



**Elm Creek Watershed  
Management Commission**

**2023 Annual Activity Report**

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

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We gratefully acknowledge the assistance of:  
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*About the cover photograph: Edward Lake in Maple Grove  
Photo courtesy of Sharon Martin-Kotula*

# Elm Creek Watershed Management Commission

## 2023 Annual Activity Report

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*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 2023.*

## ≡ 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.

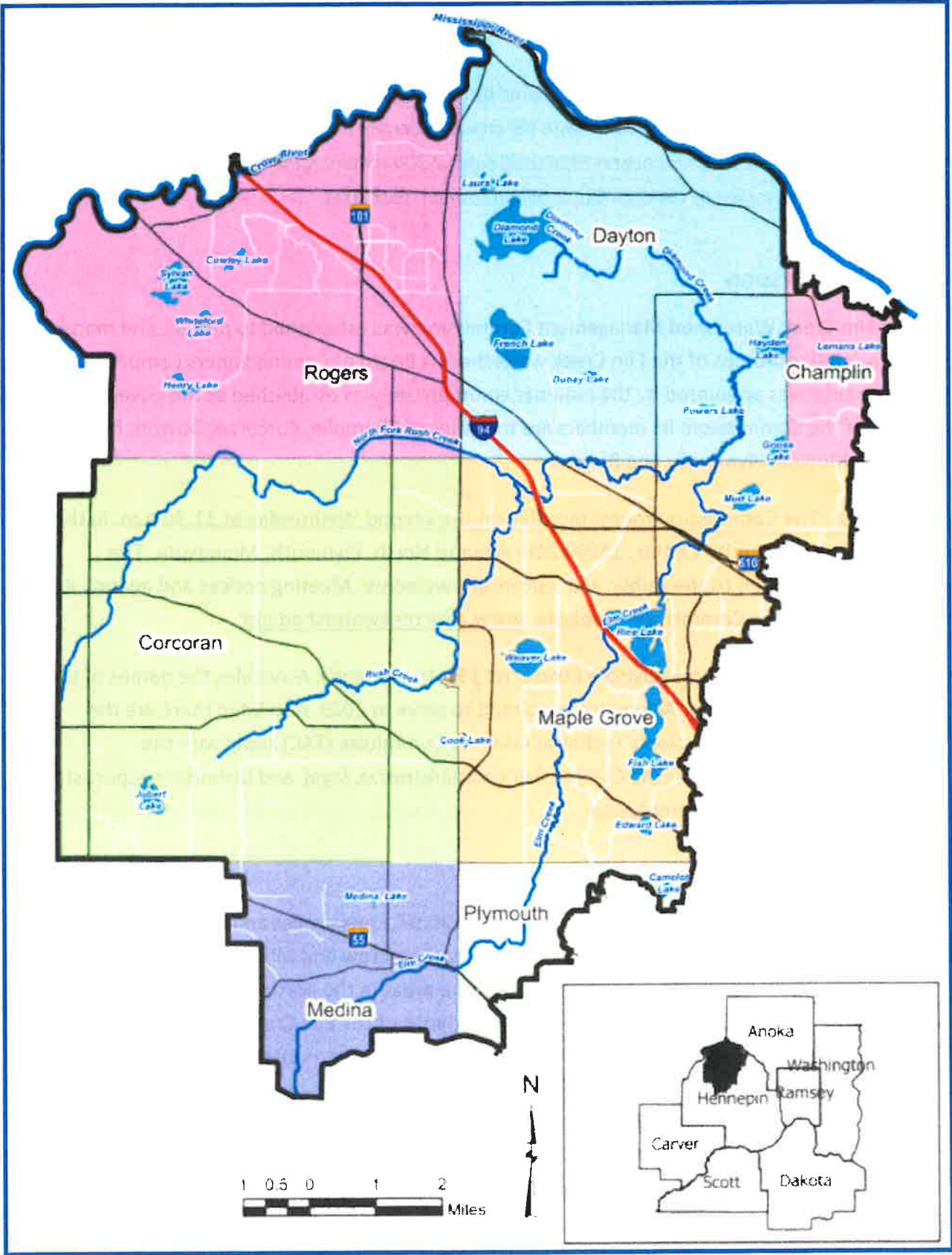
**MEETINGS** The Commission meets monthly on the second Wednesday at 11:30 a.m. in the Plymouth Community Center, 14800 34th Avenue North, Plymouth, Minnesota. The meetings are open to the public and visitors are welcome. Meeting notices and agenda items are posted on the Commission's website. [www.elmcreekwatershed.org](http://www.elmcreekwatershed.org).

**COMMISSIONERS | TECHNICAL ADVISORY COMMITTEE | STAFF** *Appendix A* includes the names of the Commissioners and their Alternates appointed to serve in 2023. 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 130.97 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 on page 3 shows the area share of the member communities in the watershed. A map of the watershed may be viewed on the following page. The map has been updated to reflect changes made to the Elm Creek/Shingle Creek and the Elm Creek/West Mississippi watershed boundaries in 2023. A map showing the actual boundary changes is included as *Appendix 2*. The Bassett Creek and Mississippi watershed management organizations have also





**Table 1 - Area of Members within the Elm Creek Watershed**

Local Government Unit	Square Miles	%age of Watershed
Champlin	3.08	2.36%
Corcoran	36.06	27.61%
Davton	25.17	19.27%
Maple Grove	26.32	20.15%
Medina	9.34	7.15%
Plymouth	4.44	3.40%
Rogers	26.20	20.06%
<b>Total</b>	<b>130.61</b>	<b>100.0%</b>

accepted the proposed boundary changes with Elm Creek. Additional changes will be made to the Pioneer-Sarah Creek/Elm Creek and Minnehaha Creek/Elm Creek boundaries during development of the Elm Creek Commission’s Fourth Generation Watershed Management Plan.

**≡ THE WATERSHED PLAN**

The Elm Creek Watershed Management Commission adopted its Third Generation Watershed Management Plan on October 14, 2015. The 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. The 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; and 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 best management practices (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 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 rates of runoff at pre-development levels** for critical duration precipitation events.
- **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 rivers 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 watershed 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, non-degradation, and ecosystem management goals.

## 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. The Commission's Rules and Standards may be viewed at <http://www.elmcreekwatershed.org/third-generation-plan.html>.

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 of 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) 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 PLANS**

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

**≡ 2023 WORK PLAN IN REVIEW**

Minnesota Rule 8410.0150 requires the Commission to submit to the Board of Water and Soil Resources (BWSR) a financial report, activity report and audit report for the preceding fiscal year. (The calendar year is the Commission's fiscal year.) 8410.0150 Subp. 3 outlines the required content of the annual activity report. It includes an assessment of the previous year's annual work plan and development of a projected work plan for the following year. The activities are based on the issues, priorities, and goals for the ten-year period 2015-2024 identified in the Commission's Third Generation Watershed Management Plan.

The Elm Creek Commission identified a number of activities to be undertaken in 2023. The activities are categorized as Technical, Monitoring, Education and Public Outreach, Projects

and Capital Improvements, and Administrative, and are described below. The progress the Commission made toward completing these activities in 2023 is shown in *italics*. The 2023 Work Plan in Review was approved on February 8, 2023.

#### TECHNICAL

- § Continue to review local development/redevelopment plans for conformance with the standards outlined in the Commission's Third Generation Watershed Management Plan. *The Commission reviewed 29 projects in 2023. Appendix 3 lists these projects; a map showing their locations is also included there.*
- § Evaluate the 2021 project review policy, application form, and fee schedule to determine how well they are meeting the Commission's goal of funding the costs of reviewing the projects. Revise the language for approval of O&M agreements. *In the summer of 2023, the Technical Advisory Committee (TAC) reviewed the revised policy and fee schedule to determine whether any revisions should be considered and/or the fee structure revised to cover Commission costs. No changes to the policy were deemed necessary; however, in July 2023, the TAC recommended, and the Commission approved, a revised fee schedule to better align the fees initially collected from the applicant with the costs actually incurred by the administrative and technical staffs. The revised fee schedule became effective August 1, 2023.*
- § Complete the update of the Special Flood Hazard Areas. *The Commission's and cities' work on this project is complete. The DNR is exploring options internally to complete the final reviews and mapping for HUC-8 updates across the Metro area.*

#### 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. *In 2023, TRPD monitored Elm Creek at 77th Avenue (ECF77); Rush Creek at Territorial Road (RT); and Diamond Creek (DC) for continuous flow and water quality. The Park District also monitored four sentinel lakes (Fish, Weaver, Diamond, and Rice) and two additional lakes (Cowley and Sylvan) as well as conducted an aquatic vegetation survey of Cowley Lake in 2023. Under the cooperative agreement, the Commission and the Park District also provide financial support to assist the USGS monitoring.*

*Under the five year-cooperative agreement, twelve monthly manual samples were collected to represent the variations in hydrologic conditions and physical and laboratory*

*analysis of chemicals were also taken. A refrigerated automatic sampler was used to collect eight composited samples of runoff events. They were discharge-weighted and collected during increasing or peak streamflow and analyzed for the same components as the manual samples. Analysis was completed for Total Phosphorus, Dissolved Phosphorus, Total Ammonia plus Organic Nitrogen, Dissolved Ammonia Nitrogen, Dissolved Nitrite plus Nitrate Nitrogen, Total Suspended Solids, Volatile Suspended Solids, Chemical Oxygen Demand, and Dissolved Chloride. Physical measurements included Water Temperature, Specific Conductance, and pH. TRPD monitoring results are found in Appendix 4.*

- § Continue to operate the monitoring station in Champlin in cooperation with the United States Geological Survey (USGS). *The cooperative agreement was renewed for WY2022-23. The Commission's portion of the agreement is \$44,900; the USGS' share is \$39,800. A description of the USGS monitoring program, including 2023 results, are shown in Appendix 5. Real time data from the monitoring station may be viewed at [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).*
- § Fund the monitoring of one lake through Metropolitan Council's Citizen Assisted Monitoring Program (CAMP). *No lakes were monitored by Commission volunteers during the 2023 CAMP program. When available, CAMP monitoring results may be viewed on the Met Council's website -- <https://metro council.org/Wastewater-Water/Services/WaterQuality-Management/Lake-Monitoring-Analysis/Citizen-Assisted-Monitoring-Program.aspx>.*
- § Undertake the 10-year Watershed-wide TMDL Review. *In April, the Commission approved proceeding with the 10-year review. The Scope of Work was approved at the November meeting. Details of the review are included in Appendix 6.*

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

- § Continue as a member of the West Metro Water Alliance (WMWA). *The contract Educator continued to schedule classroom visits in 2023. The four member WMOs: Bassett Creek, Elm Creek, Shingle Creek, and West Mississippi, along with the Richfield-Bloomington WMO, partnered with Hennepin County to provide a one-half time education and outreach coordinator to provide engagement and programming in the five watersheds. The coordinator position was funded by Watershed-Based Implementation Funding (WBIF) and the WMWA special projects budget. This two-year limited duration position will focus on engaging with various stakeholder groups in the five watersheds on clean water and chloride management issues. DEIA (Diversity, Equity, Inclusion and Accessibility) will be integrated into all future work.*



- § Developed and implemented a Chloride Education and Outreach Plan. *The Commissioners and TAC (Technical Advisory Committee) members of the five participating WMOs identified target stakeholders and messages and are currently developing options for delivering programming. This work is being coordinated with WMWA and the Hennepin County Chloride Initiative. The focus of the plan is on faith-based communities and is modeled on the Low Salt/No Salt campaign. A draft media kit has been created along with a consultation outline and letters of recruitment. The goal is to complete ten consultations/participant training events over the 2023-2024 winter.*
- § Continue as a member of Blue Thumb and WaterShed Partners. *Administrative staff attended these meetings, offering expertise and otherwise participating to support shared goals, and providing updates to the Commission at their monthly meetings.*
- § Promote “Lawns to Legumes,” a program for residents to seed their lawns with a bee lawn mix, targeting habitat for endangered bee species. A collaboration between Blue Thumb and the Minnesota Board of Water and Soil Resources (BWSR), provides cost-share funding and other resources to help Minnesota residents establish pollinator habitat in their yards. *The Commission continues to support and promote this program on its website and with membership in Blue Thumb. Since its inception in August 2019, the program has (a) received more than 30,000 applications from Minnesotans for individual support reimbursement grants; (b) funded approximately 5,000 pollinator habitat projects in all 87 Minnesota counties; (c) awarded more than 40% of all grants to residents in environmental justice areas; (d) supported more than 700 do-it-yourself projects supported by program resources; (e) recruited 270 volunteer coaches in 49 counties across the state; (f) created nearly 12 million square feet of high diversity residential pollinator habitat; (g) trained and educated more than 8,000 people via program workshops, webinars and presentations; (h) funded 32 Pollinator Pathways projects in communities throughout Minnesota; (i) fostered collaboration with more than 60 partner organizations; (j) supported more than 50 businesses that help residents create pollinator habitat; (k) created habitat in more than 70 community spaces; (l) sequestered more than 160 metric tons of carbon per year; and (m) collected more than 3 million cubic feet of water in gardens per year.*
- § Sponsor Resilient Yard Workshops as part of the Commission’s Education and Public Outreach Program. The workshops are presented by Metro Blooms. *Their Resilient Yards Online Learning Series is free to all Minnesota residents and contains four courses:*

*Resilient Yards, Turf Alternatives, Seed Saving, and Resilient Shorelines.*

- § Work with the Hennepin County Department of Environment and Energy (HCEE). Assist landowners in identifying BMPs for implementation throughout the watershed. Work with member cities to identify projects that will result in TMDL load reductions. *HCEE Staff provided monthly staff reports at the Commission's regular meetings. Included in those reports were project and program updates as well as announcements of grant programs and clinics offered by the County. A summary of the projects undertaken in 2023 is included in Appendix 7.*

*HCEE Staff also collaborated with landowners to identify BMP projects as well as larger, more strategic projects for inclusion on the Commission's Capital Improvement Program (CIP). The Rush Creek and Diamond Creek subwatershed assessments received funding for additional implementation in 2023-2024 through a Board of Water and Soil Resources (BWSR)-sponsored Watershed-Based Implementation Funding (WBIF) grant. The Commission dedicated \$175,000 in WBIF funds to these implementation efforts.*

- § Promote river stewardship through Hennepin County's RiverWatch program. RiverWatch is a hands-on environmental education program for youth in Hennepin County. Teams of youth assess the health of local streams by identifying and quantifying the stream's biological community. Youth collect macroinvertebrates (small aquatic organisms) from the stream and identify them in a lab setting. Conclusions about the stream's water quality can be drawn based on the number and variety of organisms in the stream. *Volunteer monitoring occurred at three sites in Elm Creek in 2023. Kaleidoscope Charter School students monitored Rush Creek at 101st Lane between Troy Lane and 105th Avenue; Osseo High School monitored a site on Elm Creek near Maple Grove High School; and five classes of students from Wayzata High School monitored Elm Creek behind their school twice during the school year.*

- § Continued to maintain the Commission's website [www.elmcreekwatershed.org](http://www.elmcreekwatershed.org) to provide news to residents, students, developers and other individuals interested in the water resources of the watershed. *This is an ongoing activity. Since Google went to a new platform for analytics in April 2023, it is counting all users since that time as new users. There were 666 new users during January-April on the old platform out of 711 total users. It is counting all 1,786 users April-December as new users as well. Staff estimate the number of new users at 2,351.*

- § Sent call out to 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. *A public meeting was held on June 14, 2023, to adopt an amendment to the Third Generation Watershed Management Plan to add one project, Rush Creek Stabilization Rush Hollow, to the 2024 CIP. The estimated cost of this project is \$1,000,000, with the Commission’s share being \$250,000. This project proposes to restore approximately 4,000 LF of Rush Creek between Orchid and Fernbrook Lanes, just upstream of the Elm Creek Park Reserve. Resolution 2023-02 Adopting the Minor Amendment was also approved at that meeting. (The estimated cost of this project was later increased to \$1,600,000.)*
- § Publish an annual activity report summarizing the Commission’s yearly activities and financial reporting. *The 2023 Annual Activity Report will be published in April 2024 and made available to the member cities and the public on the Commission website, <http://www.elmcreekwatershed.org/annual-reports.html>.*
- § Work with the Hennepin County Department of Environment and Energy (HCEE). Assist landowners in identifying BMPs for implementation throughout the watershed. Work with member cities to identify projects that will result in TMDL load reductions. *HCEE Staff provided monthly staff reports at the Commission’s regular meetings. Included in those reports were project and program updates as well as announcements of grant programs and clinics offered by the County.*

