



**Elm Creek
Watershed Management Commission**

2015 Annual Activity Report

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This report was prepared
for the Elm Creek Watershed Management Commission
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Cover photograph:
Fishing on Weaver Lake
Beverly Love

This annual activity report has been prepared by the Elm Creek Watershed Management Commission in accordance with the annual reporting requirements of Minnesota Rules Chapter 8410.0150, Subp. 2 and 3. It summarizes the activities undertaken by the Commission during calendar year 2015.

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.

The Commission 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, www.elmcreekwatershed.org.

Appendix 1 includes the names of the Commissioners appointed to serve in 2015. Also listed there are the individuals/firms serving as the Commission's administrative, legal and technical support staff along with the members of the Commission's Technical Advisory Committee (TAC). 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

Table 1 - Area of Members within the Elm Creek Watershed

Local Government Unit	Area (Square Miles)	%age of Watershed
Champlin	3.08	2.36%
Corcoran	36.06	27.61%
Dayton	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%
	130.61	100.0%

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 Commission's website.

Watershed Plan

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

The Commission began work on the Third Generation Plan in January 2013. The Plan includes information required in the Minnesota Administrative Rules Chapter 8410, Local Water Management: an 1) 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 Total Maximum Daily Load study (TMDL) and Watershed Restoration and Protection Strategy study (WRAPS), completed between 2009 and 2015.

Issues

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

- **Water quality**—numerous lake and stream impairments, impact of land use changes, stream stability issues
- **Agricultural impacts on water quality**—need to 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

Priorities

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

- **Begin implementing priority projects** in 2015, providing 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 using the City of Medina ordinance as a guide; 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 WMWA and other partners

Goals

Water Quantity

- Maintain post-development 2-year, 10-year, and 100-year peak rate of runoff at pre-development level for the critical duration precipitation event.
- Maintain post-development annual runoff 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. The Commission chose to adopt those new standards in advance of the Third Generation Plan, effective January 1, 2015.

In general, the new Rules and Standards apply to all development and redevelopment 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 the 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 will be 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 such as the West Metro Water Alliance (WMWA), Blue Thumb, 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

Revisions to Minnesota Rules 8410 adopted in 2015 include significant changes in the timing of local water plan revisions. Per 8410.0105 sub-paragraph 9 and 8410.0160 subparagraph 6:

- Local water plans must be prepared by metropolitan cities and towns and a local water plan must become part of the local comprehensive plan for a municipality.
- Under the amended rule, local water plans must be revised essentially once every ten years in alignment with the local comprehensive plan schedule.
- A municipality has two years before their local comprehensive plan is due to adopt their local water plan.
- Prior to adoption, a municipality must prepare their local water plan, distribute it for comment, and have it approved by the organization with jurisdiction in the municipality.
- The next local comprehensive plans are due December 31, 2018. All cities and towns in the seven-county metropolitan area must complete and adopt their local water plans between January 1, 2017 and December 31, 2018. Thereafter, add ten years to each of the previous dates.
- Local water plans may be updated more frequently by a municipality at its discretion.

2015 Work Plan in Review

The Elm Creek Commission identified the following activities to be undertaken in 2015. Progress toward completing those activities is *italicized*.

■ Technical ■ Water Monitoring ■ Education ■ Administrative

■ Continue to review local development/redevelopment plans for conformance with the standards outlined in the Commission's Watershed Management Plan. *Thirty-nine projects were reviewed by the Commission in 2015. A list of the projects, the criteria for which they were reviewed, and comparisons of the pre- and post-conditions relating to rate control and volume loads can be found in Appendix 2, along with a map showing the location of the projects. The Commission does not have a permit program.*

■ Serve as the local government unit (LGU) for administering the Wetland Conservation Act (WCA) for the cities of Champlin and Corcoran. *The Commission continued to serve as WCA LGU for Champlin and Corcoran. In 2015 the Commission reviewed 22 plans involving wetlands and participated in 14 Technical Evaluation Panels (TEPs). No wetland banking applications were received. Three new potential WCA violations were also investigated. The Commission does not have a wetland banking program.*

