2020, Watershed PREP classes were limited by the constraints of the COVID-19 pandemic that closed schools. In some cases, Watershed PREP classes were conducted virtually.

#### 2020 schools and students participating in Lesson 1: What is a Watershed?

Date	School	School District	City	Watershed	Classes	Students
1/9	Neill Elementary	Robbinsdale	Crystal	Bassett	3	60
3/4	Hassan	Elk River	Rogers	Elm	4	112
3/13	Sunset Hill	Wayzata	Plymouth	Bassett	4	110
10/4-5	Weaver Lake	Osseo	Maple Grove	Elm	6	90
12/8	SEA Magnet	Robbinsdale	Golden Valley	Bassett	3	80
12/9	Immersion	Robbinsdale	New Hope	Bassett		120
				Total	20	572

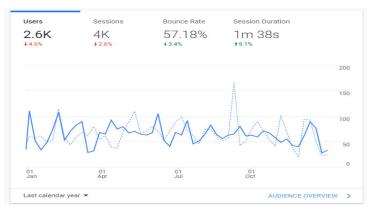
#### 2020 schools and students participating in Lesson 2: The Incredible Journey

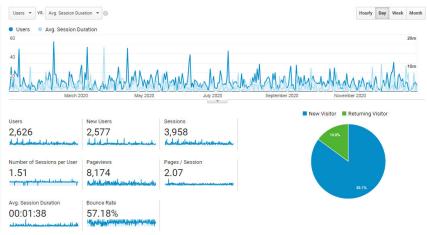
Date	School	School District	City	Watershed	Classes	Students
1/8	Neill Elementary	Robbinsdale	Crystal	Bassett	3	61
3/3	Hassan	Elk River	Rogers	Elm	4	111
				Total	7	172

One of the WMWA educators, has converted classroom Lesson #1 into a virtual, on-line learning experience. The lesson is posted to the WMWA website and to YouTube where it is available to educators, students, and the general public. She also sent out a link to the video to the teachers that she and the other educators have worked with in the classroom. The video can be viewed at westmetrowateralliance.org/.

## www.elmcreekwatershed.org

In 2020 the website had 2,626 total users; of these, 2,577 were new users in 2020. A total of 3,958 sessions occurred among all users; averaging 2.07 pages per session.





Pag	e ?		Pageviews ? ↓	Unique Pageviews	Avg. Time on Page	Entrances ?	Bounce Rate ?	% Exit ?
			8,174 % of Total: 100.00% (8,174)	6,796 % of Total: 100.00% (6,796)	00:01:32 Avg for View: 00:01:32 (0.00%)	3,958 % of Total: 100.00% (3,958)	57.18% Avg for View: 57.18% (0.00%)	48.42% Avg for View 48.42% (0.00%
1. /	/	P	2,261 (27.66%)	1,844 (27.13%)	00:00:54	1,735 (43.84%)	32.22%	32.38
2. /	/minutesmeeting-packets.html	P	1,131 (13.84%)	857 (12.61%)	00:03:37	464 (11.72%)	79.96%	69.32
3.	/lakes.html	P	529 (6.47%)	454 (6.68%)	00:02:58	423 (10.69%)	87.94%	79.40
4.	/application-requirements.html	P	459 (5.62%)	399 (5.87%)	00:03:17	131 (3.31%)	73.28%	67.32
5. /	/locations-and-maps.html	æ	360 (4.40%)	311 (4.58%)	00:02:47	128 (3.23%)	60.16%	55.28
6. /	/project-reviews-overview.html	æ	333 (4.07%)	292 (4.30%)	00:01:51	41 (1.04%)	68.29%	45.95
7.	/staff.html	æ	319 (3.90%)	270 (3.97%)	00:01:29	111 (2.80%)	70.27%	55.49
8. /	/meetings.html	æ	289 (3.54%)	256 (3.77%)	00:00:51	167 (4.22%)	31.74%	29.41
9. /	/history.html	æ	238 (2.91%)	196 (2.88%)	00:04:04	171 (4.32%)	85.96%	71.01
10. /	/contact-us.html	P	225 (2.75%)	200 (2.94%)	00:01:20	31 (0.78%)	87.10%	42.67

# Elm Creek Watershed Management Commission 2020-2021 Operating Budgets page 1

		2020 Budget	
GENERAL OPERATING	BUDGET		
Operating Expenses			
Administrative		90,000	95,000
Watershed-	wide TMDL Admin	300	0
Grant Writing		1,000	650
Website		3,000	2,000
Legal Services		2,000	2,000
Audit		5,000	5,000
Insurance		3,900	3,800
Technical Support	- HCEE	15,000	12,000
Contingency		1,000	1,000
	Subtotal	121,200	121,450
Project Reviews			
Technical –	HCEE/Barr/SWS	0	0
Technical –	HCEE – Floodplain Modeling	39,360	0
Technical Su	pport – Consultant	185,000	185,000
Admin Supp	ort	15,000	12,000
	Subtotal	239,360	197,000
Wetland Conserva	tion Act		
WCA Expens	se – HCEE	3,000	0
WCA Expens	se – Legal	500	0
WCA Expens	se – Admin	1,000	0
	Subtotal	4,500	o
Water Monitoring			
Stream Mor	itoring		
St	ream Monitoring – USGS	24,000	24,000
St	ream Monitoring – TRPD	0	
	Extensive Stream Monitoring	7,200	7,200
	DO Longitudinal Survey	1,000	1,000
Gauging Sta	tion – Elec Bill	250	400
Rain Gauge	Network	100	(
Lake Monito	pring		
La	ke Monitoring - CAMP	760	760

