Elm Creek
Watershed Management Commission

2016 Annual Activity Report

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Appendices

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

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James Fallon, U S Geological Service (USGS)
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Cover photograph:
River Watch 2016
Wayzata High School Students

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 2016.

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 2016. 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 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.

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%
Total	130.61	100.0%

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 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 2016. A summary of the Plan's issues, priorities, goals, implementation strategies, and Rules and Standards are shown in *Appendix 2.*

Local Plans

Revisions to Minnesota Rules 8410 adopted in 2015 include significant changes in the timing of local water plan revisions. Per 8410.0105 subparagraph 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 its local water plan.
- Prior to adoption, a municipality must prepare its local water plan, distribute it for comment, and have it approved by the organization with jurisdiction in the municipality.
- The next local comprehensive plans are due December 31, 2018. All cities and towns in the seven-county metropolitan area must complete and adopt their local water plans between January 1, 2017 and December 31, 2018. Thereafter, add ten years to each of the previous dates.
- Local water plans may be updated more frequently by a municipality at its discretion.

2016 Work Plan in Review

The Elm Creek Commission identified the following activities to be undertaken in 2016. 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. *Fifty-two projects were reviewed by the Commission in 2016. 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 3, 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 continues to serve as the LGU for Champlin and Corcoran. In 2016 Technical staff assisted approximately 50 landowners/agency/developer contacts with wetland-related questions. On behalf of the Commission they reviewed the following types of wetland applications: six wetland boundary/type; three no-loss; two exemptions; three sequencing; and three wetland replacement plans. Wetland impacts totaled 67,809 SF; wetland replacement totaled 204,419 SF. Two WCA violations were investigated and resolved; two others were determined to not be WCA/Commission violations. The Commission was involved in 17 Technical Evaluation Panels (TEPs) throughout the watershed. The Elm Creek Commission does not have a wetland banking program.*

- Complete informal and formal reviews of the Elm Creek Watershed-wide TMDL and WRAPS reports. Obtain US EPA approval of the TMDL document and MPCA approval of the WRAPS report. *At year-end the MPCA had completed its informal review of both the TMDL and the WRAPS. The TMDL was still being reviewed by the EPA. The informal Stakeholder review will begin early in 2017 and extend for a period of 30 days. Both documents will be available on the MPCA and Commission websites in May 2017.*

- 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. *The Commission submitted a grant application to the Clean Water Fund (CWF) Accelerated Implementation Program to complete a subwatershed assessment in four key subwatersheds in the headwaters of Rush Creek and North Fork Rush Creek. Much of the land in those subwatersheds is in the City of Corcoran. The Commission was awarded a $50,280 grant to complete this project.*

- 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 Ag Specialist hosted on-site workshops in Corcoran and Dayton. (Appendix 9)*

- Develop a 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. *This task is being undertaken by the Technical Advisory Committee and is a priority in 2017.*

- Promote river stewardship through the River Watch program. *Three sites were monitored in the Elm Creek watershed in 2016. Appendix 4 contains more information about the River Watch program and the 2016 results.*

- Seek grant funding to assist with the costs associated with projects identified on the Commission's CIP. *Five CIP projects, the Fox Creek Streambank Stabilization Project in Rogers; the Mississippi River Shoreline Repair and Stabilization and the Elm Creek Dam at the Mill Pond projects in Champlin; and the Rush Creek Main Stem Restoration and the Fish Lake Alum Treatment Phase 1 projects in Maple Grove were certified through the ad valorem taxing process for funding by Hennepin County. (Appendix 5)*

In conjunction with this effort, the Commission adopted two resolutions in 2016. Resolution 2016-01 adopted a Minor Amendment to the Third Generation Watershed Management Plan to add five projects to the Commission's CIP, revise the scope of one project, and shift the timing of five others on

the CIP. Resolution 2016-02 ordered the five projects certified above, designated the members responsible for construction, and designated the Commission cost-share funding.

- Continue to support City-sponsored projects as they are identified. *The Commission continues to identify projects on its CIP for funding either though the Commission's CIP budget or grant funding. In 2016 the Commission applied for and received a Board of Water and Soil Resources (BWSR) Competitive Grant (Projects and Practices) in the amount of $200,000 for the Internal Phosphorus Loading Control Project on Fish Lake and a BWSR Competitive Grant (Accelerated Implementation Grant) in the amount of $50,280 for the Rush Creek Headwaters Subwatershed Assessment Project.*

- 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 6. The Commission also funded the monitoring of Jubert and Cowley lakes through Metropolitan Council's Citizen Assisted Monitoring Program (CAMP). Preliminary CAMP results are also included in Appendix 6. Final monitoring results for these lakes will be included in the 2016 CAMP report, available in summer 2017. 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 7.*

- 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 2016. See Appendix 7 for monitoring results.*

- Participate in the Minnesota Wetland Health Evaluation Program (WHEP)**.** *The four wetlands monitored in 2016 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 2016 findings are found in Appendix 8.*

- 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. *This program was discontinued by the County in 2016.*

- 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. 878 students in nine 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 2016 the Commission also collaborated on the Pledge to Plant for Pollinators and Clean Water Project, *creation of a new WMWA website, and addition of a Facebook page. The* 2016 Annual Report *describing all of WMWA's activities is found in (Appendix 9)*

- Participate as an exhibitor at Plymouth's Home Expo. *Volunteers from the Commission "manned"*

a booth at the Expo, April 8-9, 2016, alongside other watershed organizations to promote water quality initiatives.

- Continue as a member of WaterShed Partners and a partner in the NEMO (Nonpoint Education for Municipal Officials) program. *The Commission continues its membership in these organizations with financial support and in-kind contributions.*
- Co-sponsor Green Yard Workshops in conjunction with the Commission's Education and Public Outreach Program. *The cities of Champlin and Plymouth hosted workshops in 2016.*
- Assist member communities in preparing and adopting their local water management plans. *No local plans were submitted for review in 2016. It is anticipated most communities will submit their local plans for approval in 2017.*
- Adopt a 2017 operating budget. *At its June 8, 2016 regular meeting, the Commission approved a 2017 operating budget totaling $421,614, with assessments to the member cities totaling $219,700, a 2.02% increase over the 2016 assessments. (Appendix 10)*
- Continue to populate and maintain the Commission's website www.elmcreekwatershed.org to provide news to residents of the watershed. *In 2016 the Commission transferred its current website to a new mobile-ready platform and continued 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. *The 2015 Annual Activity Report was accepted by the Commission on April 13, 2016, and circulated as prescribed in MN Rules Chapter 8410.0150.*

Financial Reporting

Appendix 10 includes the Commission's approved budget for 2016. 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 2016 assessments to the members are also found in *Appendix 10.*

Of the $447,651 operating budget for 2016 approved by the Elm Creek Watershed Management Commission on June 10, 2015, revenue of $105,000 was projected as proceeds from application fees, $6,000 from partnership revenue, and $80 from interest income, resulting in assessments to members totaling $215,360. $119,711 was projected as coming from reserves.

$137,500 was projected as project review-related expense; $47,845 for water monitoring; $30,000 for education; and $86,000 for special projects, studies and subwatershed assessments. $24,406 was set aside for WRAPS-related expenses; however, it was anticipated that entire amount would not be expended. $121,900 was budgeted for administration, planning, 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.

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 2016 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 residual funds carried over from one year to the next for Studies, Project Identification and Subwatershed Assessments.

Assigned – amounts the Commission intends to use for specific purposes. Most line items in the Commission's Operating Budget fall under this category.

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

Amounts paid by the Commission per the preliminary 2016 Audit are as follows:

General engineering	99,910
General administration	111,434
Education	18,124
Programs	34,785
Projects	5,032
Capital projects	252,642
Total	$531,927

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.

The Commission's final 2016 Audit Report will be transmitted to the Minnesota State Auditor and the Board of Water and Soil Resources (BWSR) by June 30, 2017, and uploaded to the Commission's website by that date.

2017 Work Plan

Following is the projected work plan for 2017:

■ Technical ■ Water Monitoring ■ Education ■ Administrative

■ Continue to review local development/redevelopment plans for conformance with the standards outlined in the Commission's Third Generation Management Plan. Review the current project review fee

schedule for fiscal conformity.

- 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 undertake stream monitoring (continuous flow only) at monitoring sites DC on Diamond Creek, RT on Rush Creek main stem, and EC77 on Elm Creek above Rice Lake, and conduct a dissolved oxygen (DO) longitudinal survey for Diamond Creek. In addition, four sentinel lakes (Fish, Weaver, Diamond, and Rice Lake-main basin) and one additional water body (the Champlin Mill Pond) will be monitored.

  Longitudinal surveys in upper Rush Creek will be conducted at 4-5 locations and at different flow conditions to support the Upper Rush Creek subwatershed assessment. All monitoring outlined in this section will be conducted in cooperation with Three Rivers Park District.

- Fund the monitoring of two lakes through Metropolitan Council's Citizen Assisted Monitoring Program (CAMP). Lake Jubert and one additional lake will be monitored in 2017.

- 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 2017.

- Participate in the Minnesota Wetland Health Evaluation Program (WHEP) with four wetlands in 2017.

- Assist member communities in preparing and adopting their local water management plans. Advise the member cities of the revised requirements under Rule 8410.0160, subp. 6, regarding local water plans and local comprehensive plans.

- Conduct the biennial solicitation of interest proposals for administrative, legal, technical and wetland consultants as required under Minnesota Statutes, section 103B.227, subdivision 5.

- Complete both informal and formal reviews of the Elm Creek Watershed-wide TMDL and WRAPs reports and obtain MPCA and USEPA approval of the TMDL document and MPCA approval of the WRAPs report. The informal Stakeholder 30-day review will begin in early 2017. It is anticipated these reviews will be completed in 2017.

- 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 Pollinators and Clean Water* project. Conduct native plant sales at various city events around the watershed including the Maple Grove Farmers Market.

- Participate as an exhibitor in the Plymouth Home Expo. The Commission will share booth space with the other members of WMWA at the Expo, April 7-8, 2017.

- Continue as a member of WaterShed Partners and a partner in the NEMO (Nonpoint Education for Municipal Officials) program.

- Co-sponsor Green Yard Workshops in conjunction with the Commission's Education and Public Outreach Program. Two Metro Blooms workshops are scheduled in the Elm Creek watershed in 2017 – April 6 at Champlin City Hall and April 11 at St. Barnabas Lutheran Church in Plymouth. The 2017 workshops are entitled, "Learn How to Create a Weather Resilient Yard."

- 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.

- Partner with Hennepin County's Agriculture Specialist to help build relationships with the agricultural community in the watershed in order to encourage TMDL implementation. Last year Hennepin County hired a Rural Conservation Specialist. The Commission has obtained MN Buffer Law updates from her work and will encourage and assist, if necessary, with the law's implementation throughout the watershed in 2017. Additional contacts and assistance by the Extension Specialist with rural landowners will also continue in 2017.

- 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. The Technical Advisory Committee is continuing to work on developing this ordinance.

- Seek grant funding to assist with the costs associated with projects identified on the Commission's CIP. A call for CIPs went out to the cities in December 2016. Proposed CIPs and CIP updates will be reviewed for inclusion on the Commission's CIP by the Technical Advisory Committee (TAC) at their March meeting. The TAC's recommendations will be forwarded to the Commission. This activity will most likely require a Minor Plan Amendment.

- Undertake the Internal Phosphorus Loading Control Project on Fish Lake. This project was awarded a Board of Water and Soil Resources (BWSR) Competitive Grant (Projects and Practices) in the amount of $200,000 in December 2016.

- Undertake the Rush Creek Headwaters Subwatershed Assessment Project. This project was also awarded a BWSR Competitive Grant (Accelerated Implementation Grant) in the amount of $50,280 in December 2016.

- Continue to support City-sponsored projects using the ad valorem funding mechanism. A call for CIPs went out to the cities in December 2016. Proposed CIPs and CIP updates will be considered for ad valorem funding recommendation by the Technical Advisory Committee at their April meeting.

- Adopt a 2018 operating budget.

- 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. In 2016 the Commission's website was transferred to a new mobile-ready platform. The Commission will consider adding Facebook as a media opportunity.

- Publish an annual activities report summarizing the Commission's yearly activities and financial reporting. The 2016 Annual Activity Report will be available at the Commission's April 12, 2017 meeting.