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

- § *A public hearing was held on September 13, 2023, where the Commission certified a levy totaling \$814,200 for three projects to move forward in 2023 – the South Fork Rush Creek Stream restoration project in Maple Grove (\$430,830); the CSAH12/Dayton River Road Stabilization in Dayton (\$116,655); the Downtown Pond Expansion and Reuse in Rogers (\$107,640); the 2023 City Cost Share project (\$106,050); and the 2023 Partnership Cost Share project (\$53,025). Resolution 2023-03 was adopted ordering the five projects, designating the member city responsible for construction, making findings and certifying costs to Hennepin County pursuant to MN Statutes, Section 103B.251.*
- § The Board of Water and Soil Resources (BWSR) allocated \$267,774 in FY23 Watershed Based Implementation Funds (WBIF) for use within the Elm Creek watershed. *The*

*Convene Committee allocated \$175,000 to continued implementation of projects in the Rush Creek Headwaters SWA as well as projects in the newly completed Diamond Lake SWA. \$30,000 was allocated to the education and outreach coordinator, and the balance of \$92,274 was allocated to high-priority area assessments. The proposed South Fork Rush Creek SWA, feasibility assessments for the Diamond Lake outlet channel project, and the Rush Creek meandering near Stieg Woods were also identified as potential projects. Projects must be completed by December 31, 2025.*

#### **ADMINISTRATION**

- § *Adopt a 2024 operating budget. At its June 14, 2023, regular meeting, the Elm Creek Watershed Management Commission approved a 2024 operating budget totaling \$494,067. To fund the 2024 budget the Commission approved member assessments of \$250,000, a zero increase in city assessments over 2023. The budget is discussed on the following page and details of the budget are shown in Appendix 8.*
- § *Adopt an Adequate Fund Reserve Policy. A subcommittee worked with the Commission's auditor to draft this policy, and to modify the financial reporting formats to simplify the Commissioners' ability to understand the Commission's financial position throughout the year. The Commission adopted a Reserve and Fund Balance Policy on May 10, 2023.*
- § *Prepare a 2022 Audit Report. The 2022 Audit Report was prepared by Johnson and Company, Ltd. and transmitted to the State Auditor and to the Board of Water and Soil Resources on June 28, 2023, per MN Rule 8410.*
- § *Conduct the biennial solicitation of interest proposals for administrative, legal, technical and wetland consultants, pursuant to Minnesota Statutes Annotated 103B.227§5. The solicitation was published in the November 28, 2022, edition of the State Register. Six proposals were received – four from engineering firms, and one each from legal and administrative service providers. At the Commission's January 11, 2023, meeting the members voted to accept the proposals from Campbell Knutson Professional Association for legal services, Judie Anderson's Secretarial Services, Inc. for administrative services, and Stantec Consulting Services, Inc. for technical services.*
- § *Publish an annual activity report summarizing the Commission's yearly activities and financial reporting. The 2022 Annual Activity Report was transmitted to the Board of Water and Soil Resources on April 26, 2023, and uploaded to the Commission's website on that date.*



## ≡ FINANCIAL REPORTING

*Appendix 8* shows the Elm Creek Watershed Management Commission's approved operating budget and member assessments for the years 2022-2024. 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.

Of the \$499,350 operating budget for 2024 approved by the Commission on June 14, 2023, revenue of \$232,850 was projected as proceeds from application fees, \$6,500 from partnership revenue, and \$10,000 from interest income and dividends, resulting in assessments to members totaling \$250,000. \$5,283 was projected as returning to reserves.

In 2023, the Commission designated \$814,200 as its share of the cost of five CIP projects. A Hennepin County ad valorem levy payable in 2024 was used to fund the Commission's share of the projects.

\$205,250 was projected as project review-related expense; \$41,017 for water monitoring; and \$13,500 for education. \$137,300 was budgeted for administration, planning, and general operating expenses. \$990,445 resides in restricted or assigned funds for special projects, studies and subwatershed assessments.

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.

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 2022 Audit are as follows:

General engineering	\$330,355
General administration	155,339
Education	8,262
Programs	33,325
Projects	98,936
Capital projects	<u>249,073</u>
Total	\$875,290

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 2024 WORK PLAN**

What follows below is the projected work plan for the year 2024. It was approved at the Commission’s February 14, 2024, meeting. Routine tasks are shown in **roman**; unique tasks in *italics*.

- § Continue to review local development/redevelopment plans for conformance with the standards outlined in the Commission’s Third Generation Watershed Management Plan. Continue to evaluate the project review policy, application form, and fee schedule developed in 2021 and revised in 2023 to determine how well they are meeting the Commission’s goal of funding the costs of reviewing the projects.
- § Continue to partner with the Three Rivers Park District (TRPD) to share in the costs of conducting lake and stream monitoring in the watershed.
- § Fund the monitoring of one lake through Metropolitan Council’s Citizen Assisted Monitoring Program (CAMP).
- § Continue to operate the monitoring station in Champlin in cooperation with the United States Geological Survey (USGS).

- § Promote river stewardship through Hennepin County’s RiverWatch program with three sites in 2024.
- § Continue as a member of the West Metro Water Alliance (WMWA).
- § 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
- § *Sponsor shoreline restoration/resilient yards workshops presented by Metro Blooms, as part of the Commission’s Education and Public Outreach Program.*
- § Continue as a member of Blue Thumb and WaterShed Partners.
- § Implement a Chloride Education and Outreach Plan in coordination with WMWA and Hennepin County.
- § 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.
- § Request member cities 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 be considered for inclusion on the CIP.
- § Adopt a 2025 operating budget.
- § Prepare a 2023 Audit Report.
- § Continue to populate and maintain the Commission’s website to provide news to residents, students, developers, and other individuals interested in the water resources of the watershed.
- § Publish an annual activity report summarizing the Commission’s yearly activities and financial reporting.
- § *Initiate development of the Fourth Generation Watershed Management Plan. The current Plan expires in Fall 2025. Typically, it takes about 18 months to go through the planning and review process.*
- § *Complete the Watershed-wide TMDL Ten Year Review previously authorized by the Commission.*

§ *Undertake BWSR Watershed-Based Implementation Funding (WBIF) for FY2024/25. The Commission is eligible to receive \$373,590 after July 1, 2024, and prior to December 31, 2027.*

Have a question about this report? Need more information?  
Want to know how to get involved?  
<http://www.elmcreekwatershed.org/contact-us.html>



# APPENDICES





## Commissioners

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

REPRESENTING	NAME/POSITION	ADDRESS	TELEPHONE/EMAIL
<b>Champlin</b>	Bill Walraven Secretary	216 Lowell Road Champlin, MN 55316	763.421.3206 traderstec@aol.com
	Gerry Butcher Alternate	309 Dayton Road Champlin, MN 55316	763.557.1451 jg_butcher@yahoo.com
<b>Corcoran</b>	Ken Guenther Treasurer	6315 Butterworth Lane Corcoran, MN 55430	612.710.0734 kenguentner@gmail.com
	Tom Anderson Alternate	22385 Rush Creek Drive Rogers, MN 55374	651.216.8125 tompand@yahoo.com
<b>Dayton</b>	Doug Baines Chair	13000 Overlook Road Dayton, MN 55327	763.323.9506 dougbaimes@aol.com
	Travis Henderson Alternate	12260 S Diamond Lake Road Dayton, MN 55327	612-743-4506 thenderson@ cityofdaytonmn.com
<b>Maple Grove</b>	Joe Trainor Commissioner	16075 Territorial Road Maple Grove, MN 55369	763.420.4645 joe.trainor@meritain.com
	Dan Riggs Alternate	12822 86th Place North Maple Grove, MN 55369	612.916.4406 driggs@carlsonmccain.com
<b>Medina</b>	Terry Sharp Commissioner	4274 Fairway Drive Medina, MN 55340	612.849.6230 tsharp2972@aol.com
	Steven Lee Alternate	1522 Medina Road Long Lake, MN 55356	952.412.7573 leesteven2001@yahoo.com
<b>Plymouth</b>	Catherine Cesnik Vice Chair		cesnik@gmail.com
	Clark Gregor Alternate	2940 Xanthus Lane Plymouth, MN 55447	763.509.5005 cgregor@plymouthmn.gov
<b>Rogers</b>	David Katzner Commissioner	14440 Edgewood Road Rogers, MN 55374	320.309.7804 dkatzner@carlsonmccain.com
	Kevin Jullie Alternate	13315 Oakwood Drive Rogers, MN 55374	763.428.9160 kjullie@srfconsulting.com

## Technical Advisory Committee

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

REPRESENTING	NAME	ADDRESS	TELEPHONE/EMAIL
Champlin	Heather Nelson	City of Champlin 11955 Champlin Drive Champlin, MN 55316	763.923.7120 hnelson@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	Jason Quisberg	Stantec One Carlson Parkway Suite 100 Plymouth, MN 55447	763 252-6873 jason.quisberg@stantec.com
Maple Grove	Derek Asche	City of Maple Grove 12800 Arbor Lakes Parkway Maple Grove, MN 55313	763.494.6354 dasche@maplegrovemn.gov
Medina	Rebecca Haug	WSB 701 Xenia Ave S # 300, Golden Valley, MN 55416	763.438.7475 rhaug@wsbeng.com
Plymouth	Ben Scharenbroich	City of Plymouth 3400 Plymouth Boulevard Plymouth, MN 55447	763.509.5527 bscharenbroich@plymouthmn.gov
	Amy Riegel	Plymouth, MN 55447	763.509.5531 ariegel@plymouthmn.gov
Rogers	Andrew Simmons	City of Rogers 22350 S Diamond Lake Road Rogers, MN 55374	763.428.0907 asimmons@ci.rogers.mn.us
Stantec Consulting Services	Erik Megow	One Carlson Parkway Suite 100	763.252.6857 erik.megow@stantec.com
	Diane Spector	Plymouth, MN 55447	763.252.6880 diane.spector@stantec.com
	Katie Kemmitt		763.252.6879 katie.kemmitt@stantec.com
Surface Water Solutions, LLC	James Kujawa	6533 Nedderson Circle Brooklyn Park, MN 55445-3206	952.456.3206 surfacewatersolutions@outlook.com
Resilience Resources, LLC	Rebecca Carlson	3235 Fernbrook Lane Plymouth, MN 55447	612.408.7515 rebecca@resilience-resources.com
Hennepin County Dept. of Environment and Energy	Kris Guentzel	701 Fourth Avenue S. Suite 700	612.596.1171 kristopher.guentzel@hennepin.us
	Kevin Ellis	Minneapolis, MN 55415-1600	612.543.3373 kevin.ellis@hennepin.us
Three Rivers Park District	Brian Vlach	12615 County Road 9 Plymouth, MN 55441	763.694.7846 brian.vlach@threeriversparks.org

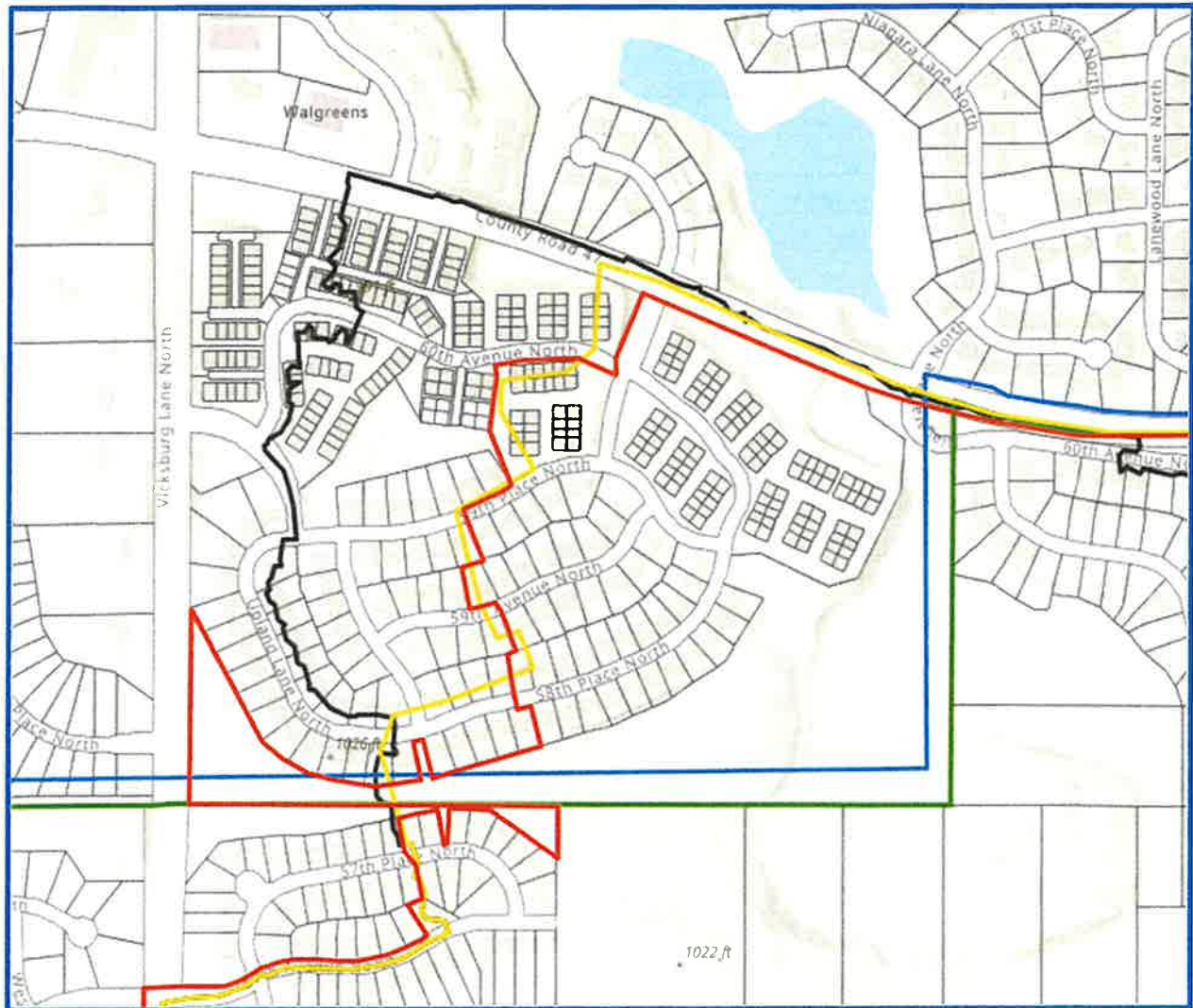
### Staff and Consultants

The required biennial solicitation for interest proposals for administrative, legal, and technical consulting services was published in the November 28, 2022, edition of the *State Register*. The next solicitation will occur in November 2024. The Commission has no employees.