■ Continue development of the Elm Creek WRAPS project, including an implementation component and requisite TMDLs. *A draft of the TMDL report was submitted to MPCA for informal review on March 3, 2015 ; MPCA staff comments on the draft report were received on August 14. TRPD staff worked through a number of issues raised by MPCA staff, revised the TMDL*

report accordingly, and uploaded a revised draft to the MPCA on October 27. The draft TMDL was forwarded by MPCA to the US EPA on December 2 for their informal review. The Commission also made the report available for informal review to Commission and Technical Advisory Committee (TAC) members on December 11. A draft of the WRAPs report was submitted to MPCA for informal staff review on August 31. MPCA staff were still reviewing the report at 2015 year-end.



As part of the River Watch program, students from Kaleidoscope Charter School in Otsego monitored Rush Creek at 101st Lane in Maple Grove (above left); Wayzata High School students monitored two sites—Elm Creek at Elm Creek Golf Club in Medina (above right) and Elm Creek at Peony Lane near the high school in Plymouth (right).



■ Promote river stewardship through the River Watch program. Six sites will be monitored in 2015. *Three sites were monitored in the Elm Creek watershed in 2015. Appendix 3 contains more information about the River Watch program and the 2015 results.*

■ Seek grant funding to assist with the costs associated with projects identified on the Commission's CIP. *The Commission will continue to seek grant opportunities for projects listed on its CIP as well as other special projects, studies and subwatershed assessments as well as to partner with member cities on projects where appropriate.*

■ Continue to support City-sponsored projects using the ad valorem funding mechanism. *At a public hearing called on September 9, 2015, the Commission approved funding for CIP-2 the Plymouth Elm Creek Restoration Project. The project will undertake 1200 feet of bank stabilization and erosion control within Elm Creek Reach D, increase the channel area, and lower hydraulic shear stress. The project will also involve planting native vegetation to stabilize the banks and buffer the stream from adjacent turf management practices. Total project cost is estimated to be \$1,086,000. The Commission's share will be \$250,000, the maximum amount approved by the Commission, and will be funded by the Hennepin County ad valorem funding mechanism. (Appendix 4)*

- Support the North Fork Crow River (CROW) as it begins development of its One Watershed One Plan. *The Commission wrote a letter supporting the CROW's efforts in seeking a BWSR 1W1P pilot grant.*
- Conduct lake and stream monitoring programs to track water quality and quantity conditions. *The Commission monitored Diamond, Fish, Rice and Weaver lakes in cooperation with Three Rivers Park District (TRPD). Lake report cards for these lakes can be found in Appendix 5. The Commission also funded the monitoring of Jubert and Laura lakes through Metropolitan Council's Citizen Assisted Monitoring Program (CAMP). 2015 monitoring results for these lakes will be included in the 2015 CAMP report, available in summer 2016. For more information on CAMP, contact Brian Johnson, brian.johnson@metc.state.mn.us, or 651.602.8743.*
- Continue to operate the monitoring station in Champlin in cooperation with the United States Geological Survey (USGS). *Stream monitoring continued at the Champlin monitoring station where both grab samples and storm runoff samples were collected and analyzed for various parameters. Monitoring results are found in Appendix 6.*
- The Commission will also monitor lower Rush Creek (RT) and lower Diamond Creek (DC) in cooperation with TRPD. *Three Rivers Park District performed flow monitoring at RT and DC and at a site on Elm Creek above Rice Lake in 2015. See Appendix 6 for monitoring results.*
- Participate in the Minnesota Wetland Health Evaluation Program (WHEP). Four wetlands in the Elm Creek watershed will be monitored in 2015. *The four wetlands monitored in 2015 were located in the Elm Creek Park Reserve (ECP-1) and at CHP-1, CHP-2, and CHP-3 in Crow Hassan Park. More information about WHEP and the 2015 findings are found in Appendix 7.*
- Partner with the Hennepin County Department of Environment and Energy (HCEE) in the Stream Health Evaluation Program (SHEP) to monitor six sites in the Elm Creek watershed. *SHEP monitoring occurred at seven sites in 2015. (Appendix 8)*

SHEP samples were collected by volunteers on October 24, 2015, from this reach of Elm Creek crossed by Territorial Trail in the Elm Creek Park Reserve.