Appendix

2016 Commissioners

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

REPRESENTING	NAME/POSITION	ADDRESS	TELEPHONE/EMAIL
Champlin	Bill Walraven Secretary	216 Lowell Road Champlin, MN 55316	763.421.3206 traderstec@aol.com
	Gerry Butcher Alternate	11467 Preserve Lane N Champlin, MN 55316	763.557.1451 gerrybutcher671@yahoo.com
Corcoran	Jon Bottema Commissioner	10500 Trail Haven Road Corcoran, MN 55374	612.247.7328 jonathan.bottema@ubs.com
	Cindy Patnode Alternate	22802 County Road 50 Corcoran, MN 55340	612.483.8569 dcpatnode@aol.com
Dayton	Doug Baines Chair	13000 Overlook Road Dayton, MN 55327	763.323.9506 dougbaines@aol.com
	Tim McNeil Alternate	12260 S. Diamond Lake Road Dayton, MN 55327	612.730.9312 tim@timmcneil.com
Maple Grove	Joe Trainor Commissioner	16075 Territorial Road Maple Grove, MN 55369-	763.420.4645 joe.trainor@meritain.com
	Bill Kidder Alternate	9221 Cheshire Lane North Maple Grove, MN 55369	763.568.2992 o2bonh20@gmail.com
Medina	Elizabeth Weir Vice Chair	1262 Hunter Drive Wayzata, MN 55391	763.473.3226 lizvweir@gmail.com
	Victoria Reid Alternate	4405 Shorewood Trail Medina, MN 55340	763.843.5774 vreid7@gmail.com
Plymouth	Fred Moore Treasurer	1820 Ives Lane Plymouth, MN 55441	612.269.2088 fred@emailmoore.net
	Jesse Larson Alternate	4245 Goldenrod Lane North Plymouth, MN 55441	612.860.2256 jesse.larson@state.mn.us
Rogers	Kevin Jullie Commissioner	13315 Oakwood Drive Rogers, MN 55374	763.428.9160 kjullie@srfconsulting.com
	Vacant Alternate		

2016 Technical Advisory Committee

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

REPRESENTING	NAME	ADDRESS	TELEPHONE/EMAIL
Champlin	Todd Tuominen	City of Champlin 11955 Champlin Drive Champlin, MN 55316	763.923.7120 ttuominen@ci.champlin.mn.us
Corcoran	Susan Nelson	Wenck Associates 1800 Pioneer Creek Center Maple Plain, MN 55359	763.479.5131 snelson@wenck.com
Dayton	Jason Quisberg	Wenck Associates 7500 Highway 55 Ste 300 Golden Valley, MN 55427	763.252.6873 jquisberg@wenck.com
Maple Grove	Rick Lestina	City of Maple Grove 12800 Arbor Lakes Parkway Maple Grove, MN 55313	763.494.6354 rlestina@ci.maple-grove.mn.us
Medina	Kaci Fisher	Hakanson-Anderson 3601 Thurston Avenue Anoka, MN 55303	763.852.0496 KaciF@HAA-inc.com
Plymouth	Ben Scharenbroich	City of Plymouth 3400 Plymouth Boulevard Plymouth, MN 55447	763.509.5527 bscharenbroich@plymouthmn.gov
Rogers	Jennifer Edison	WSB Associates 701 Xenia Avenue S. Suite 300 Minneapolis, MN 55416	763.287.7182 jedison@wsbeng.com
Hennepin County Department of Energy and Environment	Ali Durgunoğlu James Kujawa	701 Fourth Avenue S. Suite 700 Minneapolis, MN 55415-1600	612.596.1171 Ali.Durgunoglu@hennepin.us 612.348.7338 James.Kujawa@hennepin.us
Three Rivers Park District	Rich Brasch	12615 County Road 9 Plymouth, MN 55441	763.694.2061 richard.brasch@threeriversparkdistrict.org

2016 Staff and Consultants

The required biennial solicitation for interest proposals for administrative, legal, technical and wetland consulting services was published in the January 26, 2015 edition of the State Register. At their March 11, 2015 meeting the Commission voted to retain the following consultants for 2015-2016. The Commission has no employees.

	NAME/POSITION	ADDRESS	TELEPHONE/EMAIL
Technical Services	Ali Durgunoglu	Hennepin County Energy and Environment 701 Fourth Avenue S. Suite 700 Minneapolis, MN 55415	612.596.1171 Ali.Durgunoglu@hennepin.us
	James Kujawa		612.348.7338 James.Kujawa@hennepin.us
	Jeff Weiss	Barr Engineering 4700 West 77th Street Minneapolis, MN 55435	952.832.2706 jweiss@barr.com
Legal Services	Joel Jamnik	Campbell Knutson Grand Oak Office Center I 860 Blue Gentian Road #290 Eagan, MN 55121	651.645.5000 jjamnik@ck-law.com
Administrative Services	Judie Anderson	JASS 3235 Fernbrook Lane Plymouth, MN 55447	763.553.1144 judie@jass.biz
	Amy Juntunen		763.553.1144 amy@jass.biz

Third Generation Watershed Management Plan

The Elm Creek Watershed Management Commission's Third Generation Watershed Management 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-wide Total Maximum Daily Load study (TMDL) and Watershed Restoration and Protection Strategy study (WRAPS), completed between 2009 and 2016. A summary of the Plan's issues, priorities, goals, and implementation strategies are outlined below.

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

Priorities

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

- Implement priority projects, 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; 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 and were adopted in advance of the Third Generation Plan, effective January 1, 2015.

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

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

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

Monitoring Program

The monitoring program continues the partnership with 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), NEMO (Nonpoint Education for Municipal Officials), and WaterShed Partners.

Other Activities

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

WRAPS Implementation

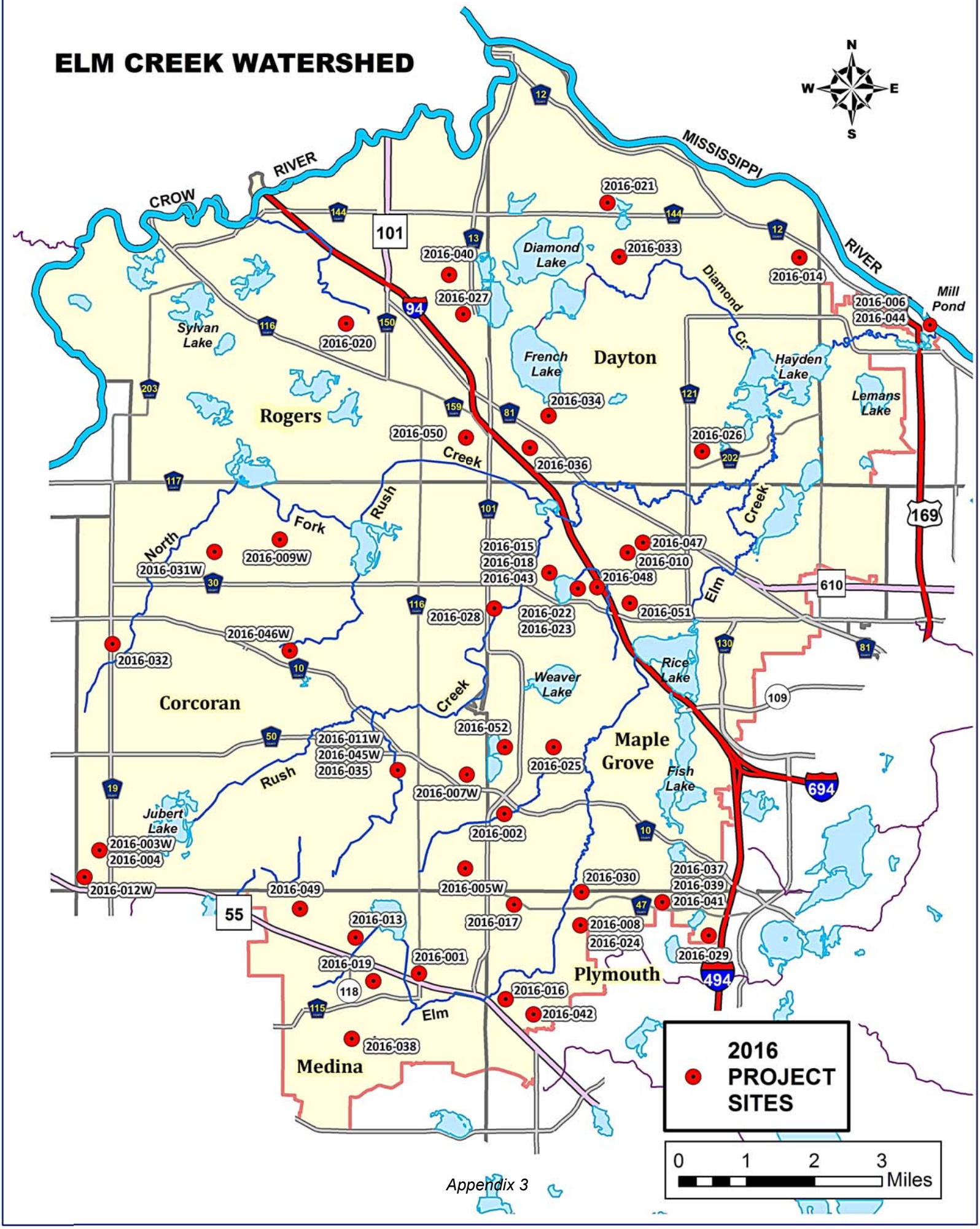
The Plan includes key findings and actions identified in the Elm Creek Watershed Restoration and Protection Strategies (WRAPS) study, which includes Total Maximum Daily Loads (TMDLs) for the impaired waters and improvement and protection strategies and activities for all waters.

2016 Project Reviews

			Reviewed for					Rate Control (cfs) (pre- and post-development)			Net Change Nutrient Control (lbs./yr) (pre- and post-development)		Net change			
Project No.	Project Name	City	Erosion Control	Stormwater	Floodplain	Wetlands	Buffers	2-yr Pre | Post	10-yr Pre | Post	100-yr Pre | Post	TP load #/yr Pre-w/o BMPs | Post-w/ BMPs	TSS load #/yr Pre-w/o BMPs | Post-w/ BMPs	Runoff Volume (af / yr)	Abstraction (cfs)	Filtration (cfs)	Biofiltration (cfs)
2016-001	County State Aid Highway 115/County Road 116	Medina	X	X				27.5 | 27.7	53.6 | 53.3	114.1 | 113.4	-0.9	-592	2.1			
2016-002	The Markets at Rush Creek	MG	X	X	X		X	24.5 | 9.7	52.0 |30.4	113.4 | 108.0	-9.4	-4,622		-1,025		73,469
2016-003W	Park Place Storage	Corcoran				X										
2016-004	Park Place Storage	Corcoran	X	X		X		13.4 | 11.7	37.0 | 22.5	137.3 | 62.4	-1.6	-7,128			N/A	41,472
2016-005W	Ravinia Wetland Bank Plan	Corcoran			X											
2016-006	Miss River Shoreline Repair	Champlin	X				X	stormwater management does not require review								
2016-007W	Beacon Academy	Corcoran				X										
2016-008	Northwest Greenway Trail Phase II	Plymouth	X	X	X		X	Linear project, did not create more than one ace new impervious cover. No review for rate, nutrient and volume control.								
2016-009W	Chris Butek Pond Excavation	Corcoran				X										
2016-010	Park Nicollet at The Grove	MG	X	X				Reviewed for compliance with Project Review 2005-027 and Commission's Second Generation Plan								
2016-011W	2016 Downtown Corcoran Utility and Street Improvements	Corcoran				X										
2016-012W	B. R. Corcoran Community Solar Gardens	Corcoran				X										
2016-013	Arrowhead Drive Trail	Medina	X		X		X	Linear project, did not create more than one ace new impervious cover. No review for rate, nutrient and volume control.								
2016-014	Balsam Apartments	Dayton	X	X				4.37 | .23	| 1.94	9.37 | 9.08	-0.69	-125	-0.5	5,780		
2016-015	Lawndale Lane Trail Improvements	MG	X	X	X		X	Linear project, did not create more than one ace new impervious cover. No review for rate, nutrient and volume control.								
2016-016	Wayzata High School Varsity Baseball Improvements	Plymouth	X	X			X	Project decreased impervious cover. No review for stormwater - rate, nutrient and volume.								
2016-017	The Preserve at Meadow Ridge	Plymouth	X	X	X		X	5.3 | 4.8	11.8 | 10.2	28.0 | 23.6	-1.54	-508	-3.4	0		
2016-018	Cambridge Park	MG	X	X			X	9.4 | 7.3	19.3 | 16.2	42.4 | 41.8	-1.2	21	--		523	
2016-019	Just for Kix	Medina	X	X	X		X	2.83 | 1.26	5.44 | 4.39	11.38 | 7.60	-0.61	-110	-2.3	4,161		
2016-020	Ryan Meadows	Rogers	X	X			X	18.8 | 15.7	35.6 | 30.6	72.0 | 63.3	-1.4	-18,860	-6.7		1,563	
2016-021	Diamond View Estates	Dayton	X	X			X	12.2 | 6.4	30.1 | 27.4	90.3 | 89.5	-2.1	-1,995	-23.3	38,006		
2016-022	AutoZone Store #6379	MG	X	X			X	1.87 | .64	4.16 | 1.66	9.71 | 9.57	-0.73	-172	-0.55			
2016-023	Tricare	MG						Project denied. Constructed prior to Commission review.								
2016-024	Dunkirk Gateway Development	Plymouth	X	X			X	13.5 | 7.4	31.1 | 16.8	75.2 | 44.5	-3.7	-1,126	5.7			
2016-025	Killarney Glenn 2nd Addition	MG	X	X				9.6 | 4.3	18.1 | 12.3	38.0 | 24.0	-1.38	-355	-2.0	16.500		
2016-026	Faithbrook Church	Dayton	X	X			X	20.03 | 14.08	37.87 | 27.9	78.51 | 57.90	-8.45	-6,743	-1.9	48,771.38		
2016-027	Rogers Drive / Brockton Lane Intersection Improvements	Rogers	X					Linear project, did not create more than one ace new impervious cover. No review for rate, nutrient and volume control.								