NAME/POSITION	ADDRESS	TELEPHONE/EMAIL
<b>Technical Services</b>		
Stantec Consulting Services	Erik Megow	One Carlson Parkway Suite 100 763.252.6857 erik.megow@stantec.com
	Diane Spector	Minneapolis, MN 55447 763.252.6880 diane.spector@stantec.com
	Katie Kemmitt	763.252.6879 katie.kemmit@stantec.com
Surface Water Solutions, LLC	James Kujawa	6533 Nedderson Circle Brooklyn Park, MN 55445-3206 952.456.3206 surfacewatersolutions@outlook.com
Resilience Resources LLC	Rebecca Carlson	3235 Fernbrook Lane Plymouth, MN 55447 612.408.7515 rebecca@resilience-resources.com
Hennepin County Dept. of Environment and Energy	Kris Guentzel	701 Fourth Avenue S. Suite 700 Minneapolis, MN 55415-1600 612.596.1171 kristopher.guentzel@hennepin.us
	Kevin Ellis	612.543.3373 kevin.ellis@hennepin.us
<b>Legal Services</b>		
	Joel Jamnik	Campbell Knutson Grand Oak Office Center I 651.234.6219 jjamnik@ck-law.com
	James Monge, III	860 Blue Gentian Road #290 Eagan, MN 55121 651-234-6201 jmonge@ck-law.com
<b>Administrative Services</b>		
	Judie Anderson	JASS 3235 Fernbrook Lane 763.553.1144 judie@jass.biz
	Amy Juntunen	Plymouth, MN 55447 amy@jass.biz
	Beverly Love	beverly@jass.biz



### Watershed Boundaries Revised



The former boundaries are blue (Shingle) and green (Elm). Development subsequently subdivided the old large agricultural parcel and changed drainage patterns. The yellow line is Shingle’s new hydro boundary and the red line the new legal boundary. The black line is the Elm hydro boundary established in the HUC-8 study. The City of Plymouth will work with the two watershed engineers to decide which hydro boundary more accurately reflects current conditions.

### Projects Reviewed in 2023

Project Number	Project Name	City	Reviewed for Rules*					
			D	E	F	G	H	I
2023-01	Chankahda Trail Reconstruction Phase 2	Plymouth	•	•	•		•	
2023-02	Lynde Greenhouse Fire Damage Repair	Maple Grove	•	•				
2023-03	Cemstone Supply Facility	Dayton	•	•				
2023-04	Medina Industrial	Medina	•	•		•		•
2023-05	MTL Troy Lane Addition	Dayton	•	•		•		•
2023-06	Sota Shine of Maple Grove	Maple Grove		•				
2023-07	Lakeview Knolls Site Pickleball Court	Maple Grove	•	•				
2023-08	Rush Creek Blvd Interchange	Maple Grove	•	•		•		•
2023-09	Magnifi Financials	Maple Grove	•	•				
2023-10	New Fire Station	Rogers	•	•				
2023-11	Sundance Greens 9 <sup>th</sup> Addition	Dayton		•				
2023-12	Hope Community Mixed Use EAW	Corcoran	•	•		•		
2023-13	River Valley Church	Maple Grove	•	•		•		
2023-14	Bottema Wetlands Restoration	Corcoran		•				
2023-15	South Fork Rush Creek Restoration at Evanswood	Maple Grove		•	•		•	
2023-16	Rogers South Community Park Site Improvements	Rogers	•	•		•		•
2023-17	Veit Pit – Sand and Gravel Mine	Rogers	•	•				
2023-18	Brayburn Trails II	Dayton	•	•				
2023-19	23240 Co Rd 30	Corcoran	•	•				
2023-20	Dunkirk Square	Maple Grove	•	•				
2023-21	Parks Place Memory Care Phase II	Plymouth	•	•				
2023-22	Shores of Sylvan Lake	Rogers	•	•				•
2023-23	NORSQ Maple Grove	Maple Grove	•	•		•		•
2023-24	Elm Creek Rest Area Sidewalk Reconstruction	Maple Grove	•	•				
2023-25	Rogers Mixed-Use Improvements	Rogers	•	•				
2023-26	2024 Rogers Elementary School Site Improvements	Rogers	•	•				
2023-27	500 Hamel Apartments	Medina	•	•				•
2023-28	Rush Creek Hollow	Maple Grove	•	•				•
2023-29	Dayton Field 4 <sup>th</sup> Addition	Dayton	•	•		•		•

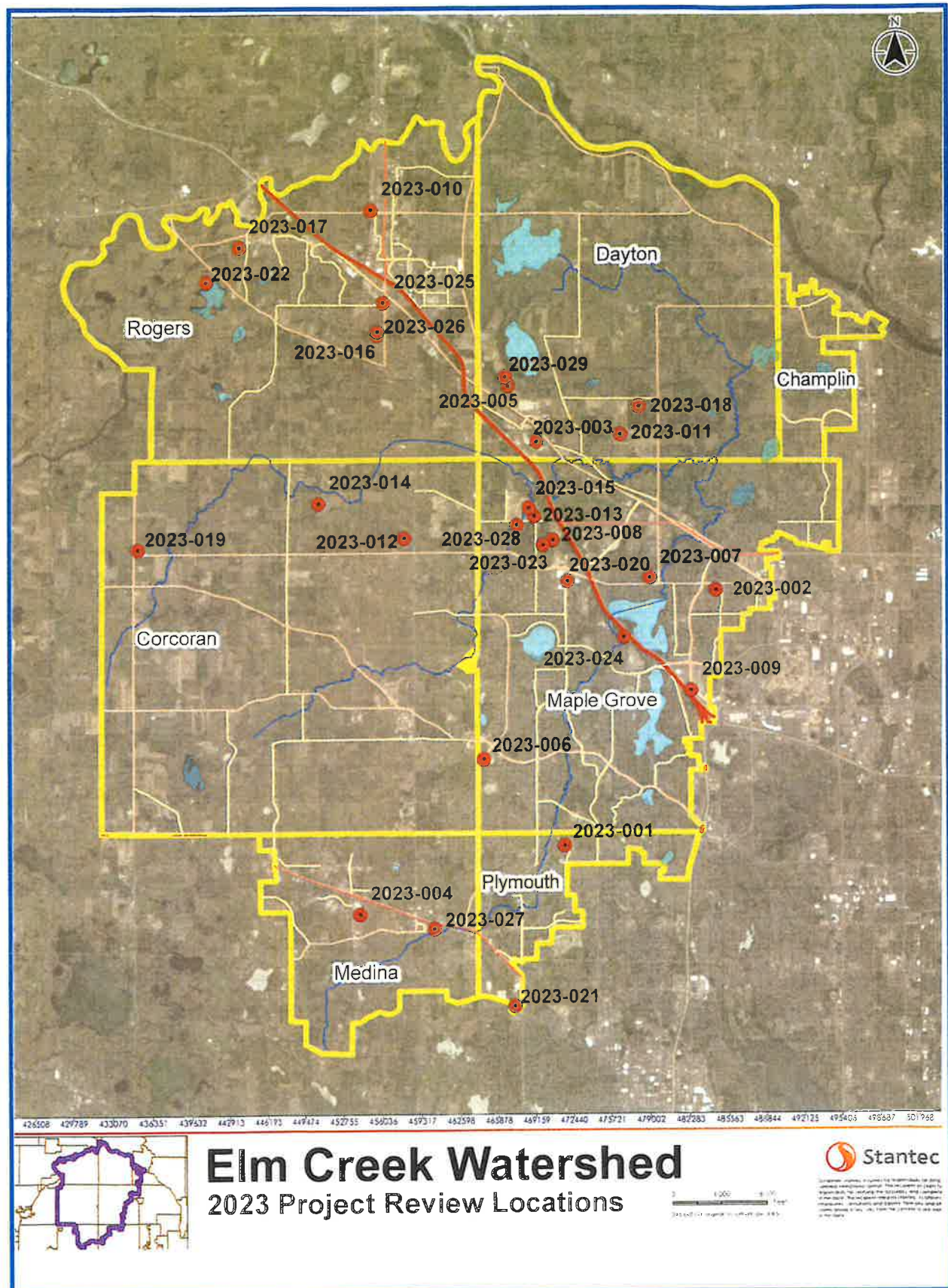
\*Rule D – Stormwater  
Rule E – Erosion Control

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
2023-01	35.8/22.5	64.2/50.9	137.8/112.8	-7.74	-1,884	4.15		32,670	
2023-02	2.5/2.4	4.5/3.6	8.7/8.7	-0.85	-236.5	-0.22		890	
2023-03	8.9/3.4	16.6/10.8	34.6/23.7	-0.98	-436	1.73		9,932	
2023-04	57.7/10.5	97.7/29.4	183.9/68.7	-0.3	-1,574	21.3		118,918	
2023-05	42.7/23.1	113.3/67.6	272.7/150.5	-0.6	-1,581	37.0		105,067	
2023-06									Rule E Only
2023-07	9.1/8.4	16.1/15.3	31.9/29.0	-0.8	-320.3	1.4		4,638	
2023-08	132.0/114.9	225.5/180.8	369.1/325.6	-3.0	-3,179	32.7		373,776	
2023-09	8.5/3.0	13.4/6.5	24.5/16.8				4,770		Regional facilities provide WQ
2023-10	5.7/2.6	10.9/4.9	20.3/19.4				6,253		TP/TSS met by abstraction
2023-11									Rule E Only
2023-12									EAW
2023-13	30.2/23.6	52.1/32.4	99.6/51.3	-1.2	-185.2	4.0		13,827	
2023-14									Rule E Only
2023-15									Rules E, F, H Only
2023-16	32.4/20.6	58.2/37.6	112.5/73.5	-0.6 to -7.2	-104	-0.7	61,419		irrigation
2023-17	3.1/0.2	11.5/6.5	35.7/35.7				7,200		TP/TSS met by abstraction
2023-18	43.0/25.3	82.0/54.2	251.6/110.5	-11.7	-3,981			69,504	
2023-19	4.7/3.9	8.0/6.7	36.9/36.5	-0.1	-1	1.61		9,400	
2023-20	5.3/4.0	8.4/6.2	14.8/10.8				562		TP/TSS met by abstraction
2023-21	6.2/2.8	13.6/8.8	32.0/11.8				7,392		TP/TSS met by abstraction
2023-22	13.7/13.0	29.0/26.4	62.4/62.2	-1.1	-483	-0.6		7,228	
2023-23	62.8/55.4	117.2/112.9	236.4/190.5	-7.6	-678	21.9		60,947	
2023-24									Decrease in impervious
2023-25	9.2/1.7	13.9/3.3	24.3/7.8	-3.2	-1,418			6,201	
2023-26	11.4/9.2	18.9/17.7	34.8/33.5	-0.4	-119	0.2		3,451	
2023-27	18.4/15.6	41.0/37.7	79.2/73.4	-0.9	-189	-3.3		10,861	
2023-28	7.2/5.5	16.7/13.4	41.2/34.4	-0.2	-199	1.2		11,198	
2023-29	38.2/35.6	81.0/71.1	166/157	-0.03	-398			26,528	





## 2023 Elm Creek Stream Monitoring

### Elm Creek Stream Monitoring – 2023

Monitoring occurred from April 12, 2023, to November 1, 2023. During the monitoring period, there were 18.1 inches of rain. There was below average rainfall for most of the growing season, but significant rain returned in the fall. Three sites were monitored in 2023.

DC – Diamond Creek within Elm Creek Park Reserve

- Average flow: 6 cfs
- Minimum flow: 0.6 cfs
- Maximum flow: 38.5 cfs

RT – Rush Creek at Territorial Road

- Average flow: 34.4 cfs
- Minimum flow: 0 cfs
- Maximum flow: 337 cfs

EC77 – Elm Creek at Medicine Lake Regional Trail

- Average flow: 17.6 cfs
- Minimum flow: 0 cfs
- Maximum flow: 144 cfs

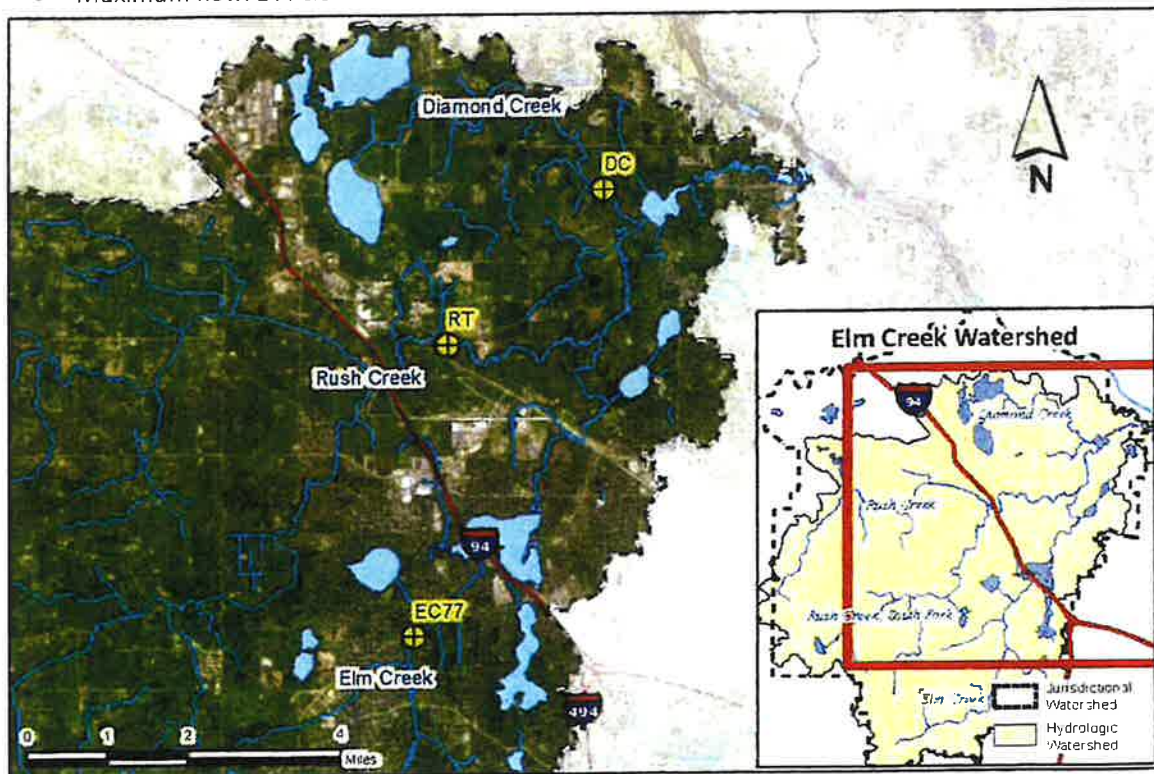


Figure 1. Monitoring site locations within Elm Creek Watershed.

## 2023 Elm Creek Stream Monitoring

### Methods

#### Monitoring

- Bi-weekly water grab samples were collected to characterize base flow conditions
- All sites were equipped with ISCO automated samplers and measured water flow using ISCO flow meters. Automated sampling occurred following storm events.
- Rating curve required for open stream sites to better estimate amount of water flow
- Parameters: TP: Total Phosphorus; SRP: Soluble reactive phosphorus; TN: Total Nitrogen; TSS: Total Suspended Sediments

#### To estimate annual loads:

- Used U.S. Army Corps of Engineer’s FLUX model version 5.0 (Soballe, 2020)
- Concentrations and flow during sample period were input to FLUX to determine the sample period nutrient load
- Sample period nutrient load was extrapolated to yearly load based on precipitation
- Concentrations are flow weighted

### Sample Concentration and Flux results

- DC: 11 Samples collected – one composite and ten grab samples
- EC77: 16 samples collected - all were grab samples
- RT: 11 samples - three composite samples and eight grab samples

Table 1. Sample concentration average, minimum, and maximum.

Site	Ave TP (min-max) (µg/L)	Ave SRP (min-max) (µg/L)	Ave TN (min-max) (mg/L)	Ave TSS (min - max) mg/l
DC	270 (98 - 569)	142 (8 - 325)	1.2 (0.5 - 1.9)	6.6 (1.2 - 18.8)
EC77	242 (117 - 354)	145 (53 - 243)	1.2 (0.0 - 4.3)	9.9 (0.9 - 42.5)
RT	450 (206 - 613)	376 (101 - 524)	1.4 (0.8 - 2.9)	4.0 (0.7 - 13.3)

Table 2. Annual load estimates with flow-weighted concentrations derived from Flux.