- Continue as a member of the West Metro Water Alliance (WMWA). *The Commission continued to support the WMWA Educator Program and contribute articles to its e-newsletter Water Links. The Commission promoted the Watershed PREP (Protection, Restoration, Education, and Prevention) program to reach every 4th grade science class in the watershed. Over 2,000 students in ten schools in the Elm Creek watershed participated in Lesson 1: What is a Watershed and Why do we Care? and Lesson 2: The Incredible Journey. The Watershed Prep educators also presented at the Basswood Science Night, the Fernbrook Nature Night, the Plymouth Home Expo and the Plymouth Kids Fest. In 2015 the Commission also collaborated on the Pledge to Plant for Clean Water and Pollinators project and creation of the new WMWA website, www.westmetrowateralliance.org.*



The Commission continued to support the WMWA Educator Program and contribute articles to its e-newsletter Water Links. The Commission promoted the Watershed PREP (Protection, Restoration, Education, and Prevention) program to reach every 4th grade science class in the watershed. Over 2,000 students in ten schools in the Elm Creek watershed participated in Lesson 1: What is a Watershed and Why do we Care? and Lesson 2: The Incredible Journey. The Watershed Prep educators also presented at the Basswood Science Night, the Fernbrook Nature Night, the Plymouth Home Expo and the Plymouth Kids Fest. In 2015 the Commission also collaborated on the Pledge to Plant for Clean Water and Pollinators project and creation of the new WMWA website, www.westmetrowateralliance.org.

- Participate as an exhibitor at Plymouth's Home Expo. *Volunteers from the Commission manned a booth at the Expo, April 10-11, 2015, alongside other watershed organizations to promote water quality initiatives.*

- Continue as a member of Blue Thumb and WaterShed Partners and a partner in the NEMO (Nonpoint Education for Municipal Officials) program. *The Commission will continue its membership in these organizations with financial support and in-kind contributions.*

- Co-sponsor Rain Garden Workshops in conjunction with the Commission's Education and Public Outreach Program. *The cities of Champlin and Plymouth hosted workshops in 2015.*

- Continue to award Water Quality Education Grants. Grant funds are to be used to increase awareness and knowledge of water resources issues within the Elm Creek watershed. *In 2015 grant funding was awarded to the Minnesota Dragonfly Society to hold a two-day Advanced Odonata Nymph Identification Workshop at the Elm Creek Park Reserve. The Society also gave a free one-day Dragonfly 101 program to the general public at the Coon Rapids Dam Regional Park in partnership with Three Rivers Park District. (Appendix 9)*



- 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. *Staff continues to update the website, www.elmcreekwatershed.org.*

- Work in partnership with Hennepin County's agriculture specialist to help build relationships with the agricultural community in the watershed in order to encourage TMDL implementation. *The Commission will continue to seek opportunities to utilize the expertise of the ag*

specialist when reaching out to members of the agricultural community.

- Complete development of the Commission's Third Generation Watershed Management Plan. *The Commission adopted its Third Generation Plan on October 14, 2015, incorporating the 2015 revisions to Rule 8410 in its final draft.*
- Adopt a 2016 operating budget. *At its June 10, 2015 regular meeting, the Commission approved a 2016 operating budget totaling \$447,651. This budget is based on the projected costs found in the Implementation Plan section of the Commission's Third Generation Watershed Management Plan. To fund the budget the Commission approved an increase in member assessments to \$215,360, a 3.04% increase over the 2015 assessments.*

In addition, the Commission projected \$105,000 as proceeds from application fees, \$6,000 from partnership revenue, \$1,500 from forfeited WCA sureties, and \$80 from interest income. \$137,500 is projected as project review-related expense; \$47,845 for water monitoring; \$30,000 for education; \$86,000 for special projects, studies and subwatershed assessments; and \$146,306 for administration and general operating expenses.