2016 Project Reviews

			Reviewed for					Rate Control (cfs) (pre- and post-development)			Net Change Nutrient Control (lbs./yr) (pre- and post-development)		Net change			
Project No.	Project Name	City	Erosion Control	Stormwater	Floodplain	Wetlands	Buffers	2-yr Pre | Post	10-yr Pre | Post	100-yr Pre | Post	TP load #/yr Pre-w/o BMPs | Post-w/ BMPs	TSS load #/yr Pre-w/o BMPs | Post-w/ BMPs	Runoff Volume (af / yr)	Abstraction (cfs)	Filtration (cfs)	Biofiltration (cfs)
2016-028	Ploceus Meadows	MG	X	X			X	3.99 | 3.75	9.18 | 7.40	22.33 | 17.02	-0.8	-53.7	1.6		-4,375	
2016-029	Camelot Nine at Begin, Plymouth	Plymouth	X	X			X	EC 16.2 | 13.0 SC 6.1 | 2.3	EC 57.5 | 33.3 SC 15.1 | 5.1	EC 151.4 | 63.3 SC 26.4 | 13.9	-2.2	-12,784.3	-16.0	1,525		
2016-030	Elm Creek Meadows	Plymouth	X	X	X		X	23 | 13	52 | 28	117 | 78	-0.6	-836	10.4			
2016-031W	9735 Garden Lane no-loss exemption	Corcoran				X										
2016-032	CSAH 19 Cross Culvert	Corcoran		X												
2016-033	Dayton Public Works Facility Site Improvements	Dayton	X	X			X	12.02 | 4.9	27.84 | 11.8	65.79 | 30.05	-13.19	-5,527	-8.2	14,670		
2016-034	French Lake Golf Course Industrial Project AUAR	Dayton	Provided comments													
2016-035W	20070 Larkin Road (Wetland Violation	Corcoran				X										
2016-036	K-Manufacturing 3rd Addition	Dayton						Falls below Commission threshold for review.								
2016-037	Lanewood Estates	Plymouth	X	X			X	5.4 | 3.2	11.5 | 6.7	24.9 | 20.6	-0.4	-186	N/A	N/A		
2016-038	AutoMotor Plex-Medina	Medina	X	X			X	29.53 | 22.84	55.28 | 42.28	143.62 | 97.21	-3.0	-609	N/A	N/A		
2016-039	The Fields at Meadow Ridge, formerly SANDS Parcel	Plymouth	X	X			X	25.0 | 15.8	50.6 | 37.5	102.4 | 66.4	-2.9	-1,183	N/A	N/A		
2016-040	Kinghorn 4th Addition	Rogers	X	X			X	29.05 | 3.6	49.27 | 5.62	90.95 | 14.26	-3,168	-5.94				
2016-041	Meadow Ridge Ponds (Bartus)	Plymouth	X	X			X	6.7 | 2.5	14.0 | 4.9	29.5 | 18.0						
2016-042	Cherrywood of Plymouth	Plymouth	X	X				9.8 | 3.3	18.7 | 9.7	38.9 | 18	0.0	-47	N/A	N/A		
2016-043	Lawndale Lane Improvements	MG	X	X	X			7.1 |4.4	12.0 | 7.3	23.4 | 16.7	-0.8 MIDS -3.8 P8	-478 MIDS -1,285 P8		not feasible		
2016-044W	Highway 169 Reconstruction - Wetland Delineation	Champlin	X	X		X										
2016-045W	Brother's Mini Storage	Corcoran				X										
2016-046W	Combine Lots: 8920 Foxline Drive and 8909 Trail Haven Road	Corcoran				X										
2016-047	Hy-Vee Maple Grove #1 (Maple Grove North)	MG	X	X			X	13 | 10	33.3 | 25	50.5 | 39.6	-2.6	-230		1.11 abs volume	1.29 filtered vol	
2016-048	Menards Yard Expansion	MG	Project was withdrawn.													
2016-049	Concept Plan Review for Medina Senior Living (Preliminary)	Medina	No review													
2016-050	Southeast Rogers Area AUAR	Rogers	Provided comments													
2016-051	Grove Circle Medical Office Building	MG	X	X				Reviewed for compliance with Project Review 2005-027 and Commission's Second Generation Plan								
2016-052	The Woods at Rush Creek	MG	X	X	X		X	27.3 | 9.3	59.9 | 26.5	130.1 | 60.1	-1.7	-800	23.5	38,532 req abs	45,230 filtered vol	


ELM CREEK WATERSHED
N
W
E
S
MISSISSIPPI RIVER
CROW RIVER
Mill Pond
Diamond Lake
Diamond Cr.
Hayden Lake
Lemans Lake
French Lake
Sylvan Lake
Rogers
Dayton
Corcoran
Maple Grove
Plymouth
Medina
Jubert Lake
Weaver Lake
Rice Lake
Fish Lake
Rush Creek
North Fork Rush Creek
Elm Creek
2016-021
2016-033
2016-014
2016-040
2016-027
2016-006
2016-044
2016-020
2016-034
2016-026
2016-050
2016-036
2016-009W
2016-031W
2016-015
2016-018
2016-043
2016-047
2016-010
2016-048
2016-051
2016-028
2016-022
2016-023
2016-046W
2016-032
2016-052
2016-011W
2016-045W
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2016-004
2016-012W
2016-049
2016-005W
2016-030
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2016-039
2016-041
2016-013
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2016-008
2016-024
2016-029
2016-001
2016-019
2016-016
2016-042
2016-038
101
94
169
610
494
694
55
2016 PROJECT SITES
0 1 2 3 Miles

2016 RIVER WATCH

INTRODUCTION

The River Watch Program has provided hands-on environmental education opportunities for students throughout Hennepin County since 1995. Every spring and fall, students and teachers venture into Hennepin County streams with waders securely fastened and dip nets in hand to collect aquatic macroinvertebrates, or bottom-dwelling, spineless organisms including mayflies, stoneflies, snails and beetles. Macroinvertebrates are influenced by physical and chemical properties of streams, so monitoring those organisms helps assess water quality. River Watch is an eye-opening experience for all participants and the resulting data helps us understand the health of our streams.

In 2016, 16 stream stretches were monitored in the spring and/or fall. Data was gathered by more than 750 students from 32 classes and 15 schools, and students, teacher and chaperones donated more than 5,000 hours. Three sites were monitored by two classes in the Elm Creek watershed in 2016. Rush Creek at 101st Lane in Maple Grove was monitored by Kaleidoscope Charter School, where the students garnered a family biotic index (FBI) of 6.60 (fairly poor) as compared to 4.50 (good) in 2015. Elm Creek at Elm Creek Golf Club and at Peony Lane near Wayzata High School were monitored by WHS students. An FBI of 4.8 (good) was garnered at the high school site in 2015, in 2016 the site was under construction. An FBI of 6.1 (fair) was garnered at the Peony Lane site compared to 5.7 (fair) in 2015. Kaleidoscope students have participated in River Watch for 10 years, the WHS students for 18 years.

Data Analysis

The Family Biotic Index measures the overall community of invertebrates and their tolerance to pollution levels. The scale ranges from 0 to 10 with the lower values indicating high sensitivity to pollution and good water quality.

Hilsenhoff Family Biotic Index

Family Biotic Index	Water Quality	Degree of Organic Pollution
0-3.50	Excellent	No apparent organic pollution
3.51-4.50	Very Good	Possible slight organic pollution
4.51-5.50	Good	Some organic pollution probable
5.51-6.50	Fair	Fairly significant organic pollution likely
6.51-7.50	Fairly Poor	Substantial pollution likely
7.51-8.50	Poor	Very substantial pollution likely
8.51-10.0	Very Poor	Severe organic pollution likely

Historical Data

Historical data for the monitored sites is available on the River Watch interactive map. The map also includes site photos, information about watersheds and land cover data to help investigate how land use may impact water quality. The map is available at hennepin.us/riverwatch.

Legal Notice
NOTICE OF PUBLIC HEARING
ELM CREEK WATERSHED MANAGEMENT COMMISSION

TO WHOM IT MAY CONCERN:

Notice is hereby given that the Elm Creek Watershed Management Commission will meet at Maple Grove City Hall, 12800 Arbor Lakes Parkway, Maple Grove, MN, on Wednesday, September 14, 2016 at approximately 11:30 a.m., or as soon thereafter as the matter may be heard, for a public hearing on the following improvement:

PROJECT: 2016-01 Fox Creek Streambank Stabilization Phase 2
Location: 1300 LF of Fox Creek from Red Fox Road to Industrial Blvd., Rogers, MN.
Description: Correct stream bank erosion along multiple segments of Fox Creek
Cost: Estimated project cost is $321,250, with $240,938 borne by city in which project is located. The Elm Creek Commission proposes to fund a matching $80,312 by certifying this cost to Hennepin County for collection with the county ad valorem tax levy.

PROJECT: 2016-02 Mississippi River Shoreline Repair and Stabilizatio
Location: River shoreline between Mississippi Point Park and Steamboat Landing, Champlin, MN.
Description: Repair and stabilize river banks damaged by flood waters, armoring 1600 LF of shoreline with rip rap
Cost: Estimated project cost is $300,000, with $225,000 borne by city in which project is located. The Elm Creek Commission proposes to fund a matching $75,000 by certifying this cost to Hennepin County for collection with the county ad valorem tax levy.

PROJECT: 2016-03 Elm Creek Dam at the Mill Pond
Location: Elm Creek Dam and Bridge, Champlin, MN.
Description: Construction of new dam, spillway and flood reduction culvert.
Cost: Estimated project cost is $7,001,220, with $6,813,720 borne by FEMA, MN Dept. of Public Safety, MN Recover Funds, Hennepin County, and city in which project is located. The Elm Creek Commission proposes to fund a matching $187,500 by certifying this cost to Hennepin County for collection with the county ad valorem tax levy.

PROJECT: 2016-04 Rush Creek Main Stem Restoration
Location: On the border of Maple Grove and Dayton, west of Fernbrook Lane and north of Territorial Road, Maple Grove, MN.
Description: Stabilization of erosional sites in a 2900 LF portion of the creek
Cost: Estimated project cost is $300,000, with $225,000 borne by city in which project is located. The Elm Creek Commission proposes to fund a matching $75,000 by certifying this cost to Hennepin County for collection with the county ad valorem tax levy.

PROJECT: 2016-05 Fish Lake Alum Treatment Phase 1
Location: Fish :Lake, Maple Grove.
Description: Conduct whole lake alum treatment based on 2013 U of WI-Stout study
Cost: Estimated project cost is $300,000, with $225,000 borne by city in which project is located. The Elm Creek Commission proposes to fund a matching $75,000 by certifying this cost to Hennepin County for collection with the county ad valorem tax levy.