Site	Year	Nutrient Loading				Nutrient Concentration				Flow Volume (x 10 <sup>6</sup> m <sup>3</sup> )	Annual Precipitation (inches)
		TP (lbs/yr)	SRP (lbs/yr)	TN (lbs/yr)	TSS (lbs/yr)	TP (µg/L)	SRP (µg/L)	TN (mg/L)	TSS (mg/L)		
DC	2023	2168.2	1122.7	14,159	50,149	197.3	102.1	1.29	4.56	4.99	29.8
EC77	2023	6951.1	3408.1	37,537	230,280	250.3	122.7	1.35	8.29	12.60	32.39
RT	2023	30760.7	26484.3	146,796	222,530	490.9	422.6	2.34	3.55	28.42	29.8



### 2023 Elm Creek Stream Monitoring

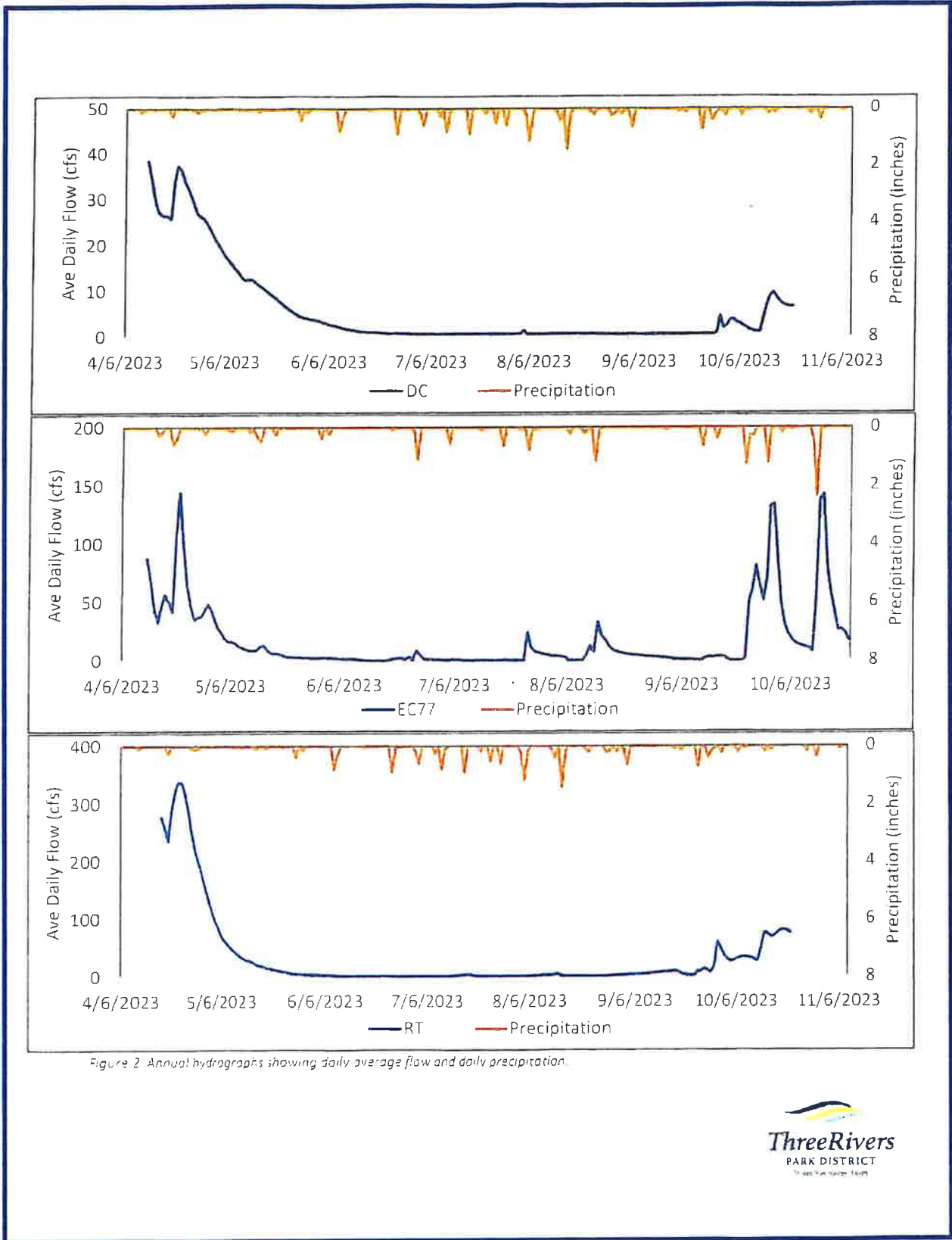


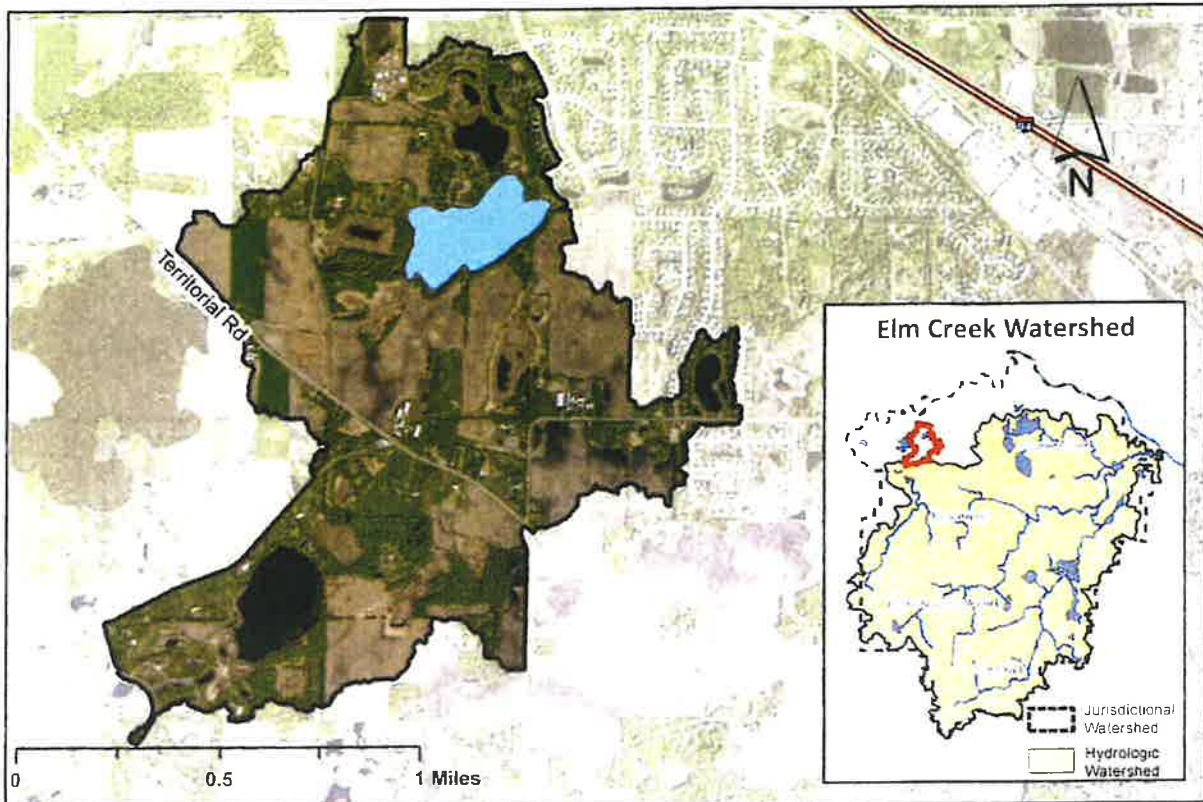
Figure 2 Annual hydrographs showing daily average flow and daily precipitation.





## Cowley Lake

### Cowley Watershed Map



### Cowley Bathymetry



#### Lake and Watershed Characteristics

DNR #	27016900
Watershed Area	853 Acres
Lake Area	34 Acres
Percent Littoral Area	100%
Average Depth	4.7 ft.
Maximum Depth	8 ft.
Watershed Area: Lake Area	25.1:1
Impairment Classification	Excess Nutrients 2017
Classification	Shallow Lake

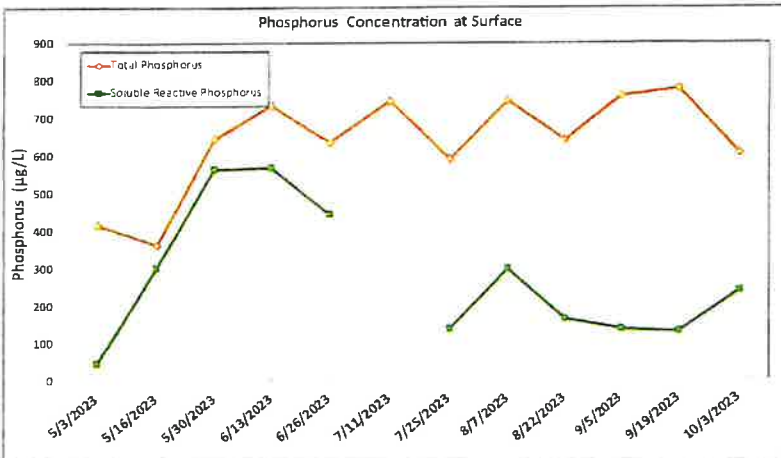
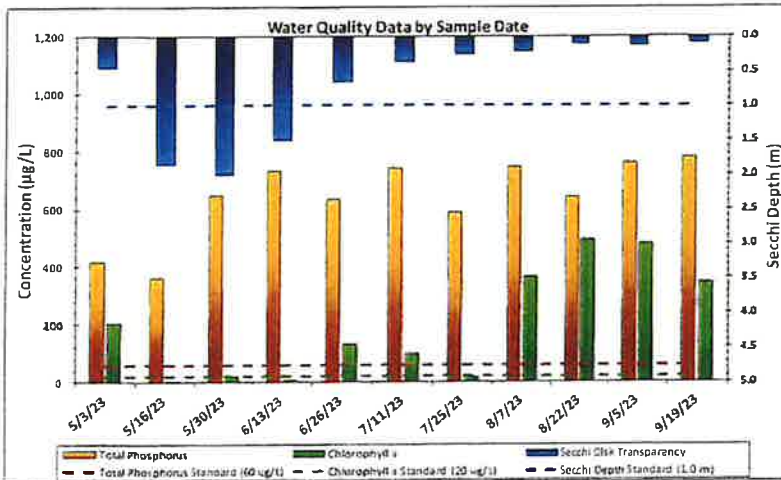
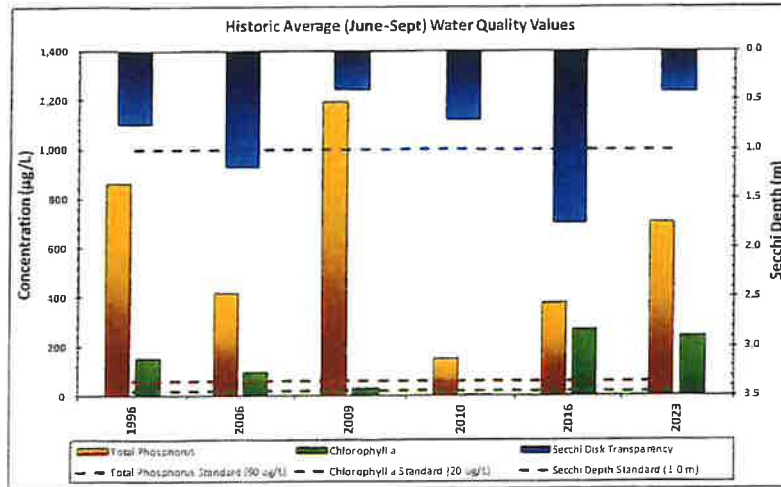
Water Resource Department  
 Map Created: 12/12/2023  
 Revised Date: 12/12/2023

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### Cowley Lake



Year	TP	Chl-a	Secchi	Avg Grade
1996*	F	F	D	F
2006*	F	F	D	F
2009*	F	C	F	D-
2010*	D	A	D	C
2016*	F	F	C	D-
2023	F	F	F	F
MPCA Standard	C	C	D	C-

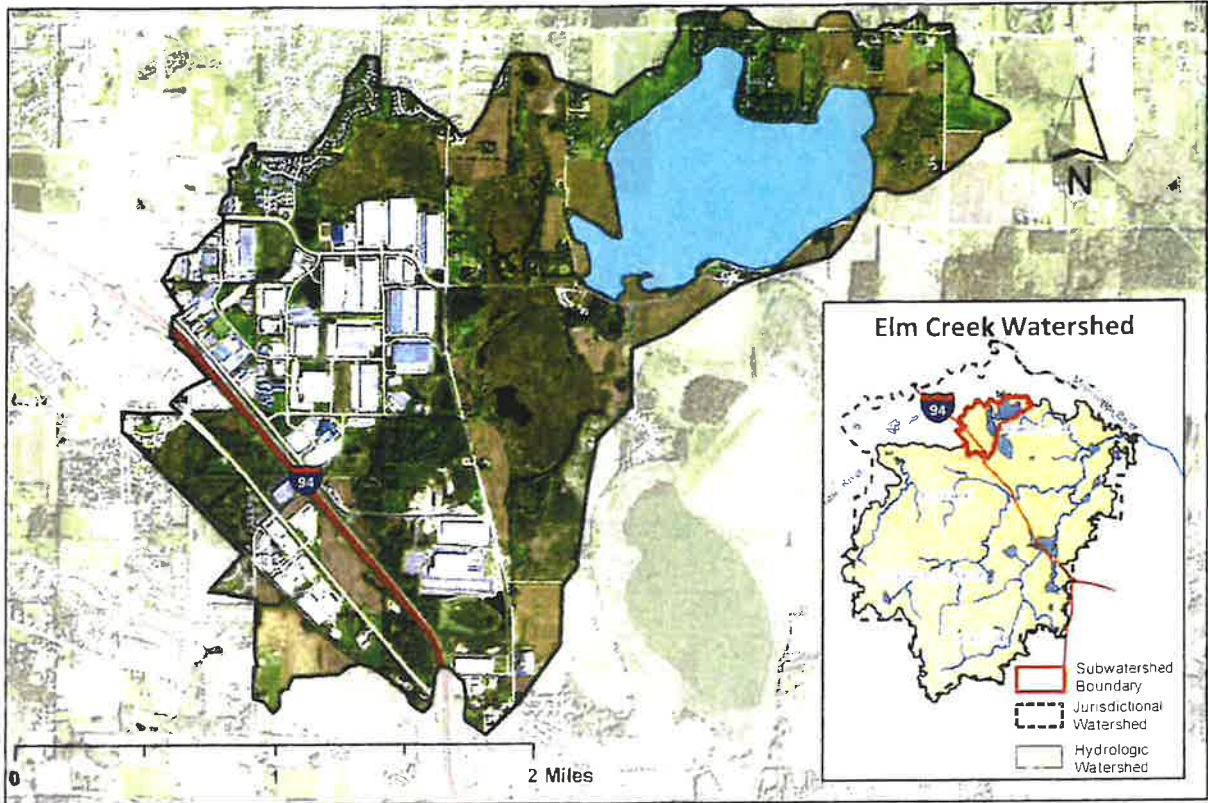
Met Council Grading System for Lake Water Quality