The Commission also designated \$250,000 as its share of the Plymouth Elm Creek Restoration CIP Project. A Hennepin County ad valorem levy will be used to fund the Commission's share of this \$1,086,000 project.

- Publish an annual activities report summarizing the Commission's yearly activities and financial reporting. *The 2014 Annual Activity Report was accepted by the Commission on April 8, 2015, and circulated as prescribed in MN Rules Chapter 8410.0150.*

Financial Reporting

Appendix 10 includes the Commission's approved budget for 2015. 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 2015 assessments to the members are also found in *Appendix 10*.

Of the \$388,380 operating budget for 2015 approved by the Elm Creek Watershed Management Commission on June 11, 2014, revenue of \$81,500 was projected as proceeds from application fees, \$5,500 from partnership revenue, and \$100 from interest income, resulting in assessments to members totaling \$209,000. \$89,280 was projected as coming from reserves. \$60,000 was set aside for WRAPS-related expenses; however, it was not anticipated the entire amount would be expended. The Commission will reimburse Three Rivers Park District \$82,648 to complete the TMDL/WRAPS. Grant revenue from the MPCA totaling \$82,648 will offset this latter expense. \$10,000 was also set aside to complete the Third Generation Management Plan and an additional \$37,000 was designated for special projects and capital improvement studies.

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 2015 Audit Report prepared by Johnson & Company, Ltd., Certified Public Accountants, is also found in *Appendix 10*. 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 the WMWA *Pledge to Plant for Clean Water and Pollinators Project*.

Assigned – amounts the Commission intends to use for specific purposes.

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

Amounts paid by the Commission per the 2015 Audit are as follows:

General engineering	\$123,455
General administration	82,929
Education	21,936
Programs	39,347
Projects	<u>55,696</u>
Total	\$323,363

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.

2016 Work Plan

The Third Generation Plan adopted by the Commission in 2015 identifies issues, priorities and

- Continue to review local development/ redevelopment plans for conformance with the standards outlined in the Commission's Third Generation Management Plan.
- Serve as the local government unit (LGU) for administering the Wetland Conservation Act (WCA) for the cities of Champlin and Corcoran.

- Conduct lake and stream monitoring programs to track water quality and quantity conditions. The Commission will conduct extensive stream monitoring at three sites and a DO longitudinal survey of one stream in cooperation with Three Rivers Park District.
- Fund the monitoring of three lakes 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 the River Watch program with six sites in 2016.
- Participate in the MN Wetland Health Evaluation Program (WHEP) with four wetlands in 2016.
- Assist member communities in preparing and adopting their local water management plans.
- Complete informal and formal reviews of the Elm Creek TMDL and WRAPs reports. Obtain USEPA approval of the TMDL document and MPCA approval of the WRAPs report.
- Use results of WRAPS study to establish priority areas and complete subwatershed assessments to identify specific BMPs that feasibly and cost-effectively reduce nutrient and sediment loading to impaired water resources
- Continue as a member of the West Metro Water Alliance (WMWA). Continue to support the WMWA Educator Program and contribute to its e-newsletter *Water Links*.
- Promote the Watershed PREP program to reach every 4th grade science class in the watershed. Participate in the *Pledge to Plant for Clean Water and Pollinators* project.
 - Participate as an exhibitor in the Plymouth Home Expo.
 - Continue as a member of Blue Thumb and WaterShed Partners and a partner in the NEMO (Nonpoint Education for Municipal Officials) program.
 - Co-sponsor Rain Garden Workshops in conjunction with the Commission's Education and Public Outreach Program.
 - Partner with Hennepin County's agriculture specialist to help build relationships with the agricultural community in the watershed in order to encourage TMDL implementation.
 - 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.
 - Seek grant funding to assist with the costs associated with projects identified on the Commission's CIP.
 - Continue to support City-sponsored projects using the ad valorem funding mechanism.
 - Adopt a 2017 operating budget.
 - Transfer Commission's current website to new mobile-ready platform. Continue to populate and maintain the website to provide news to residents, students, developers and other individuals interested in the water resources of the watershed.
 - Publish an annual activities report summarizing the Commission's yearly activities and financial reporting.



Appendix