# Elm Creek Watershed Management Commission 2020-2021 Operating Budgets page 2

	2020 Budget		2021 Budget
Lake Monitoring - TRPD			
Sentinel Lakes	8,100		8,10
Additional lake	2,500		2,50
Aquatic Vegetation Surveys	1,100		1,10
Source Assessment			
Watershed-wide TMDL – Follow-up - TRPD	1,000		
Wetland Monitoring - WHEP	4,000		4,00
Subtotal	50,010		49,00
Education			
Education - City/Citizen Programs	3,000		2,50
WMWA General Admin	5,000		5,00
WMWA Implementation Activities incl Watershed PREP	6,500		6,50
R Garden Workshop/Intensive BMPs	3,000		3,00
Education Grants	1,000		1,00
Macroinvertebrate Monitoring-River Watch	3,000		3,00
Ag Specialist			
Subtotal	21,500		21,00
Management Plan			
Plan Amendments	2,000		2,00
Contribution to 4th Generation Plan			10,00
Subtotal	2,000		12,00
CIPs, Grants, Special Projects, Studies	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		, , ,
Capital Outlay - CIPs - Ad Valorem	448,935	\$423,323 adjusted for admin exp, levy shortfall	175,00
Grants	125,000		125,00
Projects ineligible for ad valorem	0	\$50,000 (2019) reassigned to	
Studies, Subwatershed Assessments	0	Genl Fund 5/8/2019	
Subtotal	573,935		300,00
Contingency	0		
Subtotal	0	0	
Fotal Op Expense	1,012,505		700,51

# Elm Creek Watershed Management Commission 2020-2021 Operating Budgets page 3

	2020 Bu	dget 2021 Budget
Revenue		
CIPs - Ad Valorem	448,935	185,588
Grant Revenue	100,000	100,000
Floodplain Modeling	39,360	
Project Review Fees	80,000	100,000
Water Monitoring - TRPD Co-op Agreement	5,500	5,500
WCA Fees	0	0
Forfeited/Reimbursed Sureties, Reimbursement from LGUs		
Membership Dues	237,300	237,300
Interest Income	8,000	15,000
Dividend Income	250	250
Miscellaneous Income	0	0
Total Operating Revenue	919,345	643,638
Surplus (Deficit)	93,160	56,872

## Elm Creek Watershed Management Commission 2020-2021 Member Assessments

2020	2019 Taxable 2020 Budget Sh		dget Share	Increase over Previous Year		
2020	Market Value	%age	Dollars	%age	Dollars	
Champlin	540,590,344	4.12%	9,768.39	6.97%	284	
Corcoran	865,123,487	6.59%	15,632.66	2.56%	455	
Dayton	749,481,401	5.71%	13,543.02	8.87%	394	
Maple Grove	6,614,821,616	50.37%	119,528.89	1.93%	3,476	
Medina	1,050,664,076	8.00%	18,985.35	-1.42%	552	
Plymouth	1,418,363,351	10.80%	25,629.62	11.11%	745	
Rogers	1,893,322,435	14.42%	34,212.07	0.65%	995	
Totals	13,132,366,710	100.00%	237,300.00	2.99%	6,900	
2021						
2021	2020 Taxable	2021 Bu	dget Share	Increase ove	r Previous Year	
2021	2020 Taxable Market Value	2021 Bu %age	dget Share Dollars	Increase ove	r Previous Year Dollars	
2021 Champlin		<u> </u>	_			
	Market Value	%age	Dollars	%age	Dollars	
Champlin	Market Value 586,080,150	%age 4.13%	<b>Dollars</b> 9,801.07	%age 3.34%	Dollars 33	
Champlin Corcoran	Market Value 586,080,150 945,017,350	%age 4.13% 6.66%	9,801.07 15,803.61	%age 3.34% 4.12%	33 171	
Champlin Corcoran Dayton	Market Value 586,080,150 945,017,350 859,590,989	%age 4.13% 6.66% 6.06%	9,801.07 15,803.61 14,375.02	%age 3.34% 4.12% 9.32%	33 171 832	
Champlin Corcoran Dayton Maple Grove	Market Value  586,080,150  945,017,350  859,590,989  7,002,119,108	%age 4.13% 6.66% 6.06% 49.35%	9,801.07 15,803.61 14,375.02 117,097.09	%age 3.34% 4.12% 9.32% 0.90%	Dollars  33  171  832  -2,432	
Champlin  Corcoran  Dayton  Maple Grove  Medina	Market Value  586,080,150  945,017,350  859,590,989  7,002,119,108  1,117,455,738	%age 4.13% 6.66% 6.06% 49.35% 7.87%	9,801.07 15,803.61 14,375.02 117,097.09 18,687.32	%age 3.34% 4.12% 9.32% 0.90% 1.38%	Dollars  33  171  832  -2,432  -298	