\*Data collected by volunteers for Met Council



## Diamond Lake

### Diamond Lake Watershed Map



### Diamond Lake Bathymetry



#### Lake and Watershed Characteristics

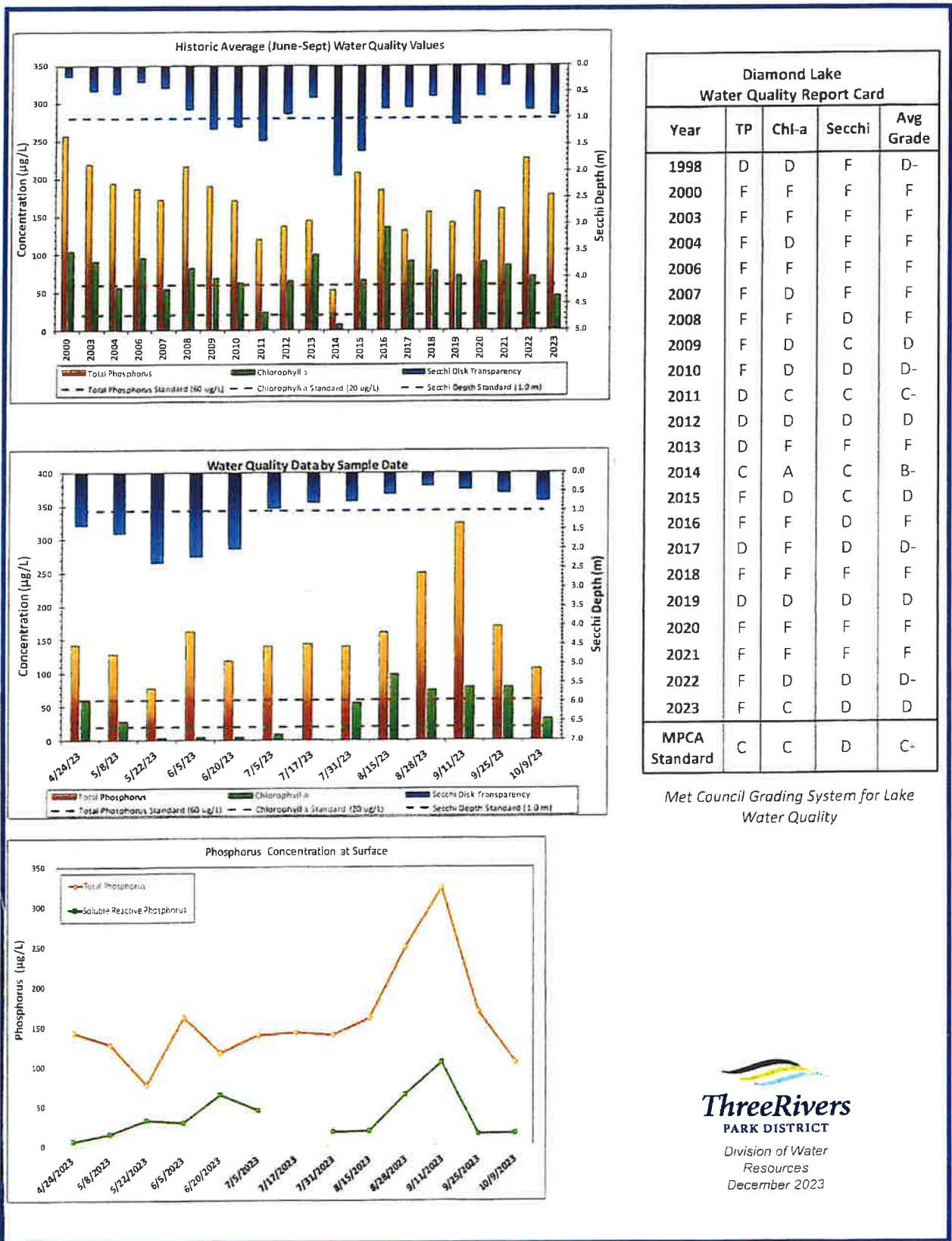
DNR #	27012500
Watershed Area	2,367 Acres
Lake Area	382 Acres
Percent Littoral Area	100%
Average Depth	3.97 ft.
Maximum Depth	7.37 ft.
Watershed:Lake Ratio	6.2:1
Impairment	Excess Nutrients in 2006
Classification	Shallow Lake

Water Resource Department  
 Map Created: 11/24/2017  
 Revised Date: 12/4/2017

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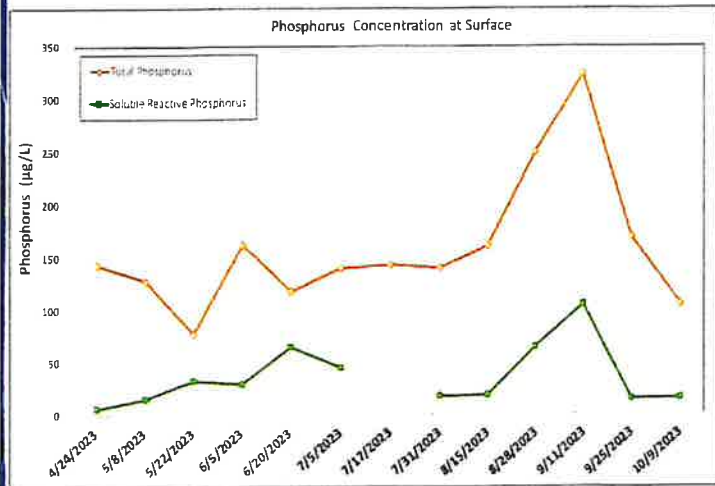
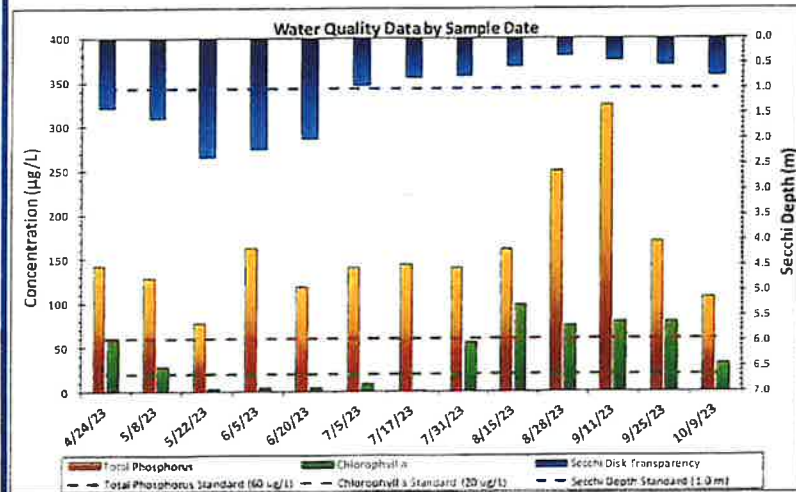


### Diamond Lake



Year	TP	CHI-a	Secchi	Avg Grade
1998	D	D	F	D-
2000	F	F	F	F
2003	F	F	F	F
2004	F	D	F	F
2006	F	F	F	F
2007	F	D	F	F
2008	F	F	D	F
2009	F	D	C	D
2010	F	D	D	D-
2011	D	C	C	C-
2012	D	D	D	D
2013	D	F	F	F
2014	C	A	C	B-
2015	F	D	C	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
2021	F	F	F	F
2022	F	D	D	D-
2023	F	C	D	D
MPCA Standard	C	C	D	C-

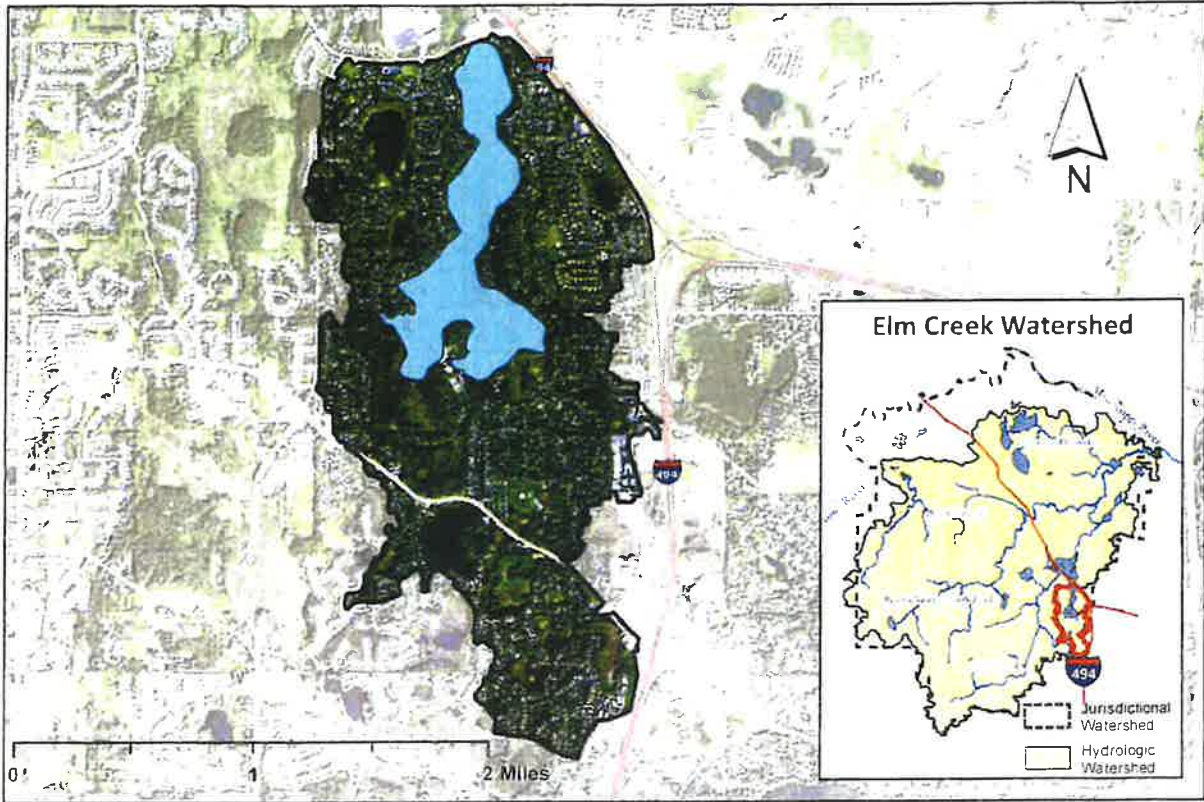
Met Council Grading System for Lake Water Quality





## Fish Lake

### Fish Lake Watershed Map



### Fish Lake Bathymetry



#### Lake and Watershed Characteristics

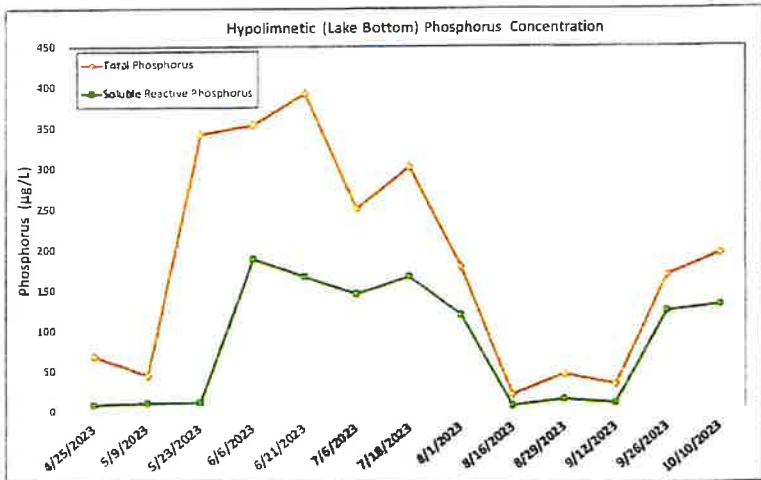
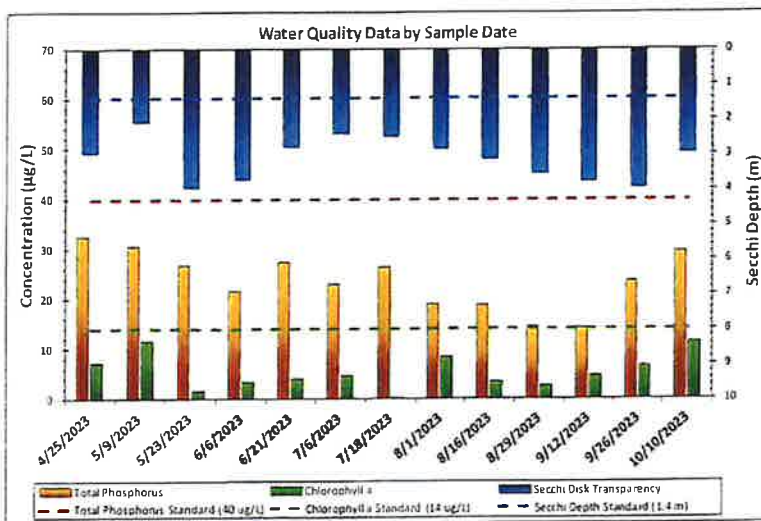
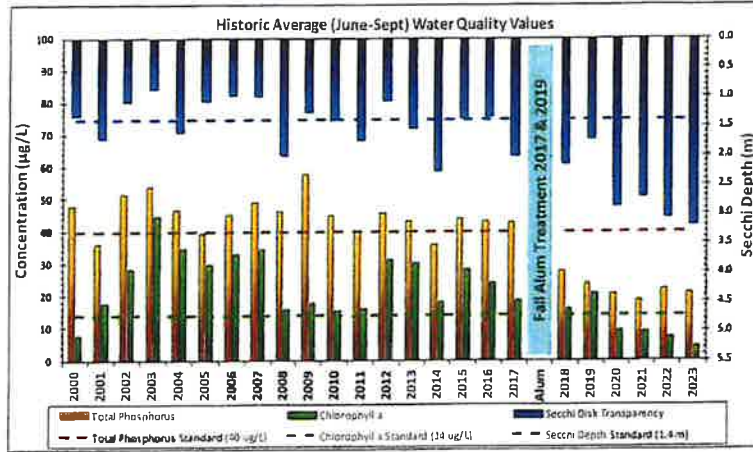
DNR #	27011800
Watershed Area	1,611 Acres
Lake Area	232 Acres
Percent Littoral Area	32%
Average Depth	20.5 ft.
Maximum Depth	49 ft.
Watershed: Lake Ratio	6.9:1
Impairment	Excess Nutrients in 2008
	Planned De-listing 2024
Classification	Deep Lake

Water Resource Department  
 Map Created: 11/24/2017  
 Revised Date: 1/7//2023

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### Fish Lake



Fish Lake Water Quality Report Card				
Year	TP	Chl-a	Secchi	Avg Grade
1995			C	C
1996			B	B
1997	C	C	C	C
1998	C	B	C	C+
1999	C	B	C	C+
2000	C	A	C	B-
2001	C	B	C	C+
2002	C	C	D	C-
2003	C	C	D	C-
2004	C	C	C	C
2005	C	C	D	C-
2006	C	C	D	C-
2007	C	C	D	C-
2008	C	B	C	C+
2009	C	B	C	C+
2010	C	B	C	C+
2011	C	B	C	C+
2012	C	C	D	C-
2013	C	C	C	C
2014	C	B	B	B-
2015	C	C	C	C
2016	C	C	C	C
2017	C	B	C	C+
2018	B	B	C	B-
2019	B	C	C	C+
2020	A	A	B	A-
2021	A	A	B	A-
2022	A	A	A	A
2023	A	A	A	A
<b>MPCA Standard</b>	C	B	C	C+