The Commission proposes to proceed under the authority granted by MN Statutes, Sec. 103B.251 to certify its share of the project cost to Hennepin County for payment by a tax levy on all taxable property located within the Elm Creek watershed. The watershed includes portions of the cities of Champlin, Corcoran, Dayton, Maple Grove, Medina, Plymouth, and Rogers. Maps of the watershed are available at the respective city halls or at www.elmcreekwatershed.org.

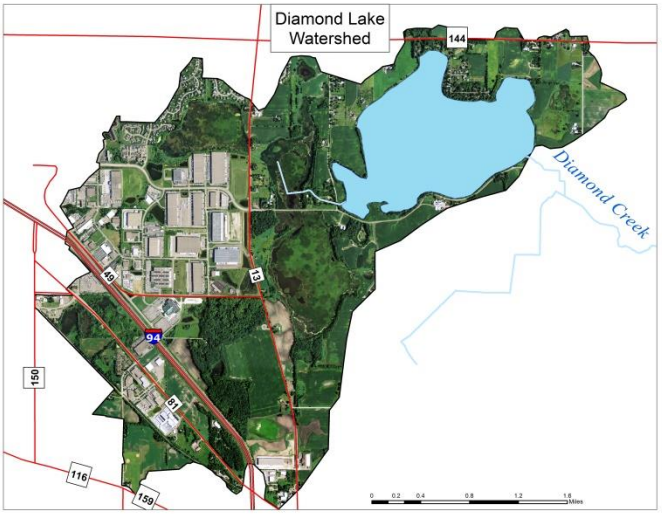
Persons who desire to be heard with reference to the proposed improvement will be heard at this meeting. Written comments may be submitted to Doug Baines, c/o JASS, 3235 Fernbrook Lane, Plymouth, MN 55447, or emailed to judie@jass.biz. Auxiliary aids for persons with handicaps are available upon request at least 7 days in advance. Please contact Judie Anderson at 763-553-1144 to make arrangements.

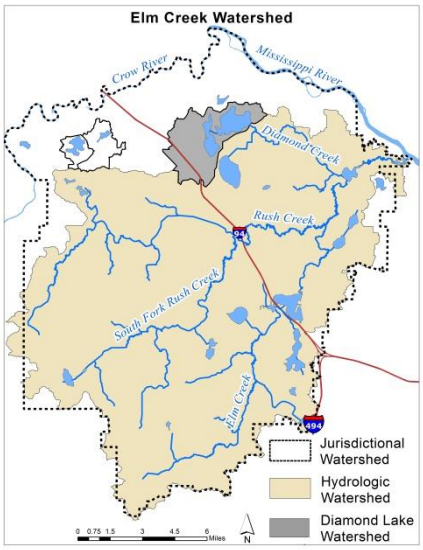
/s/ Doug Baines, Chair
By order of the Elm Creek Watershed Management Commission

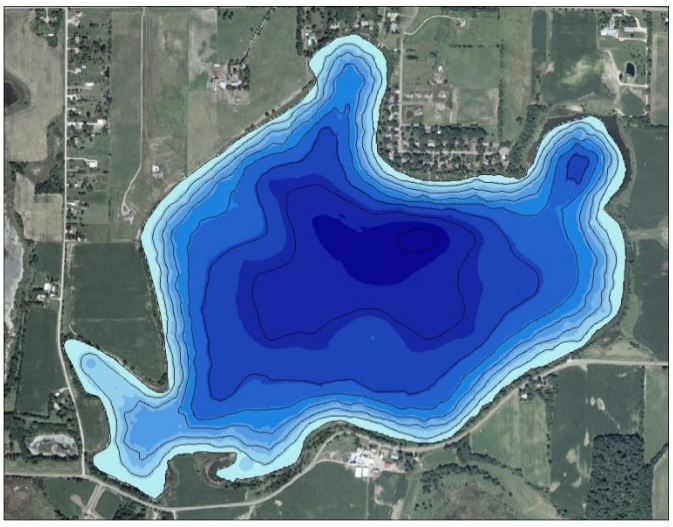
# # #

Published between August 15 and August 26, 2016 in the Osseo-Maple Grove Press

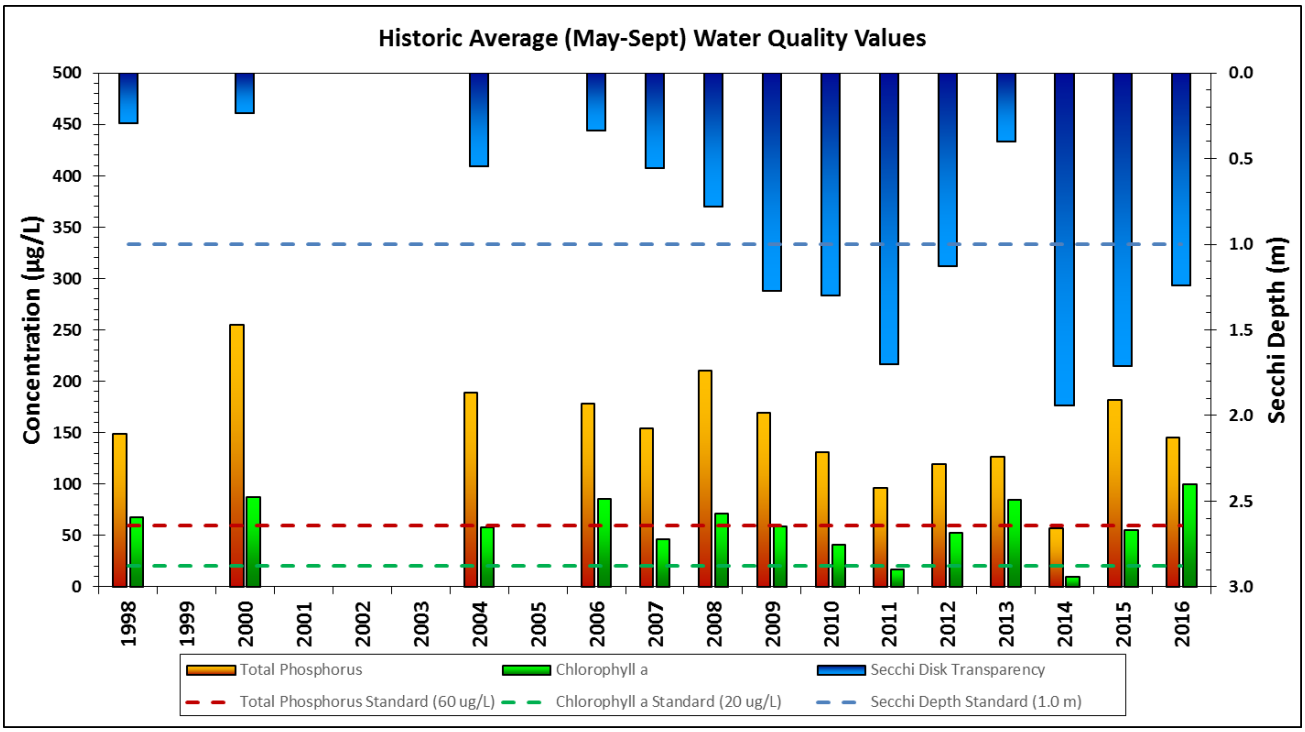
Diamond Lake





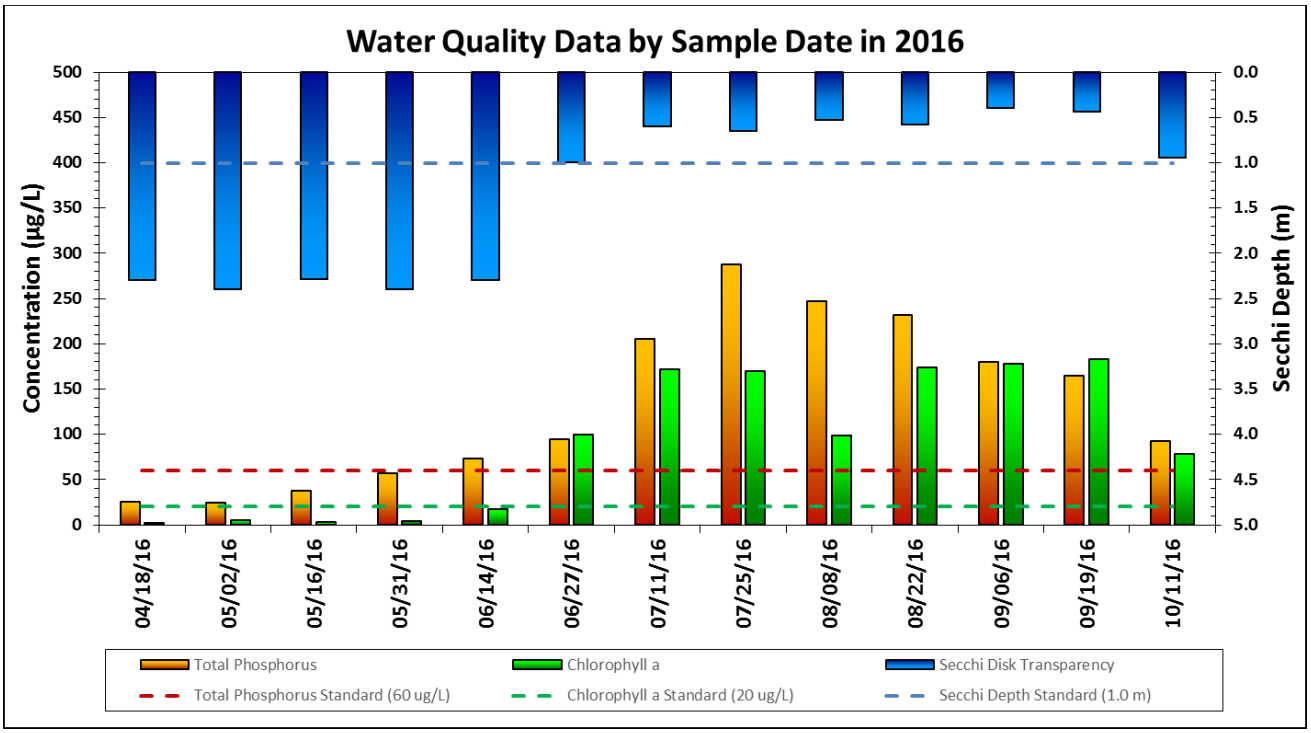


Lake and Watershed Characteristics	
DNR #	27012500
Watershed Area	2366.6 Acres
Lake Area	381.8 Acres
% Littoral Area	100%
Average Depth	3.97 ft
Maximum Depth	7.37 ft
Watershed/Lake Area Ratio	6.2 to 1
Hydraulic Residence Time	0.72 Years
Impairment	Excessive Nutrients 2006
Classification	Shallow Lake

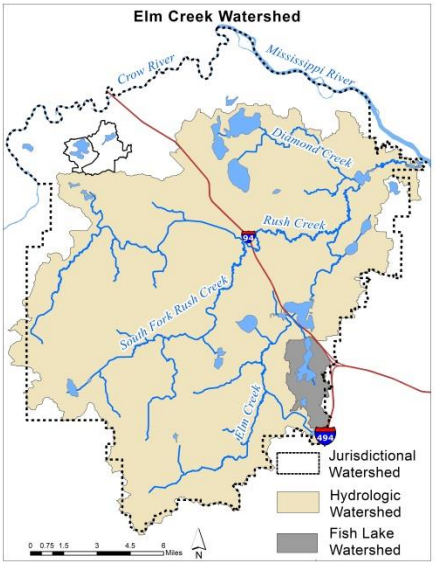


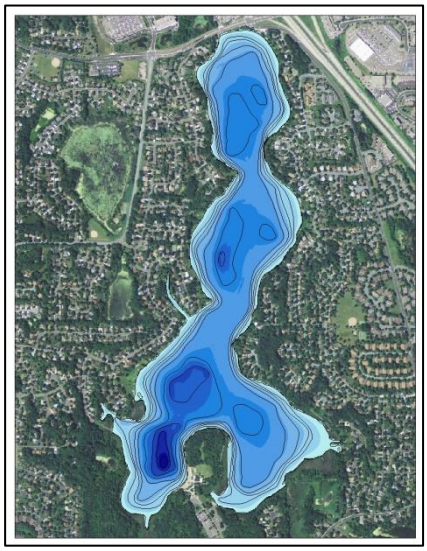
Diamond Lake Water Quality Report Card				
Year	**TP**	**Chl-a**	**Secchi**	**Avg Grade**
1998	D	D	F	D-
1999				
2000	F	F	F	F
2001				
2002				
2003				
2004	F	D	F	F
2005				
2006	F	F	F	F
2007	F	C	F	D-
2008	F	D	D	D-
2009	F	D	C	D
2010	D	C	C	C-
2011	D	B	C	C
2012	D	D	D	D
2013	D	F	F	F
2014	C	B	C	C+
2015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