Met Council Grading System for Lake Water Quality

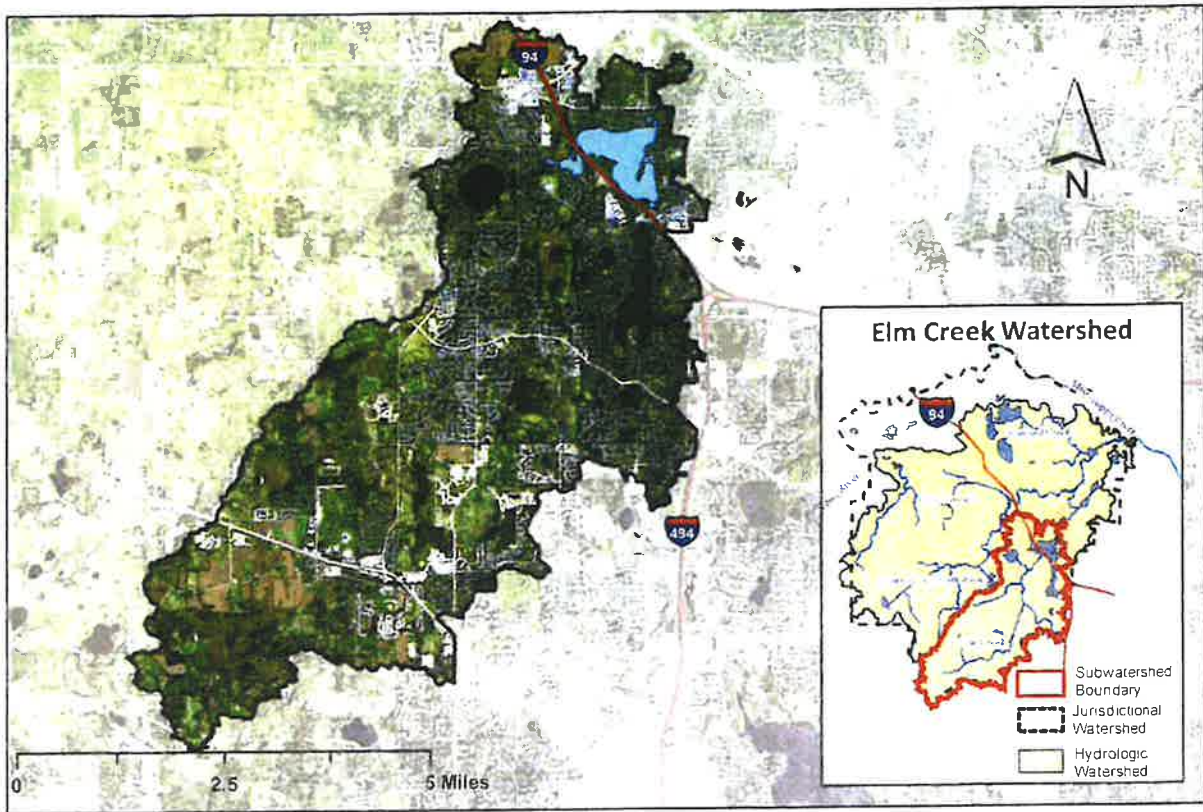


Division of Water Resources  
December 2023



## Rice Lake

### 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:Lake Ratio	52.4:1
Impairment	Excess Nutrients in 2010
Classification	Shallow Lake

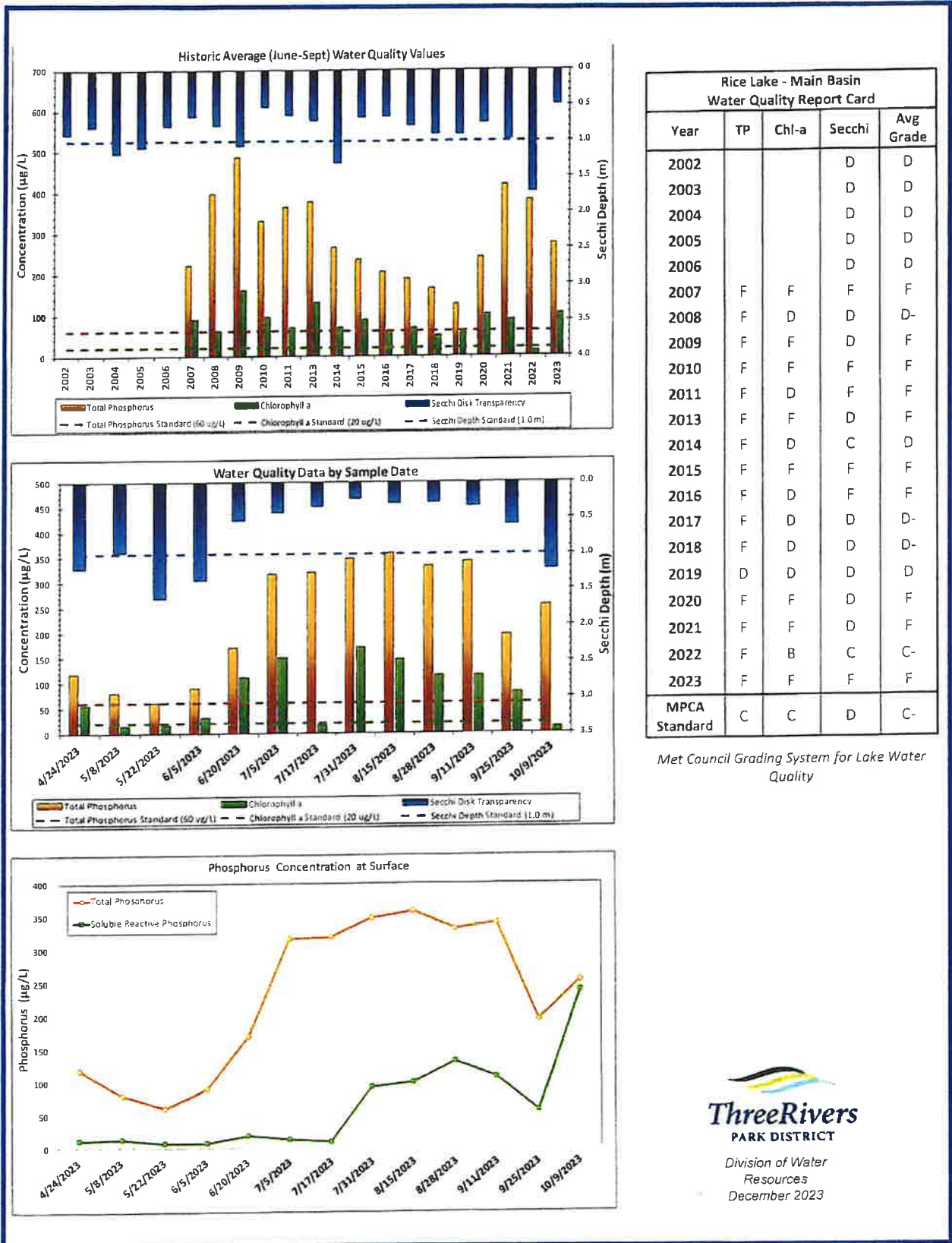
Water Resource Department  
 Map Created: 11/24/2017  
 Revised Date: 12/4/2017

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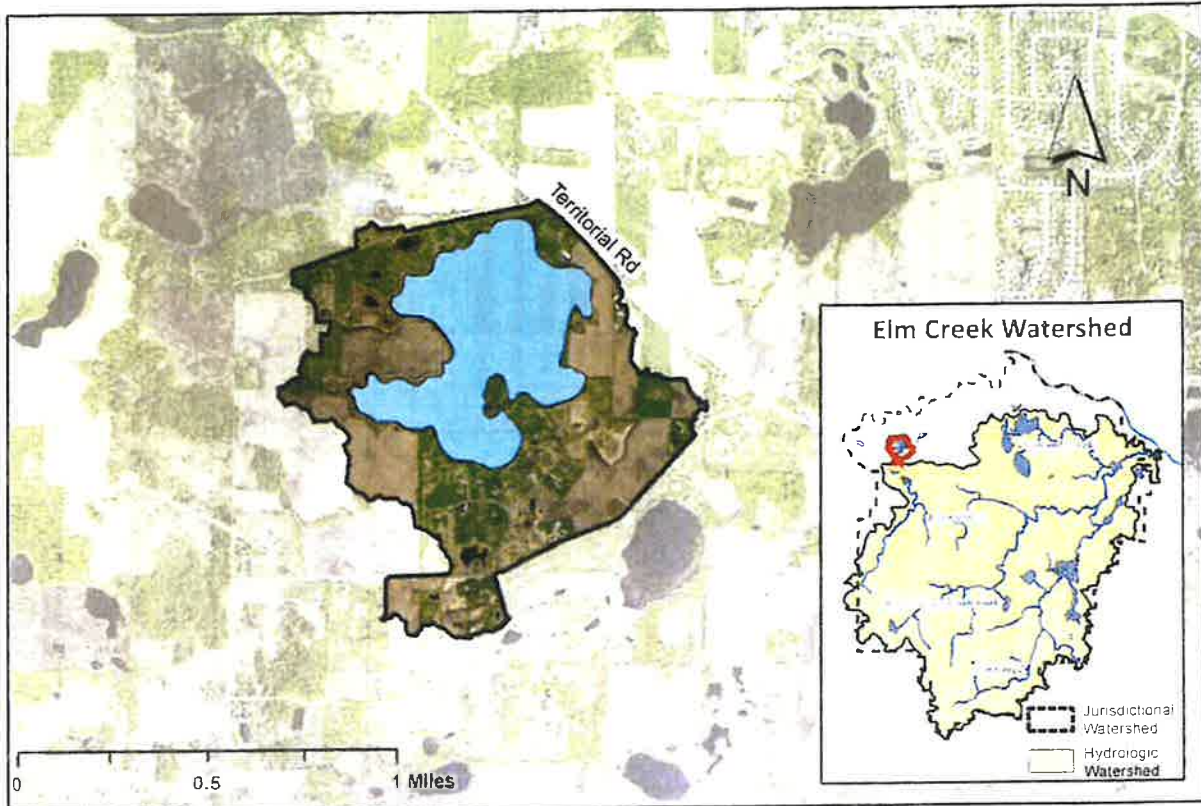


### Rice Lake



## Sylvan Lake

### Sylvan Watershed Map



### Sylvan Bathymetry



#### Lake and Watershed Characteristics

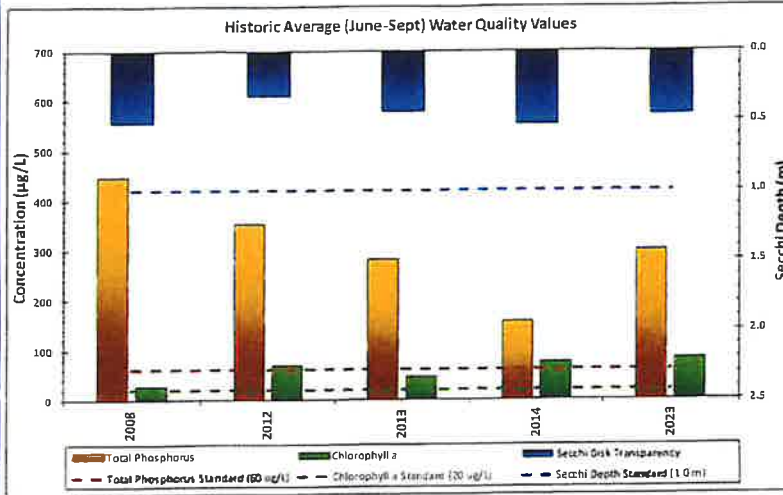
DNR #	27017100
Watershed Area	469 Acres
Lake Area	132 Acres
Percent Littoral Area	100%
Average Depth	6.9 ft.
Maximum Depth	15 ft.
Watershed Area: Lake Area	3.3:1
Impairment Classification	Excess Nutrients 2010
Classification	Shallow Lake

Water Resource Department  
 Map Created: 12/12/2023  
 Revised Date: 12/12/2023

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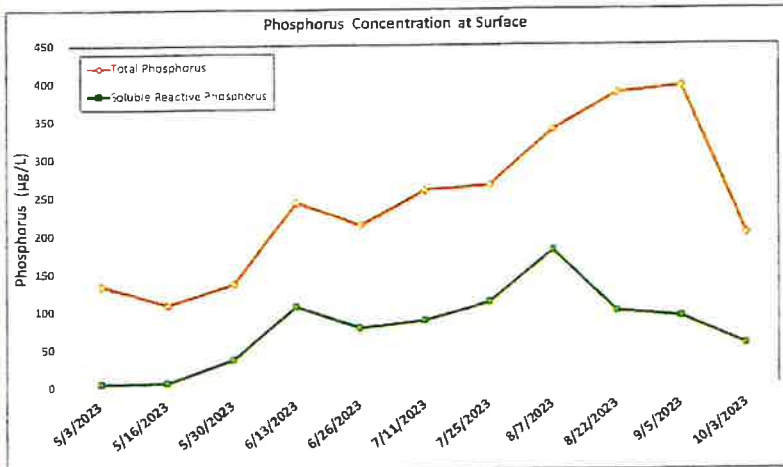
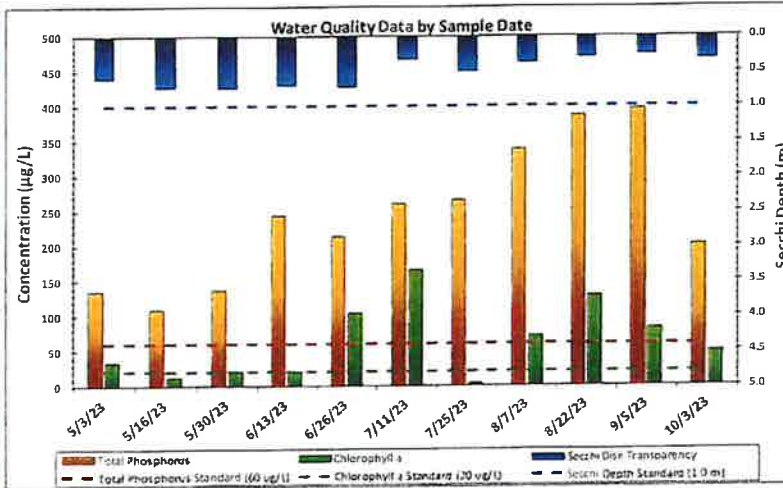
### Sylvan Lake



Year	TP	Chl-a	Secchi	Avg Grade
2008*	F	C	F	D-
2012*	F	D	F	F
2013*	F	C	F	D-
2014*	F	D	F	F
2023	F	F	F	F
MPCA Standard	C	C	D	C-

Met Council Grading System for Lake Water Quality

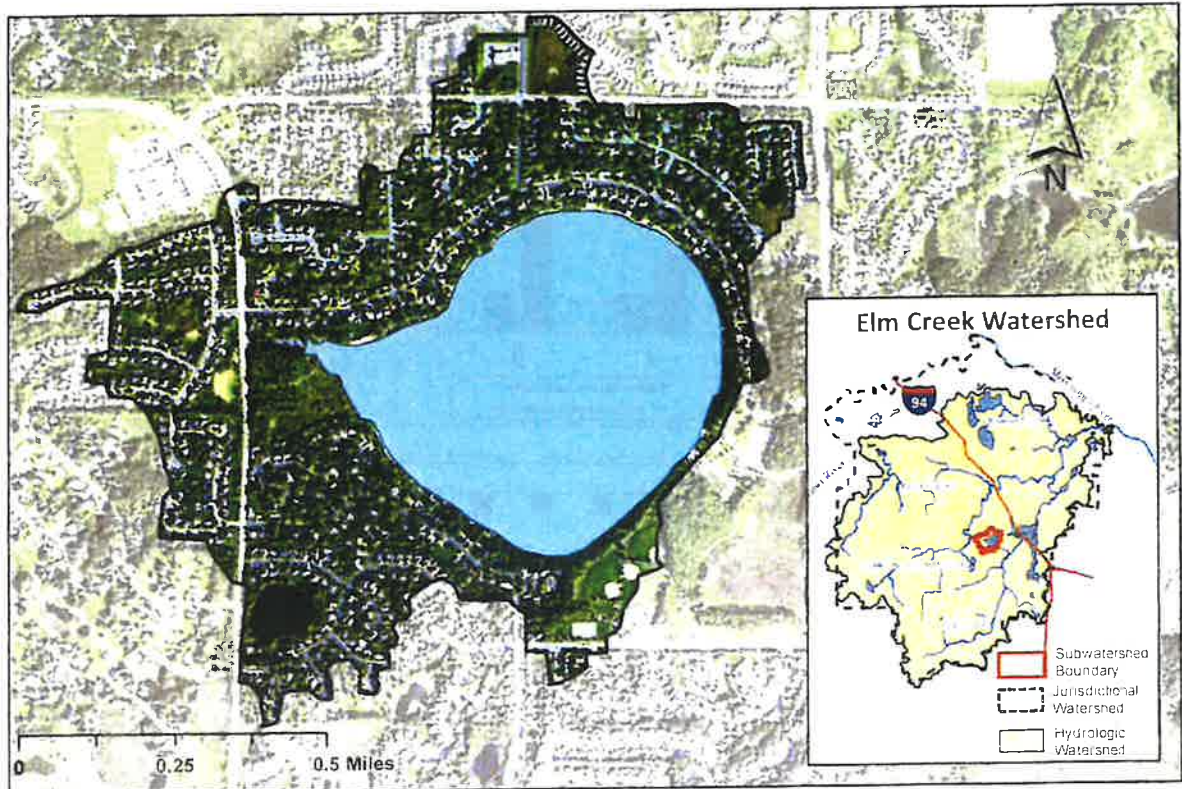
\*Data collected by volunteers for Met Council