Metropolitan Council Grading System (Osgood 1989)

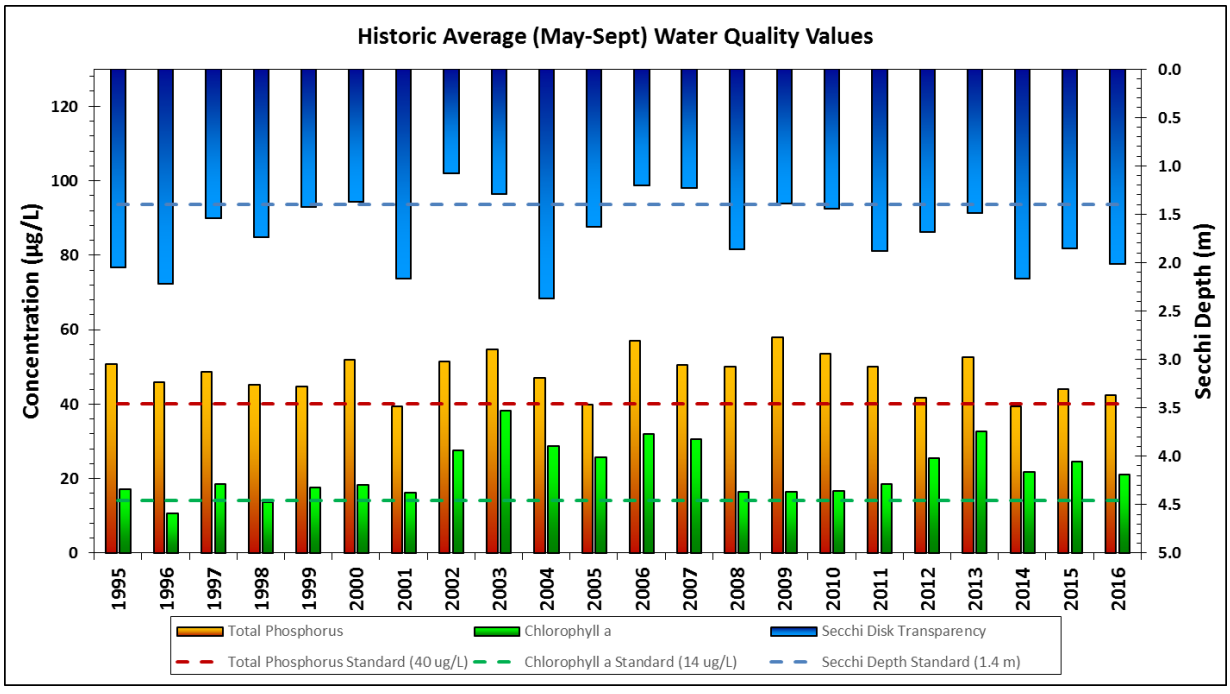


Fish Lake



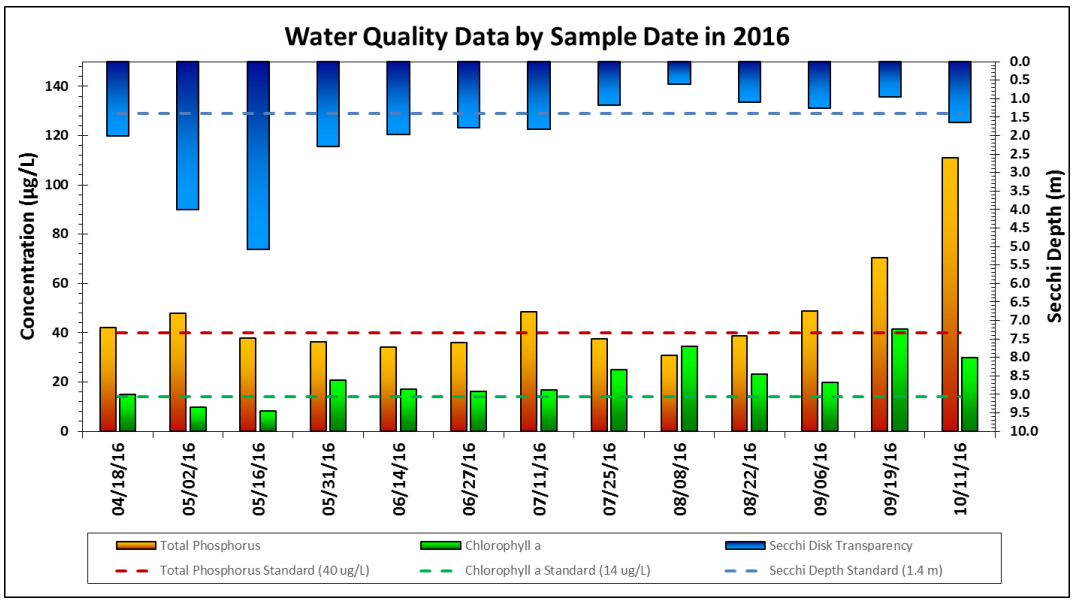


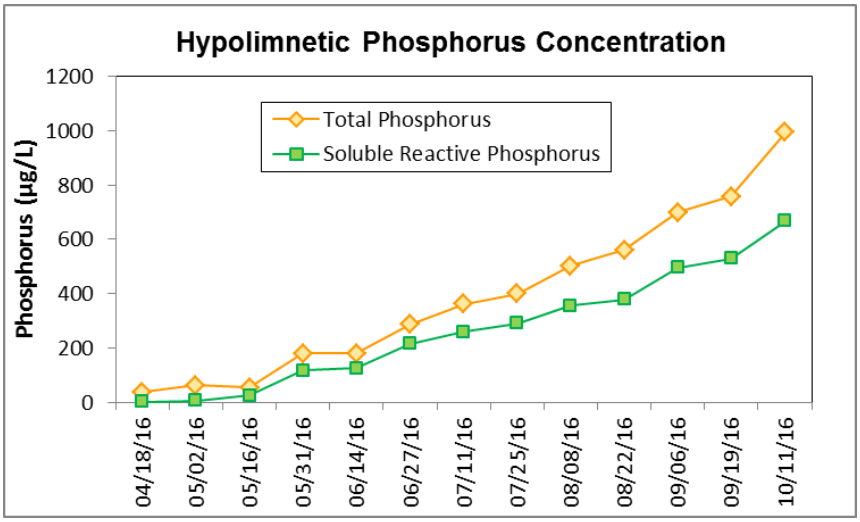
Lake and Watershed Characteristics	
DNR #	27011800
Watershed Area	1611 Acres
Lake Area	232.1 Acres
% Littoral Area	32%
Average Depth	20.5 ft
Maximum Depth	62.0 ft
Watershed/Lake Area Ratio	6.9 to 1
Hydraulic Residence Time	4.6 Years
Impairment	Excessive Nutrients 2008
Classification	Deep Lake



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

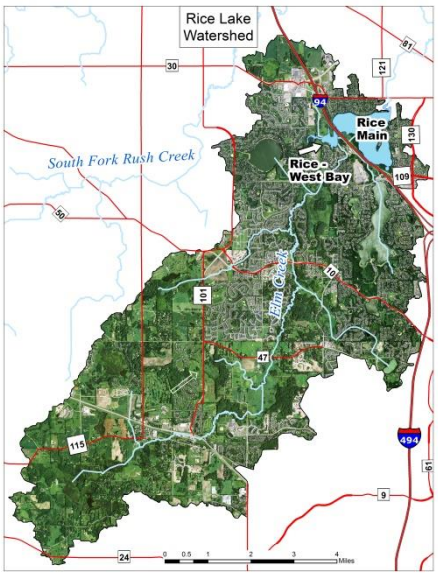
Metropolitan Council Grading System (Osgood 1989)

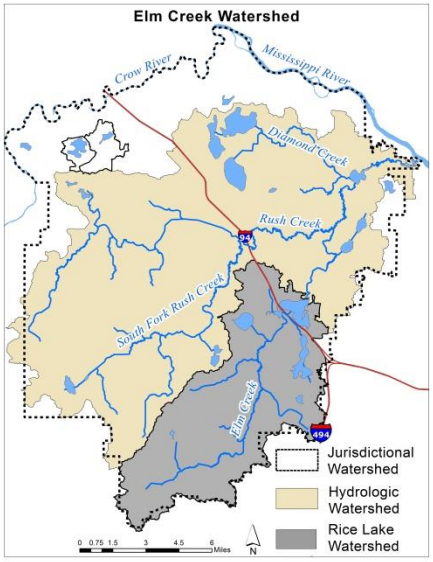


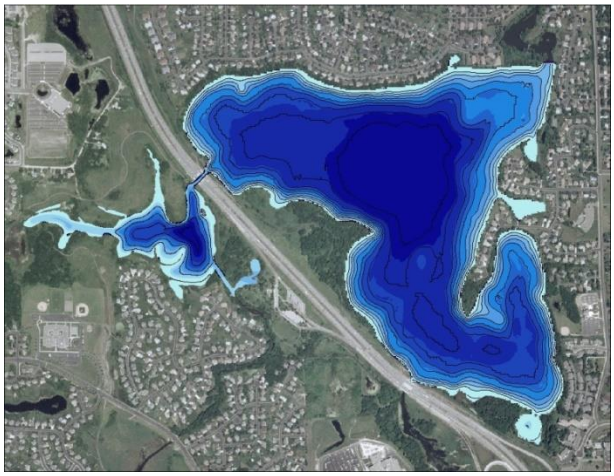


Appendix 6

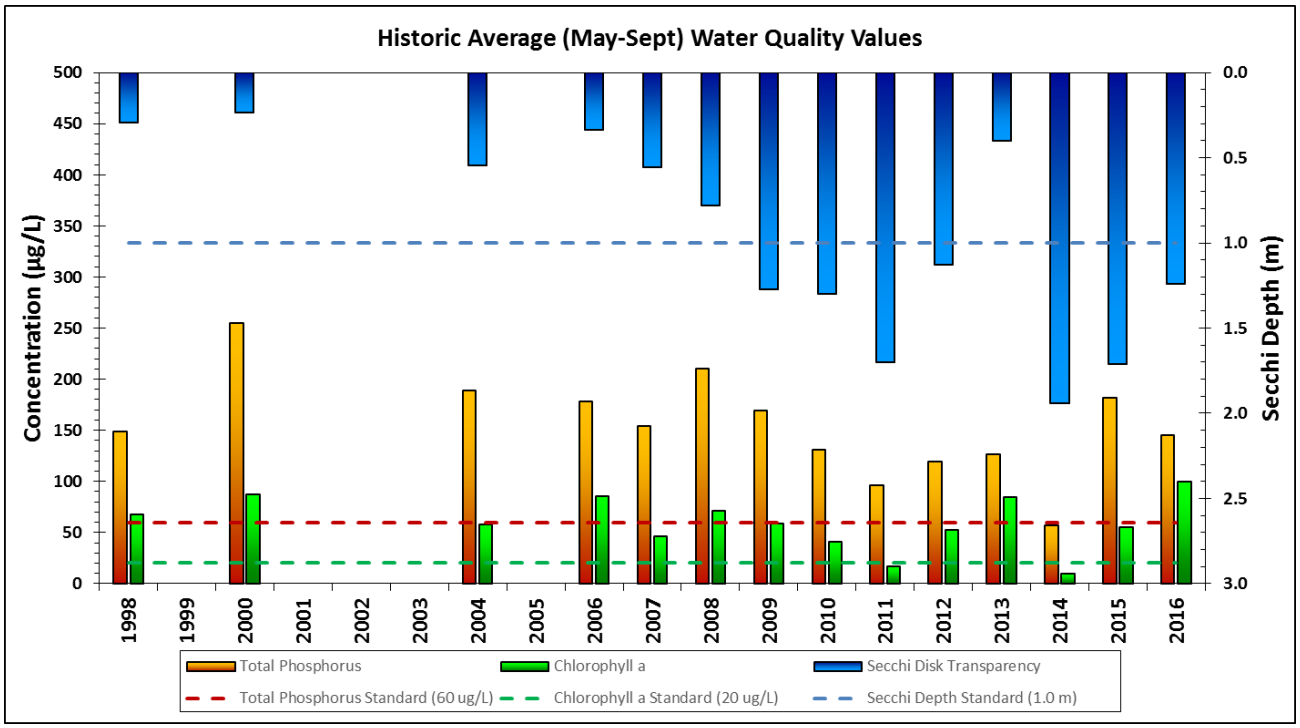
Rice Lake-Main Basin



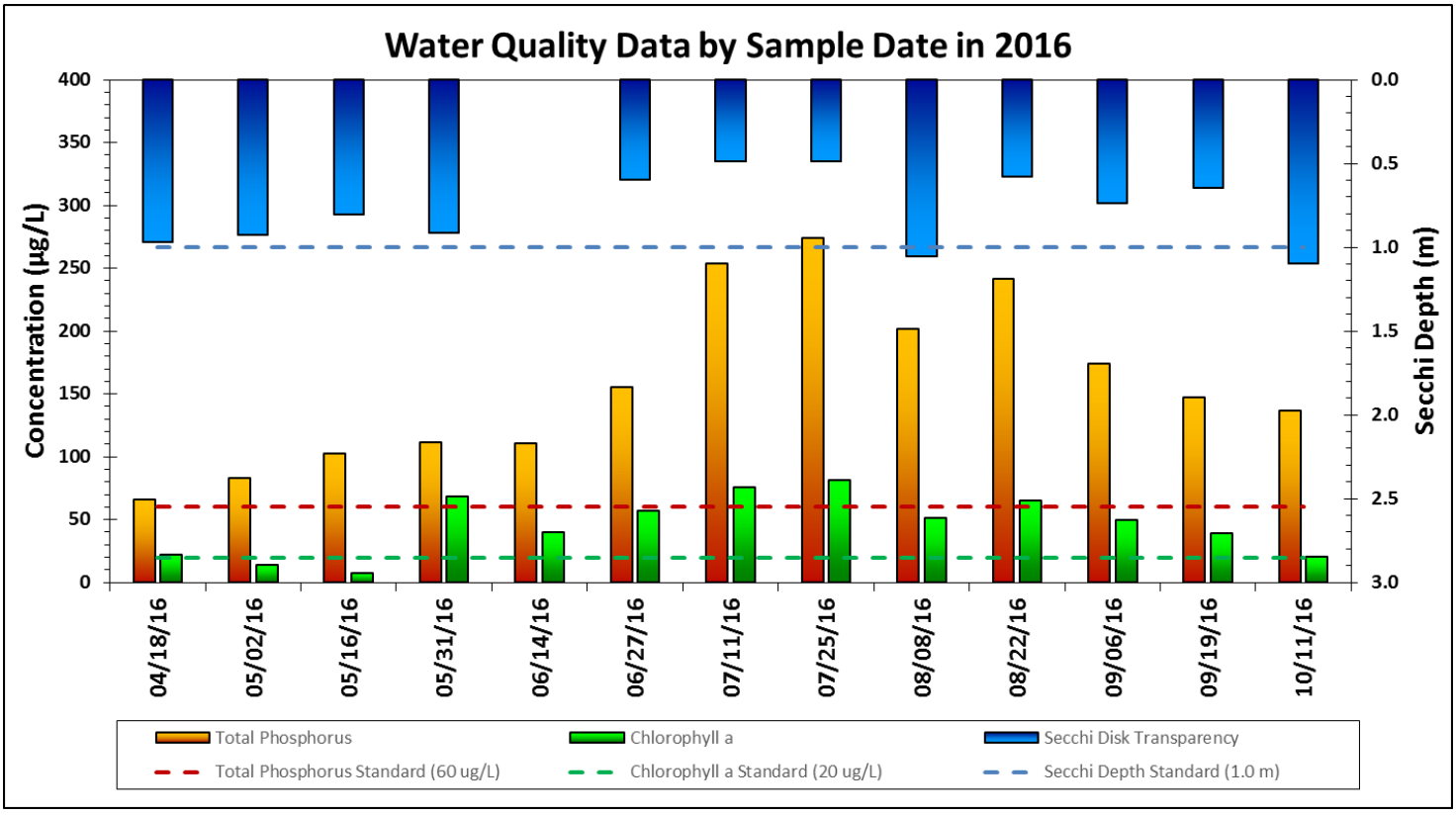




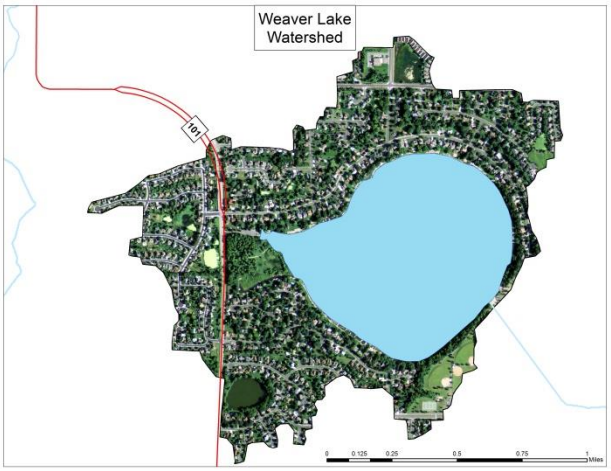
Lake and Watershed Characteristics	
DNR #	27011601
Watershed Area	16092 Acres
Lake Area	307.2 Acres
% Littoral Area	100%
Average Depth	7.02 ft
Maximum Depth	10.14 ft
Watershed/Lake Area Ratio	52.4 to 1
Hydraulic Residence Time	0.16 Years
Impairment	Excessive Nutrients 2010
Classification	Shallow Lake

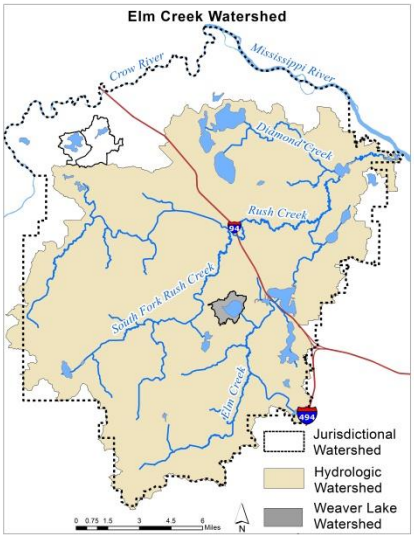


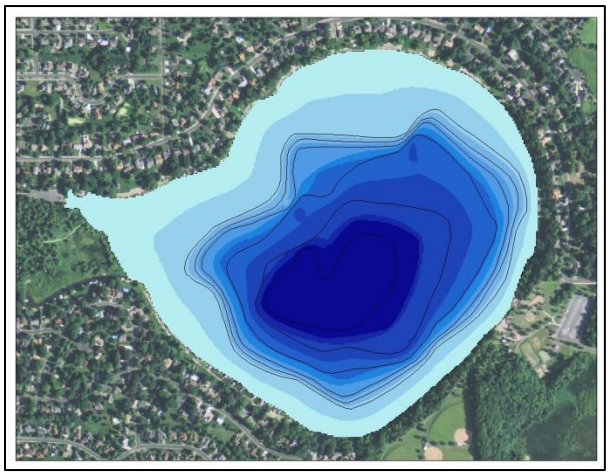
Rice Lake - Main Basin Lake Water Quality Report Card				
Year	**TP**	**Chl-a**	**Secchi**	**Avg Grade**
1997	F	C	F	D-
1998	F	A	D	C-
1999	F	C	D	D
2000	F	C	C	D+
2001	F	B	C	C-
2002	D	B	D	C-
2003	F	C	D	D
2004	F	C	D	D
2005	F	C	C	D+
2006	F	D	D	D-
2007	F	D	F	F
2008	F	C	D	D
2009	F	F	D	F
2010	F	D	D	D-
2011			D	F
2012				
2013	F	F	D	F
2014	F	D	C	D
2015	F	F	F	F
2016	F	D	D	D-
MPCA Standard	C	C	D	C
Metropolitan Council Grading System (Osgood 1989)				