## Weaver Lake

### Weaver Lake Watershed Map



### Weaver Lake Bathymetry



#### Lake and Watershed Characteristics

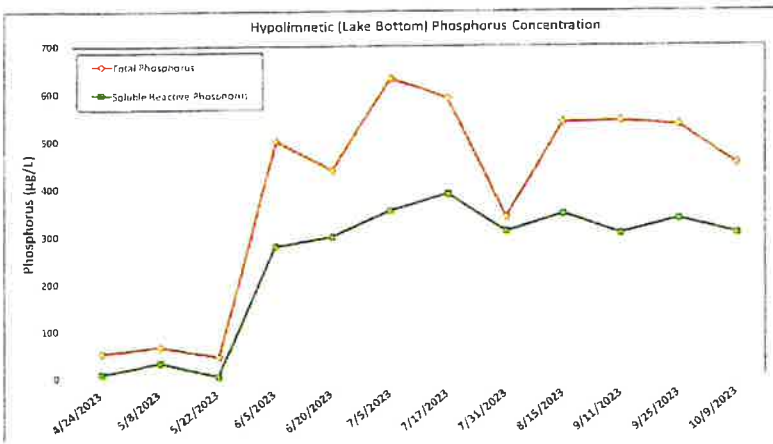
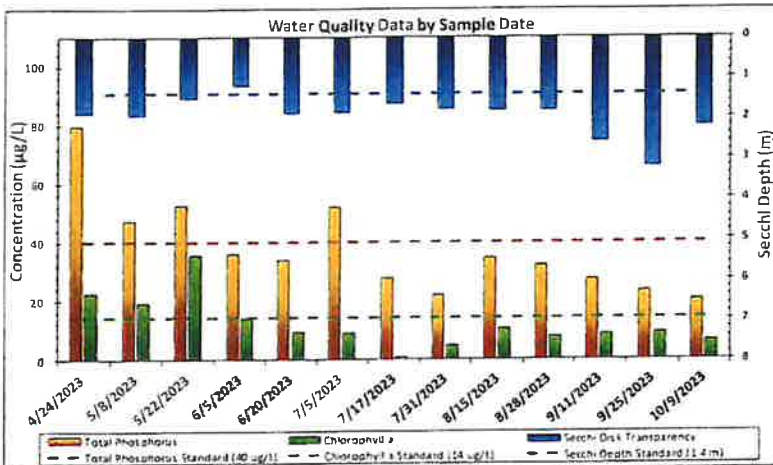
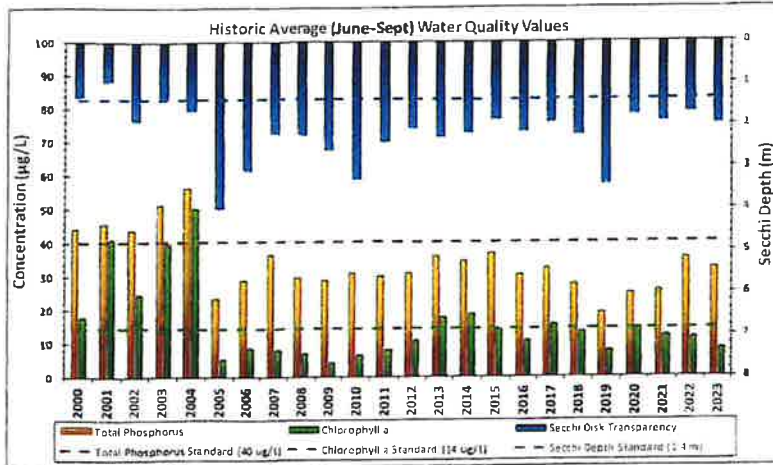
DNR #	27011700
Watershed Area	187 Acres
Lake Area	150 Acres
Percent Littoral Area	47%
Average Depth	21.1 ft.
Maximum Depth	52 ft.
Watershed:Lake Ratio	1.3:1
Impairment	None
Classification	Deep Lake

Water Resource Department  
 Map Created: 11/24/2017  
 Revised Date: 12/4/2017

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### Weaver Lake



Weaver Lake Water Quality Report Card				
Year	TP	Chl-a	Secchi	Avg Grade
1997	B	A	C	B
1998	C	B	C	C+
1999	C	C	C	C
2000	C	B	C	C+
2001	C	C	D	C-
2002	C	C	C	C
2003	C	C	C	C
2004	C	D	C	C-
2005	B	A	A	A-
2006	B	A	A	A-
2007	C	A	B	B
2008	B	A	B	B+
2009	B	A	B	B+
2010	B	A	A	A-
2011	B	A	B	B+
2012	B	B	C	B-
2013	C	B	B	B-
2014	C	B	B	B-
2015	C	B	C	C+
2016	B	B	C	B-
2017	C	B	C	C+
2018	B	B	B	B
2019	A	A	A	A
2020	B	B	C	B-
2021	B	B	C	B-
2022	C	B	C	C+
2023	C	A	C	C-
MPCA Standard	C	B	C	C+

Met Council Grading System for Lake Water Quality



Division of Water Resources  
December 2023

## 2023 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 at 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 at [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).

### Flow Monitoring

Storm event samples are collected using an automatic sampler. Routine manual sampling occurs approximately monthly. The average mean discharge for the 2022 water year (October 1, 2022, through September 30, 2023) was 30.30. Water year 2021 (October 1, 2022, to September 30, 2023) was below average for the Elm Creek discharge as compared to the 2020 water year that was still somewhat historically high at 57.7 cfs for the mean average discharge.



As an extreme comparison, the 2019 water year was higher and discharged more water downstream of the station than any time during the 42 years the station has been in place. During the 2022 water year the minimum and maximum observed average daily discharge values were 1.10 cfs on October 1, 2022, and 53 cfs on April 22, 2023. The long-term average daily discharge at the station is 43.9 cfs or 6.93 inches (years 1979-2020).

**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	4/2/20	229
3/18/85	579*	4/1/97	511*	3/27/09	119	3/14/21	177
3/27/86	812*	4/5/98	306	3/17/10	369	5/16/22	183
8/1/87	185	5/15/99	538*	3/24/11	803	4/22/23	553***
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		

\*These values have been revised based on the 2001 rating curve.

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

\*\*\* Provisional.



### Watershed TMDL 10-Year Review

The Elm Creek Watershed TMDL was completed in phases over several years, with additional monitoring and data gathering in 2009-2010, analysis and development of the TMDL between 2012-2014, and final completion of the TMDL document and accompanying Watershed Restoration and Protection Strategies document (WRAPS) in 2015. The reports were approved by the MPCA and EPA in 2016.

The Elm Creek TMDL study addresses

- Seven lake *nutrient* impairments (Cowley, Sylvan, Henry, Rice, Fish, Diamond, Goose)
- Four stream *E. coli* impairments.
- Three stream *DO* impairments.
- Four stream *fish and macroinvertebrate* impairments, with primary stressors *total phosphorus (TP)* and *total suspended solids (TSS)*.

**Since completion of the Watershed TMDL, there are new or pending impairments:**

- Elm Creek and the lower reach of S Fork Rush Creek are impaired for excess *chloride*.
- Two new impairments are pending: *TSS* in Elm Creek and *fish biotic integrity (F-IBI)* in Fish Lake.
- The Fish Lake nutrient impairment is proposed for “delisting” as the lake now meets state standards.

**When undertaking other TMDL reviews of progress, the Commission has considered the following steps:**

1. Update watershed runoff, pollutant loading, and lake response modeling to reflect most current land use information and monitoring data.
2. Collect new monitoring and other data to fill data gaps.
3. Collect data on BMPs undertaken since the TMDL baseline year(s) to estimate progress toward meeting the identified pollutant load reductions and non-numeric requirements.
4. Evaluate monitoring data to determine water quality trends and progress toward meeting goals.
5. Review implementation strategies and recommend any course corrections.

**Update Models.** Updating the various models used to quantify pollutant loading can range from simple to very detailed. Generally, this step is considered only when there has been significant land use change or where new data is available. While there has been development in the watershed, it is not considered significant enough to warrant updating the watershed pollutant loading models.

#### **Monitoring Data**

**Lakes.** The Commission has been annually monitoring four sentinel lakes – Fish, Weaver, Diamond, Rice – and monitoring two other lakes per year on a rotating basis. Three Rivers Park District (TRPD) monitored Sylvan and Cowley in 2023 as the “other” lakes. While the sentinel lakes have a good set

10-year TMDL review, page 2

of data available, it would be helpful to obtain more data on the non-sentinel impaired and other priority lakes: Sylvan, Cowley, Henry, Jubert, Dubay, Laura, and French, where there is very little data (Table 1).

**Table 1. Lake monitoring history since 2009.**

Year	Cook	Cowley	Diamond	Dubay	Fish	French	Goose	Henry	Jubert	Laura	Medina	Mill Pond	Mud	Rice	Sylvan	Teal	Weaver
2025			T	RB	T	RO		RO	RO	RB				T			T
2024		RB	T		T	RO		RO	RO					T	RB		T
2023		T	T		T									T	T		T
2022			T		T		T						T	T			T
2021			T		T		T					T	T	T			T
2020			T		T									T		C	T
2019			T		T									T			T
2018			T		T				C					T			T
2017			T		T				C					T			T
2016		C	T		T				C					T			T
2015			T		T				C	C				T			T
2014			T	C	T					C		T		T	C		T
2013			T	C	T	T				C		T		T	C		T
2012			T	C	T	T					C	T	T		C		T
2011			T	C	T	T		C				T	T	C/T			T
2010		C	T		T	T		C				T		C/T			T
2009		C	T		T	T		C				T		C			T

C = CAMP; T = Three Rivers; RB = recommended from budget; RO = recommended from other source.  
 Shaded = Impaired Waters; Sentinel Lakes: Diamond, Fish, Rice, Weaver

**Streams.** In addition to the partnership with the USGS to monitor flow and water quality on Elm Creek, the Commission currently routinely monitors flow and water quality at three sites on Elm, Rush, and Diamond Creeks (Figure 1). Some additional data is available at other sites in the watershed, most of it collected during the development of the TMDL or by the MPCA or DNR. There is also a good data set at Elm Creek at Hamel and Elm Creek at Elm Road in Plymouth.

**Stream Biology.** There is limited fish and macroinvertebrate data in the streams, mainly 2010 and 2020 data at a few sites on each stream completed by the MPCA and/or the DNR. Staff recommend that the Commission focus this review on quantifying chemical parameters and developing a plan for more systematically undertaking biological monitoring for evaluation during the next progress review.

**Load Reductions in the Watershed**

Cities and others undertake actions such as structural BMPs (infiltration practices, stream restoration, alum treatments, salt pre-wetting) or nonstructural actions (enhanced street sweeping, carp management, education and outreach). When land use conversion as part of development and redevelopment requires a Commission project review, that review includes an estimate of likely

10-Year TMDL review, page 3

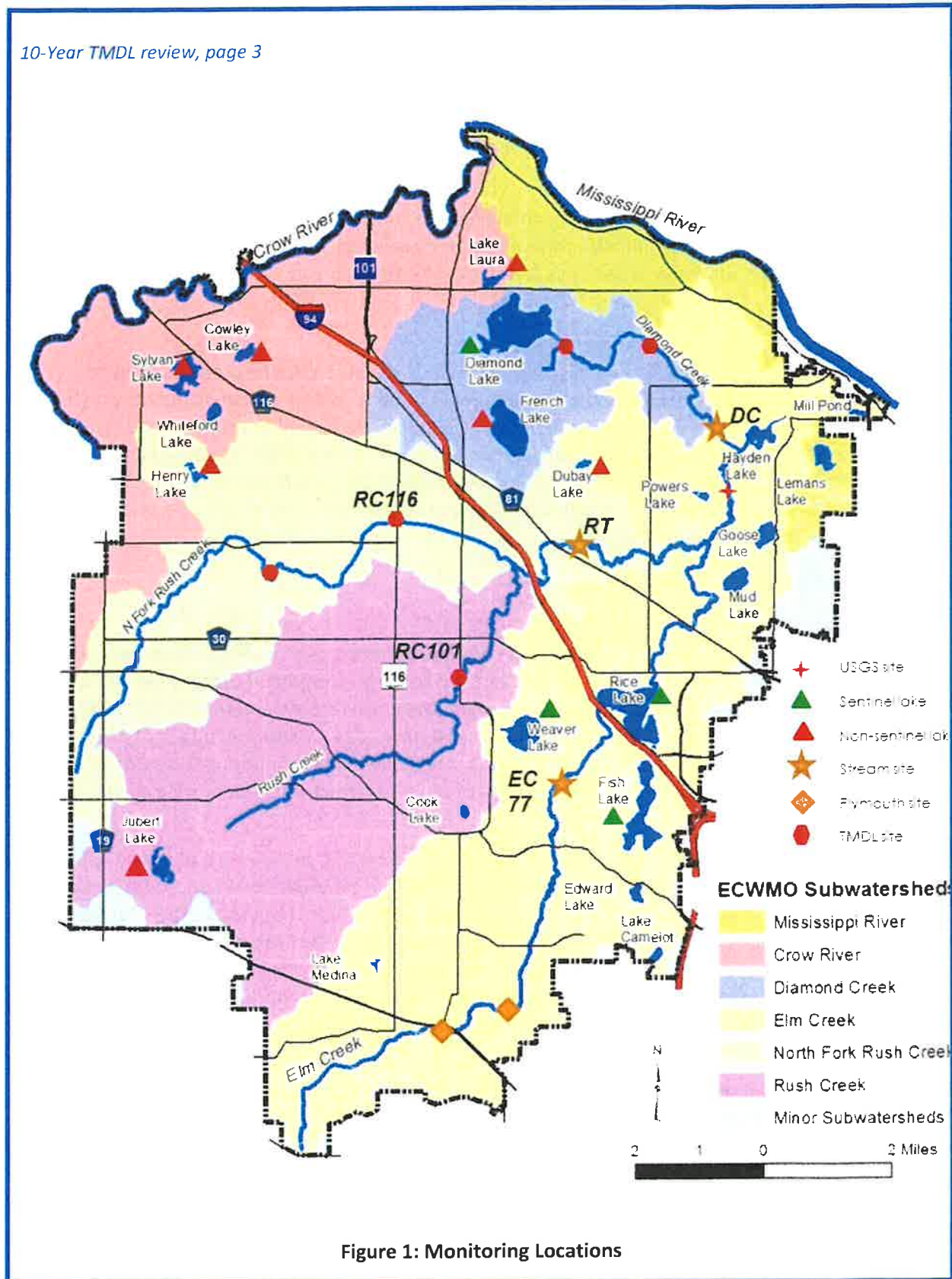


Figure 1: Monitoring Locations



[10-year TMDL review, page 4](#)

load reduction from adding new treatment and abstraction of runoff. Hennepin County assists property owners in undertaking agricultural and animal management practices and estimates the resulting reduction in pollutant loading. All this data is collected, assembled, and geolocated to document and summarize load reductions by receiving water.

**Evaluate Monitoring Data**

The Park District has been collecting and maintaining lake and stream data for many years, and the annual report includes figures and tables showing water quality by year. For some sites there is enough data to run trend analysis statistics to determine if there are any statistically significant trends.

**Review Implementation Strategies and Report**

The final step in such a review is compiling the information developed in the previous tasks to provide an overall summary of actions taken and progress made to date, including quantifying how much of the required load reductions has been achieved. The Watershed Restoration and Protection Strategies (WRAPS) report, which is the “implementation plan” of the TMDL, identified a universe of potential actions the various stakeholders could take to make progress toward the TMDL. This review identifies what has been successful and what not so successful and develops a prioritized action plan for the next several years.