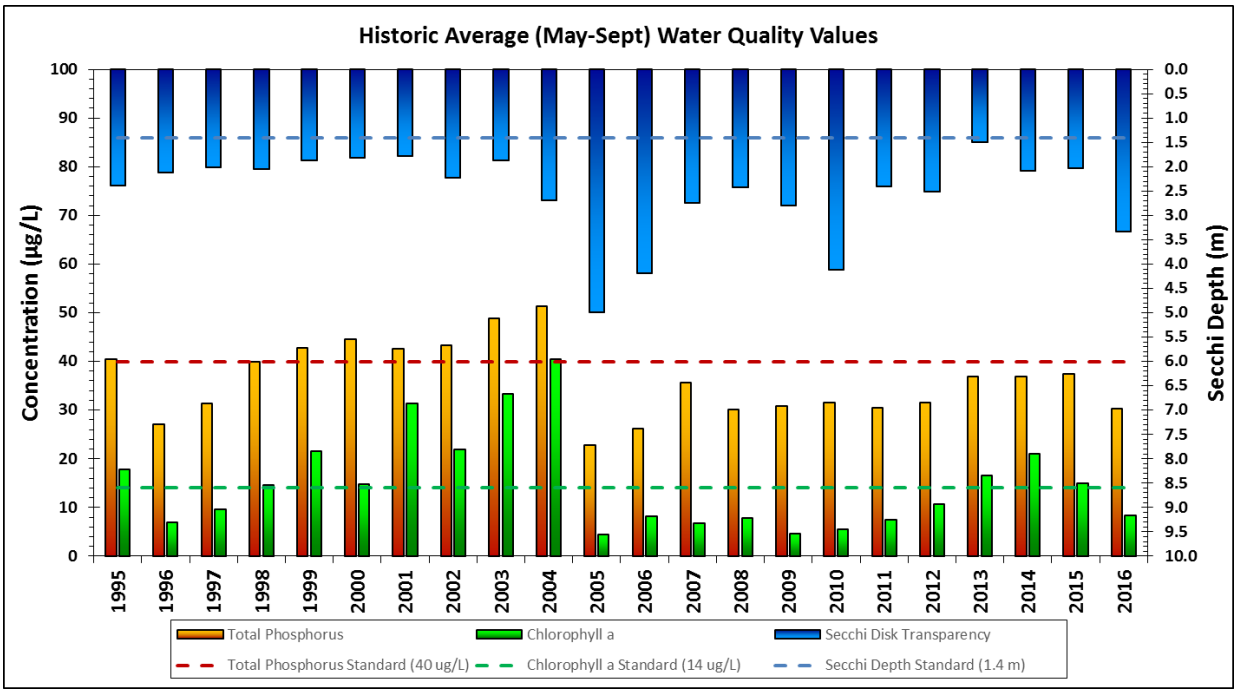
Weaver Lake





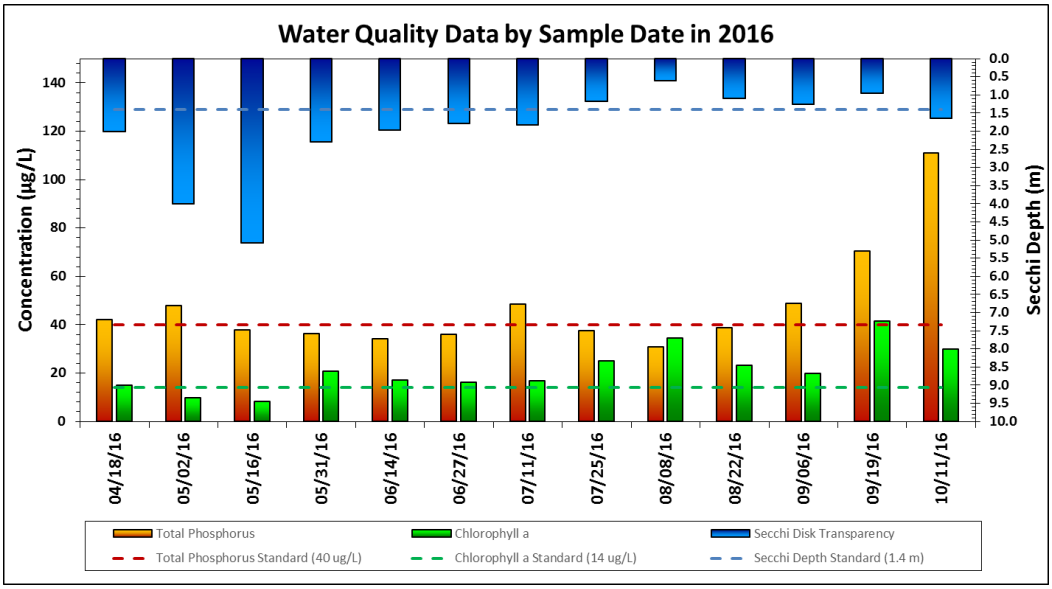


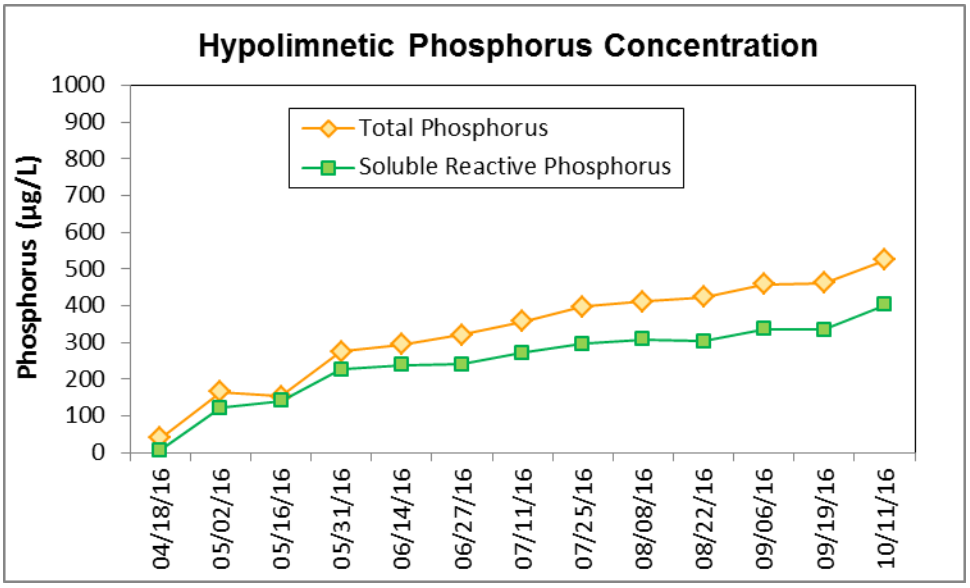
Lake and Watershed Characteristics	
DNR #	27011700
Watershed Area	187 Acres
Lake Area	149.5 Acres
% Littoral Area	47%
Average Depth	21.1 ft
Maximum Depth	52.0 ft
Watershed/Lake Area Ratio	1.3 to 1
Hydraulic Residence Time	13 Years
Impairment	None
Classification	Deep Lake



Weaver Lake Water Quality Report Card				
Year	TP	Chl-a	Secchi	Avg Grade
1995	C	B	B	B-
1996	B	A	C	B
1997	B	A	C	B
1998	C	B	C	C+
1999	C	C	C	C
2000	C	B	C	C+
2001	C	C	C	C
2002	C	C	B	C+
2003	C	C	C	C
2004	C	C	B	C+
2005	A	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	B	B
2013	C	B	C	C+
2014	C	C	C	C
2015	C	B	C	C+
2016	B	A	A	A-
MPCA Standard	C	B	C	C+

Metropolitan Council Grading System (Osgood 1989)





Appendix 6

Preliminary 2016 CAMP Data - Project No. 7108

Description	City	Water Planning Authority	Watershed	DNR ID	Lake Site	Site Desc	Date / Time	Field Replicate	Sample Depth, m	Air Temp °F	Aquatic Plants
Cowley Lake	Rogers	Elm Creek WMC	No.Fork Crow River	27016900	451	Center of Lake	05/18/2016 15:00	A	0	61-80	Moderate
Cowley Lake	Rogers	Elm Creek WMC	No.Fork Crow River	27016900	451	Center of Lake	06/01/2016 14:20	A	0	61-80	Moderate
Cowley Lake	Rogers	Elm Creek WMC	No.Fork Crow River	27016900	451	Center of Lake	06/13/2016 14:10	A	0	61-80	Moderate
Cowley Lake	Rogers	Elm Creek WMC	No.Fork Crow River	27016900	451	Center of Lake	06/30/2016 14:00	A	0	61-80	Slight
Cowley Lake	Rogers	Elm Creek WMC	No.Fork Crow River	27016900	451	Center of Lake	07/15/2016 08:00	A	0	61-80	Moderate
Cowley Lake	Rogers	Elm Creek WMC	No.Fork Crow River	27016900	451	Center of Lake	07/27/2016 11:00	A	0	61-80	Slight
Jubert Lake	Corcoran	Elm Creek WMC	Miss River - Twin Cities	27016500	451	Deepest point of Lake	05/26/2016 19:10	A	0	61-80	Minimal

Data are preliminary
and subject to revision.

Report Date: 3/31/2017

Preliminary 2016 CAMP Data - Project No. 7108

Description	Cloud Cover, %	Physical Condition	Recreation Suitable	Precipi-tation	Water Color	Water Odor	Water Surface	Wind	Water Temperature, C	L Secchi Disk Sign	L Secchi Disk, cm	Lake Level
Cowley Lake	75	3	4		Yellow	None	Calm	Light	21.9		280	Normal
Cowley Lake	50	3	4		Yellow	None	Small Waves	Breezy West	25		250	Normal
Cowley Lake	50	3	4		Yellow	None	Calm	Calm	26.1		250	Normal
Cowley Lake	25	3	4		Yellow	None	Calm	Calm	27.3			Normal
Cowley Lake	25		4		Green	Fishy	Ripple	Light	28.2		100	Normal
Cowley Lake	100	3	4		Green	Musty	Calm	Calm	27.1		100	Normal
Jubert Lake	0				Blue-Green	None	Calm	Calm	19		180	Normal

Data are preliminary
and subject to revision.

Preliminary 2016 CAMP Data - Project No. 7108

			Chlorophyll-a, % Pheo-Corrected %			Chlorophyll-a, Pheo-Corrected ug/L			Chlorophyll-a/Pheophytin-a Abs. Ratio			Chlorophyll-a, Trichromatic Uncorrected ug/L		
Description	Lake Gauge	Field Comment 1	Result Sign	Result	Censored Flag	Result Sign	Result	Censored Flag	Result Sign	Result	Censored Flag	Result Sign	Result	Censored Flag
Cowley Lake			>	100.000			300.000			1.670			310.000	
Cowley Lake				98.000			220.000			1.560			240.000	
Cowley Lake			>	100.000			230.000			1.650			240.000	
Cowley Lake				98.000			250.000			1.660			260.000	
Cowley Lake			>	100.000			340.000			1.680			360.000	
Cowley Lake			>	100.000			300.000			1.690			310.000	
Jubert Lake			>	85.000			5.800			1.430			6.500	

Data are preliminary
and subject to revision.

Preliminary 2016 CAMP Data - Project No. 7108

	Chlorophyll-b ug/L			Chlorophyll-c ug/L			Nitrogen, Total Kjeldahl, Low Level mg/L			Pheophytin-a ug/L			Phosphorus, Total, Low Level Detection mg/L		
Description	Result Sign	Result	Censored Flag	Result Sign	Result	Censored Flag	Result Sign	Result	Censored Flag	Result Sign	Result	Censored Flag	Result Sign	Result	Censored Flag
Cowley Lake	<	1.000			26.000			5.300		<	1.000			0.423	
Cowley Lake		5.900			33.000			4.500			5.400			0.346	
Cowley Lake	<	1.000			19.000			4.800		<	1.000			0.359	
Cowley Lake	<	1.000			18.000			4.600			4.300			0.360	
Cowley Lake	<	1.000			23.000			5.800		<	1.000			0.427	
Cowley Lake	<	1.000			18.000			4.400		<	1.000			0.381	
Jubert Lake	<	1.000			1.600			1.500		<	1.000			0.064	

Data are preliminary
and subject to revision.

2016 Stream Monitoring

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

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

Elm Creek has been monitored since 1976 by a station located in Champlin. The monitoring station for Elm Creek is located at Elm Creek Road crossing in the Elm Creek Park Reserve and is operated in cooperation with the United States Geological Survey (USGS). The exact location is: latitude 45°09'48", longitude 93°26'11" referenced to North American Datum of 1927, in NE ¼ NW ¼ Sec.35, T.120 N., R.22 W., Hennepin County, MN, Hydrologic Unit 07010206, on left bank, 33 feet downstream from bridge on Elm Creek Road, 2.5 mi southwest of Champlin. Datum of the gage is 850.70 ft above sea level (NGVD of 1929). The Commission shares the costs of operating the station, which collects continuous flow data and periodic event and base water quality data. The watershed area above the gauging station is 86 square miles, or 81% of the hydrologic watershed.

Both grab samples and storm runoff samples are collected and analyzed for various parameters. Analyses of the streamflow and water quality monitoring data for Elm Creek and its tributaries are summarized below. Real time data from the monitoring station in Champlin may be viewed on the Internet at http://waterdata.usgs.gov/mn/nwis/uv/?site_no=05287890&PARAmeter_cd=00065,00060.