**RECOMMENDED SCOPE OF WORK****Task 1: Data Collection**

**Lakes.** It has been the Commission’s practice to obtain at least two years’ worth of lake data in the event the first year is non-representative of conditions, so **Staff recommend that Sylvan and Cowley be repeated in 2024 from the 2024 operating budget. They also recommend that Henry, Jubert and French be monitored in 2024 as a supplement to the routine 2024 monitoring, and that those lakes are repeated in 2025.** In 2025 they would undertake the first year of monitoring Dubay and Laura from the 2025 operating budget. The CAMP program can fill in where volunteers are available on other lakes.

**Streams.** There are long-term routine monitoring sites on Elm (EC77 on Figure 1), Diamond (DC), and Rush Creeks (RT), and Plymouth contracts with TRPD for ongoing monitoring on upper Elm Creek at Hamel, Elm Road and at Peony Lane. North Fork and South Fork Rush Creek above their confluence were monitored during development of the TMDL, but there has been little monitoring since that time. These sites are downstream of ongoing development as well as previous and current subwatershed assessments. **Staff recommend that the Commission monitor South Fork (RC101) and North Fork (RC116) in 2024 and 2025** to help assess any change since they were last monitored prior to the TMDL.

*Note: this monitoring would require an amendment to the contract with Three Rivers, which runs through 2024. There would likely be some adjustment to the costs for 2025 under a new contract.*

**Cost to complete:** Lakes: \$4,746 in 2024 and \$4,746+ in 2025. Streams, \$6,524 in 2024 and \$6,524 in 2025. TOTAL: \$11,270 in 2024 and \$11,270+ in 2025.

*10-year TMDL review, page 5*

**Task 2: Compile Load Reduction Data**

This task would be collecting and compiling information on load reductions completed in the watershed, and mapping and summarizing those reductions by drainage area. This involves three subtasks. (1) Obtain information from the cities, TRPD, and the County regarding any structural and non-structural load reduction BMPs completed in the watershed, their locations and load reductions. If reductions are not available, Staff would prepare an estimate. (2) The most time-consuming task would be compiling load reductions and geo-referencing development in the watershed since the monitoring for the TMDL was completed. Data has been compiled since 2015, but project locations must be digitized. Pre-2015 all that exists are lists of project reviews, so Staff would have to go back to the original files and engineer's reports to compile that data for about 200 project reviews. (3) Partner with Hennepin County to compile and track ag projects completed in the watershed and update the animal unit counts in the watershed.

**Cost to complete:** \$10,896, to be completed by August 1, 2024

**Task 3: Evaluate Monitoring Data**

This task has two subparts: (1) Work with Three Rivers Park District to undertake statistical trend analysis where there is a good data set to determine if there are any statistically significant trends; and (2) compile, summarize, and document other data collected in the watershed by the MPCA, DNR, and any other parties to add context and robustness to Three Rivers' dataset.

**Cost to complete:** \$3,216, to be completed by December 31, 2024

**Task 4: Review Implementation Strategies**

The WRAPS report identified a universe of potential actions the various stakeholders could take to make progress toward the TMDL. This task would identify what has been successful and what not so successful and develop recommended implementation actions and a prioritized action plan for the next several years. This task includes at least two meetings of the TAC and Commission to review findings and discuss potential actions and strategies for their implementation.

**Cost to complete:** \$7,220, to be completed by December 31, 2024

**Task 5: Final Report**

The final task is to summarize all the information collected, compiled, and developed during this process into a final report. The report will identify all the required load reductions and other actions in the TMDL and WRAPS and present the load reductions achieved and other actions completed within the drainage area to each Impaired Water by city. This will be the basis to determine how much progress has been made and how much additional work would be necessary to achieve water quality standards.

The report will set forth the revised, prioritized implementation strategies, their costs, potential sources of funding, and responsible parties. The final report will be available to incorporate into the Commission's Fourth Generation Watershed Management Plan that will be underway at about the same time, as well as the member cities' upcoming local water plans, and will be provided to the MPCA.

10-year TMDL review, page 6

**Cost to complete:** \$5,596, draft by April 1, 2025, final by December 31, 2025

**SUMMARY AND FUNDING**

When Staff discussed this topic in spring 2023, they estimated the cost of this update, ongoing monitoring, and the other tasks would be about \$40,000. As they’ve been able to review data availability more comprehensively and the scope of work involved, their revised cost estimate is \$26,928 for Stantec analytical work and \$22,540 (potentially adjusted for new rates in 2025) for additional lake and stream monitoring by the Park District (Table 2).

**Table 2. Estimated cost to complete the proposed scope of work.**

Task	Three Rivers		Stantec**	TOTAL
	2024	2025*		
1. Data Collection	\$11,270	\$11,270*		\$22,540*
2. Compile Data			\$10,896	\$10,896
3. Evaluate Monitoring Data			\$3,216	\$3,216
4. Review Implementation Strategies			\$7,220	\$7,220
5. Final Report			\$5,596	\$5,596
<b>TOTAL</b>	<b>\$11,270</b>	<b>\$11,270*</b>	<b>\$26,928</b>	<b>\$49,468*</b>

\* Cost may increase based on Three Rivers’ 2025-2026 contract.

\*\*The fee estimate in Table 2 has been prepared on a time and materials basis, per the Terms and Agreements set forth in Stantec’s Professional Services Agreement dated March 5, 2021, and will not exceed the amount indicated without prior authorization from the Commission.

At the end of 2022, the Commission had a balance of \$181,817 in **funds assigned for projects or studies**. The Commission encumbered \$9,468 of that in 2023 to match WBIF grant funds, leaving an available balance of about \$172,349. If the Commission chooses to proceed, **Staff recommend this as the funding source**.

At their November 8, 2023, meeting, the Commission approved the scope of work at \$49,468 from the fund balance assigned for projects or studies and authorized Staff to prepare an amendment to the contract with Three Rivers to add \$11,270 to the 2024 services for additional lake and stream monitoring.





## 2023 Hennepin County Projects

### Rush Creek Clean Water Fund Grant

- Reached 241 landowners through targeted outreach
- 10 residents assisted with site visits, technical assistance, and project planning
- 5 grassed waterways, 1 WASC OB (water and sediment control basin), 2 livestock exclusion fences, 2 livestock waterers and gutter upgrades were made
- Reduce an estimated 47.22 tons TSS, 110.86 lbs. TP from reaching Rush Creek annually
- Momentum continues as multiple projects including two WASC OBs, one manure bunker, and one wetland restoration are underway. Multiple projects are still possible.

### Diamond Hills Stable (Dayton)

Working with new operators of this horse boarding facility to develop BMPs which would reduce nutrient runoff from manure. BMPs considered include barn gutters, grazing management, and a manure bunker. Work on this project has been put on hold at the landowners request until they better understand what they want to do with management of the facility moving forward.

### Van Asten Manure Bunker and Cover Crops (Dayton)

Working with landowner as parcel is converted from row crop farm to perennial pasture for grazing livestock and horses. Have implemented cool season cereal rye as a nurse crop and will plant a warm season diversified cover crop in 2024. Currently working on plans for a manure bunker and drainage management practices around newly constructed barn. Manure bunker should be approved and constructed in late 2024.

### Welcome Ranch BMP's (Dayton)

Working with the operator of this horse boarding facility to develop BMPs that will help reduce erosion and potential nutrient runoff from manure. Currently working to design manure bunker for storage and composting. Other BMPs being considered include barn gutters and heavy use area protections for erosion control in high traffic areas.

### Mattila Manure Bunker (Corcoran)

Manure bunker for landowners horses and cattle herd was installed in 2023. The roofed manure bunker will help store manure away from the elements while also directing potential runoff away from the structure. Hennepin County had previously worked with the landowner on installing barn gutters and livestock waterers for rotational grazing. Future

## 2023 Hennepin County Projects – 2

work will be done to develop grazing plans and potential fencing for rotational grazing on the western side of Rush Creek which runs through the property.

### **Bottema Wetland Restoration (Corcoran)**

This project was working with a landowner to restore upland prairie and wetlands over approximately 40 acres of former cropland. Hennepin County helped design the project which was installed in late 2023. Current work is being done to correct erosion issues that occurred after installation and to continuously manage prairie planting.

### **Stotts 1B and Top of Hill Waterway (Corcoran)**

This project is the installation of a water and sediment control basin to control sediment erosion from the farm field to the west of the property. Landowner is currently working with their neighbor to negotiate the siting of the practice. Updates and repairs are also being made to a grassed waterway that was installed in 2021 but has suffered some erosion due to heavy storms immediately after construction.

### **Cain Exclusionary Fence (Corcoran)**

Staff performed a one-year inspection on the exclusionary fence that was installed as a part of the Clean Water Fund grant for Rush Creek. The fence is in excellent condition and the landowner has done a good job of keeping it clear of brush. Owner of cattle recently pulled the herd from this property for the rest of the year, but will return them for the 2024 season.

### **Christian Settling Basin (Dayton)**

Hennepin County staff are working with the landowner of two parcels with a rare fen onsite. The goal of this project is to reduce sediment and nutrient loading to this wetland from a neighboring crop field. The project will help slow down runoff and let sediment settle out before it has a chance to reach the open water wetland. The County has been working with the landowner to secure the correct permits with a tentative 2024 installation.

### 2022-2024 Operating Budgets

Line	Category	2022 Budget	2023 Budget	2024 Budget
1	Administrative	95,000	100,000	100,000
2	Grant Writing	500	0	3,000
3	Website	3,000	2,000	2,000
4	Legal Services	2,000	2,000	2,000
5	Audit	6,000	6,500	7,000
6	Insurance	3,800	4,000	4,000
7	Meeting Expense	0	0	4,800
8	Contingency	1,000	0	0
	<b>Subtotal General Operating Expenses</b>	<b>\$111,300</b>	<b>\$114,500</b>	<b>\$122,800</b>
<b>TECHNICAL SUPPORT</b>				
9	Tech support – HCEE	12,000	20,000	22,000
10	Generation Technical Services	77,500	70,000	75,000
	<b>Subtotal Technical Support</b>	<b>\$89,500</b>	<b>\$90,000</b>	<b>\$97,000</b>
<b>PROJECT REVIEWS</b>				
11	Technical Reviews	107,500	184,000	184,000
12	Administrative Support	15,000	16,000	21,250
13	WCA	0	0	0
	<b>Subtotal Project Reviews</b>	<b>\$122,500</b>	<b>\$200,000</b>	<b>\$205,250</b>
<b>EDUCATION</b>				
14	Education – City/Citizen Programs	2,500	2,000	2,000
15	West Metro Water Alliance	11,500	11,500	11,500
	<b>Subtotal Education</b>	<b>\$14,000</b>	<b>\$13,500</b>	<b>\$13,500</b>
<b>WATERSHED MANAGEMENT PLAN</b>				
16	Plan Amendments	2,000	2,000	2,000
17	Contribution to 4th Generation Plan	12,500	12,500	12,500
	<b>Subtotal Watershed Management Plan</b>	<b>\$14,500</b>	<b>\$14,500</b>	<b>\$14,500</b>
	<i>Stream Monitoring</i>			
18	USGS Site Share	24,000	24,000	12,500
19	TRPD-Routine Monitoring	9,345	10,020	10,020
20	Biological Monitoring		4,500	0
21	DO Longitudinal Survey	1,200	2,400	2,400
22	Partnership Biomonitoring		2,000	0
23	Gauging Station – Electric Bill	420	440	480
	<b>Subtotal Stream Monitoring</b>	<b>\$34,965</b>	<b>\$43,360</b>	<b>\$25,400</b>

## 2022-2024 Operating Budgets - 2

Line	Category	2022 Budget	2023 Budget	2024 Budget
	<i>Lake Monitoring</i>			
24	CAMP	840	840	840
	TRPD			
25	Sentinel Lakes + Additional Lake	9,812	10,412	10,412
26	Aquatic Vegetation Surveys	1,300	1,365	1,365
	<b>Subtotal Lake Monitoring</b>	<b>\$11,952</b>	<b>\$12,617</b>	<b>\$12,617</b>
	<i>Other Monitoring</i>			
27	Macroinvertebrate Monitoring-River Watch	3,000	0	3,000
28	Wetland Monitoring – WHEP	4,000	0	0
	<b>Subtotal Other Monitoring</b>	<b>\$7,000</b>	<b>\$0</b>	<b>3,000</b>
	<b>Subtotal Monitoring Expense</b>	<b>\$50,917</b>	<b>\$55,977</b>	<b>\$41,107</b>
	<b>SPECIAL PROJECTS, STUDIES, SWAs</b>			
29	Special Projects, Studies, SWAs -	\$ 0	\$0	\$0
	<b>TOTAL GEN OPERATING EXP</b>	<b>\$405,717</b>	<b>\$488,477</b>	<b>\$494,067</b>
30	Membership Dues	237,300	250,000	250,000
31	Interest Income	5,000	500	10,000
32	Dividend Income	250	250	0
33	TRPD Cooperative Agreement	6,000	6,500	6,500
	<b>Subtotal General Operating Revenue</b>	<b>\$248,550</b>	<b>\$257,250</b>	<b>\$266,500</b>
34	Project Review Fees	107,500	184,000	184,000
35	Contingency	10,750		
36	Nonrefundable Admin	15,000	16,000	21,250
37	Nonrefundable Tech	16,125	17,000	27,600
	<b>Subtotal Project Review Revenue</b>	<b>\$149,375</b>	<b>\$217,000</b>	<b>\$232,850</b>
	<b>SPECIAL PROJECTS, STUDIES, SWAs REVENUE</b>			
38	Special Projects, Studies, SWAs	0	0	0
	<b>TOTAL GEN OPERATING REVENUE</b>	<b>\$397,925</b>	<b>\$474,250</b>	<b>\$499,350</b>
	<b>OPERATING SURPLUS OR (DEFICIT)</b>	<b>(\$7,792)</b>	<b>(\$14,227)</b>	<b>\$5,283</b>



**2022-2024 Member Assessments**

2022	2021 Taxable Market Value	2022 Budget Share		Increase over Prev Year	
		%age	Dollars	%age	Dollars
Champlin	603,102,432	3.940	9,349	-0.05	-452
Corcoran	1,053,101,089	6.880	16,325	0.03	522
Dayton	1,000,693,347	6.537	15,513	0.08	1,138
Maple Grove	7,344,495,742	47.979	113,855	-0.03	-3,242
Medina	1,187,298,004	7.756	18,406	-0.02	-282
Plymouth	1,887,099,770	12.328	29,254	0.07	1,918
Rogers	2,231,809,062	14.580	34,598	0.01	398
<b>Totals</b>	<b>15,307,599,446</b>	<b>100.000</b>	<b>237,300</b>	<b>0.00%</b>	<b>0</b>
2023	2022 Taxable Market Value	2023 Budget Share		Increase over Prev Year	
		%age	Dollars	%age	Dollars
Champlin	807,005,389	3.942	9,854	0.05	505
Corcoran	1,544,836,780	7.546	18,864	0.05	2,539
Dayton	1,644,909,207	8.034	20,086	0.05	4,573
Maple Grove	9,535,464,544	46.575	116,436	0.05	2,581
Medina	1,515,134,760	7.400	18,501	0.05	96
Plymouth	2,517,439,300	12.296	30,740	0.05	1,486
Rogers	2,908,759,834	14.207	35,519	0.05	921
<b>Totals</b>	<b>20,473,549,814</b>	<b>100.000</b>	<b>250,000</b>	<b>0.00%</b>	<b>12,700</b>
2024	2023 Taxable Market Value	2024 Budget Share		Increase over Prev Year	
		%age	Dollars	%age	Dollars
Champlin	898,761,000	3.999	9,998	0.01	144
Corcoran	1,808,292,200	8.046	20,116	0.07	1,252
Dayton	2,031,786,500	9.041	22,602	0.13	2,516
Maple Grove	10,043,624,100	44.690	111,726	-0.04	-4,711
Medina	1,680,727,800	7.479	18,697	0.01	195
Plymouth	2,671,442,700	11.887	29,717	-0.03	-1,023
Rogers	3,339,194,100	14.858	37,145	0.05	1,627
<b>Totals</b>	<b>22,473,828,400</b>	<b>100.000</b>	<b>250,000</b>	<b>0.00%</b>	<b>0</b>