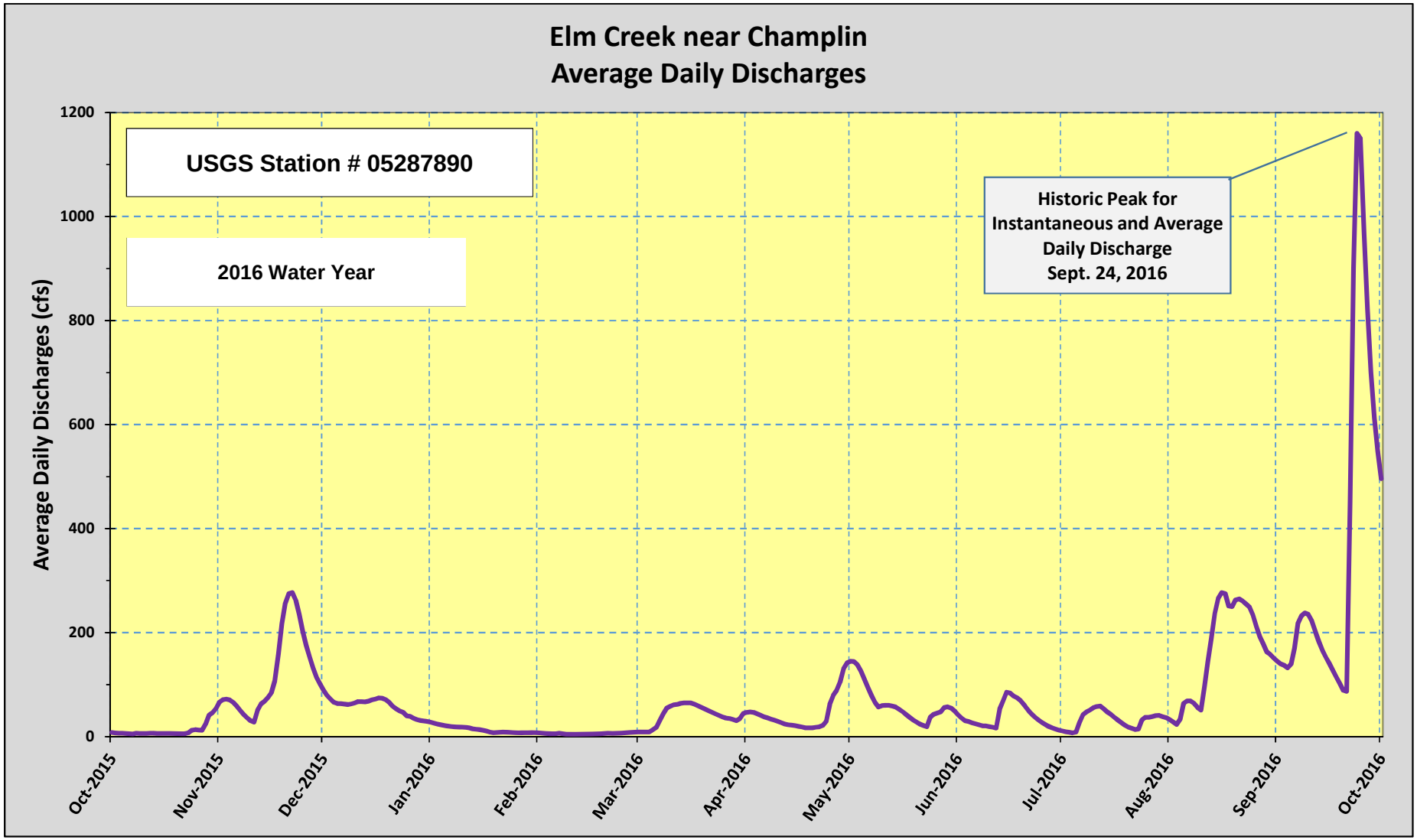
Flow Monitoring

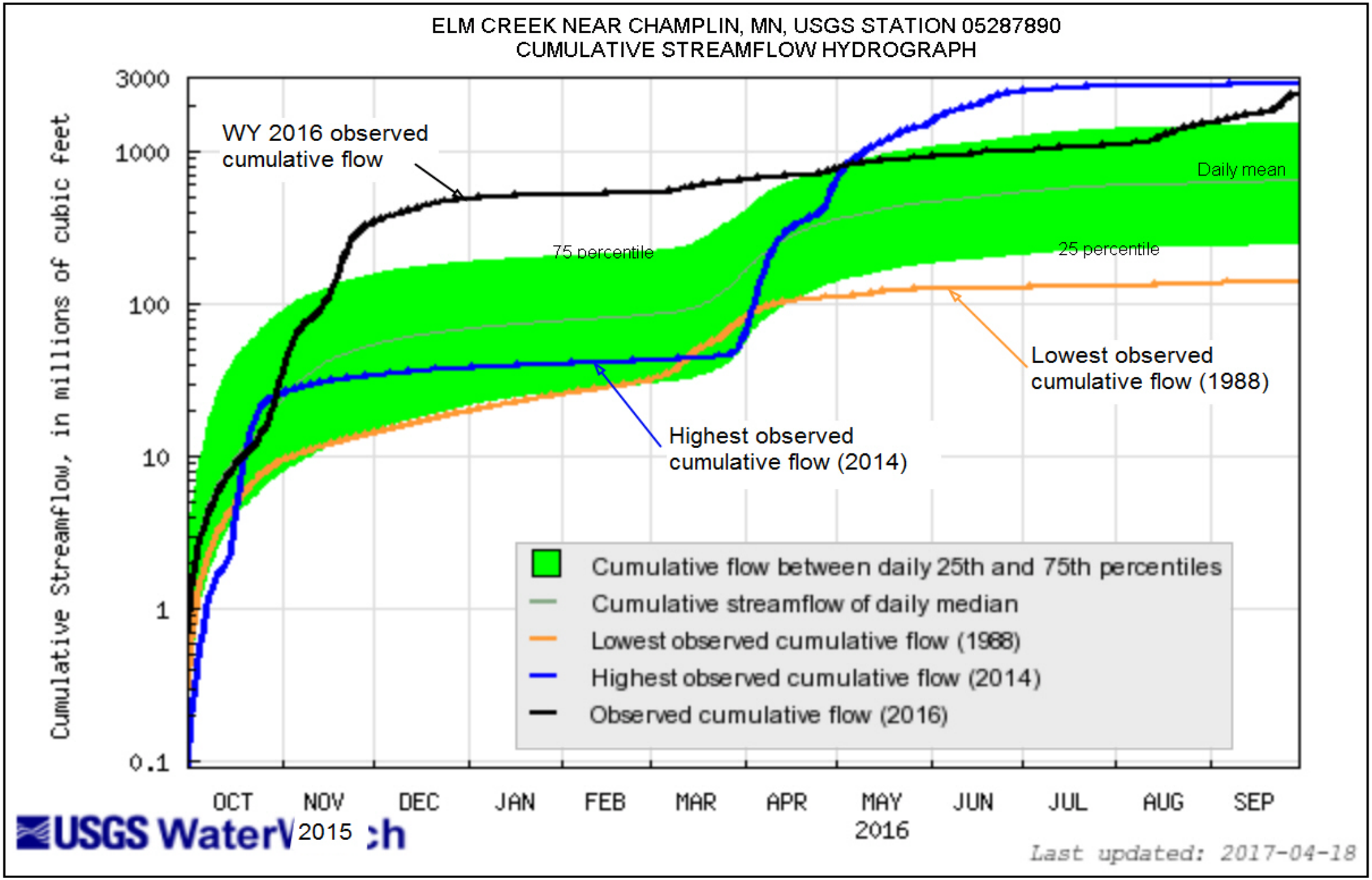
Storm event samples are collected using an automatic sampler. Routine manual sampling occurs approximately monthly. The average daily discharge for the 2016 WY (October 1, 2015 through September 30, 2016) was 78.8 cubic feet per second (cfs) or 12.5 inches. During the same period, the minimum and maximum observed average daily discharge values were 4.53 cfs and 1,160 cfs, respectively. The long-term average daily discharge at the station is 41.1 cfs or 6.50 inches (years 1979-2016). A spreadsheet of the data received in 2016 water year (WY), including daily discharge and summary information, long-term flow volumes (calendar and water years), the flow hydrograph and the annual instantaneous peak discharge values at the gauging station for the period of record are also found in this appendix.

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

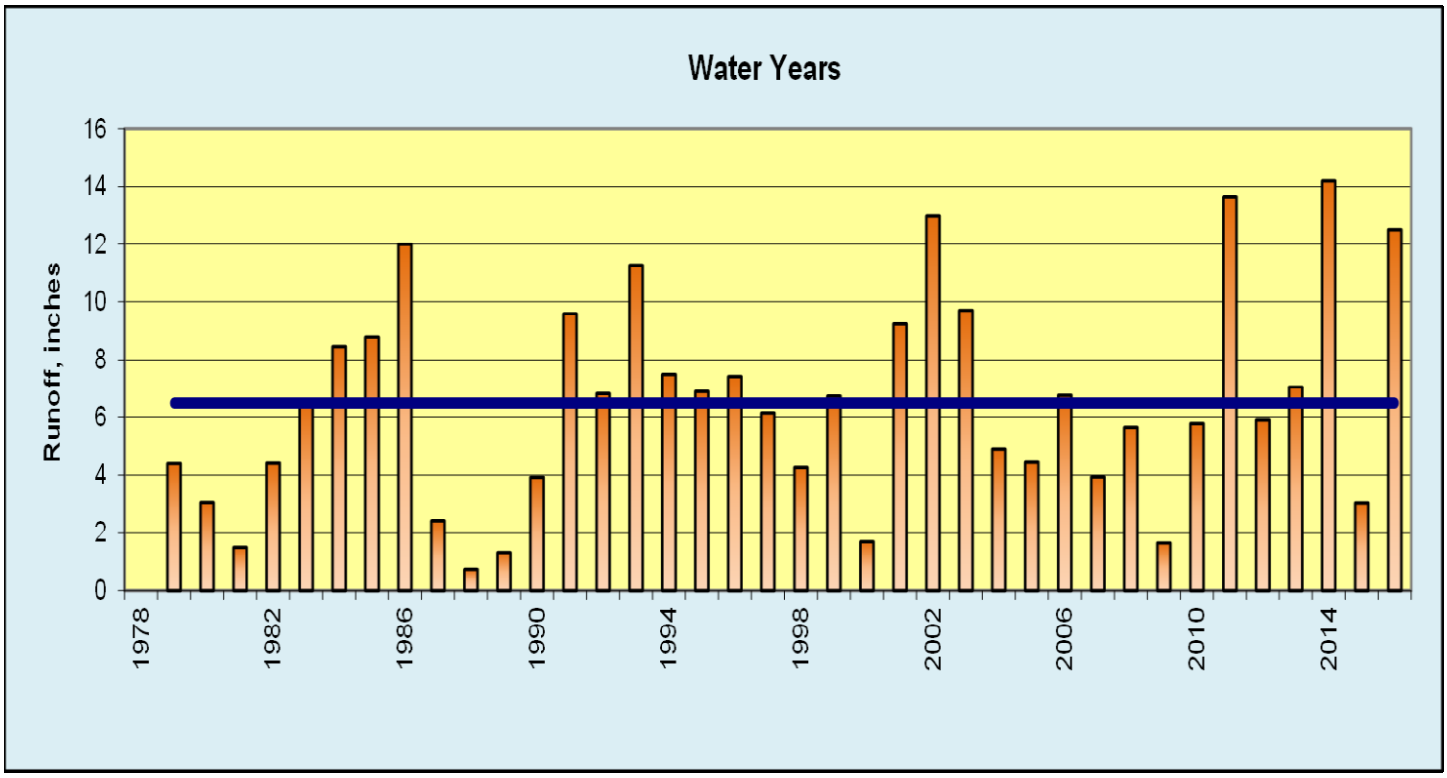
*These values have been revised based on the 2001 rating curve.
**All-time instantaneous peak discharge. The estimated 100-year flood discharge at this site is 2,290 cfs.

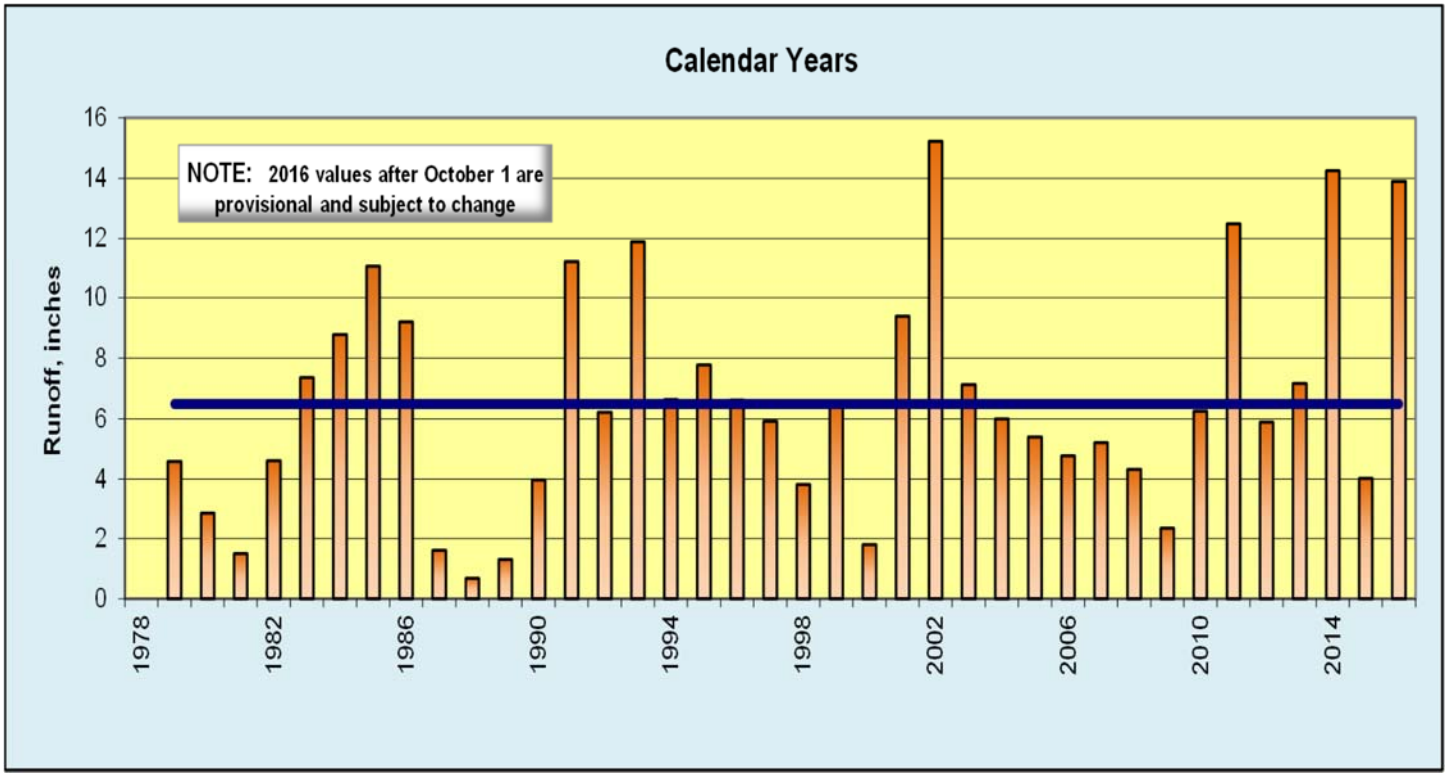
The storm event of September 19-25, 2016 produced more than 8 inches of rain within the Elm Creek watershed. About 7.1 inches of the total precipitation was received within 6 hours on September 21. On September 24, the USGS gauging station recorded a maximum gage height of 10.25 feet which corresponded to a historic record high instantaneous discharge of 1,220 cfs. This stage corresponds to 860.95 feet (NGVD 1929). The 100-year flood elevation at this locations is 861.8 feet (FEMA) and 862.0 feet (Elm Creek Flood Study).

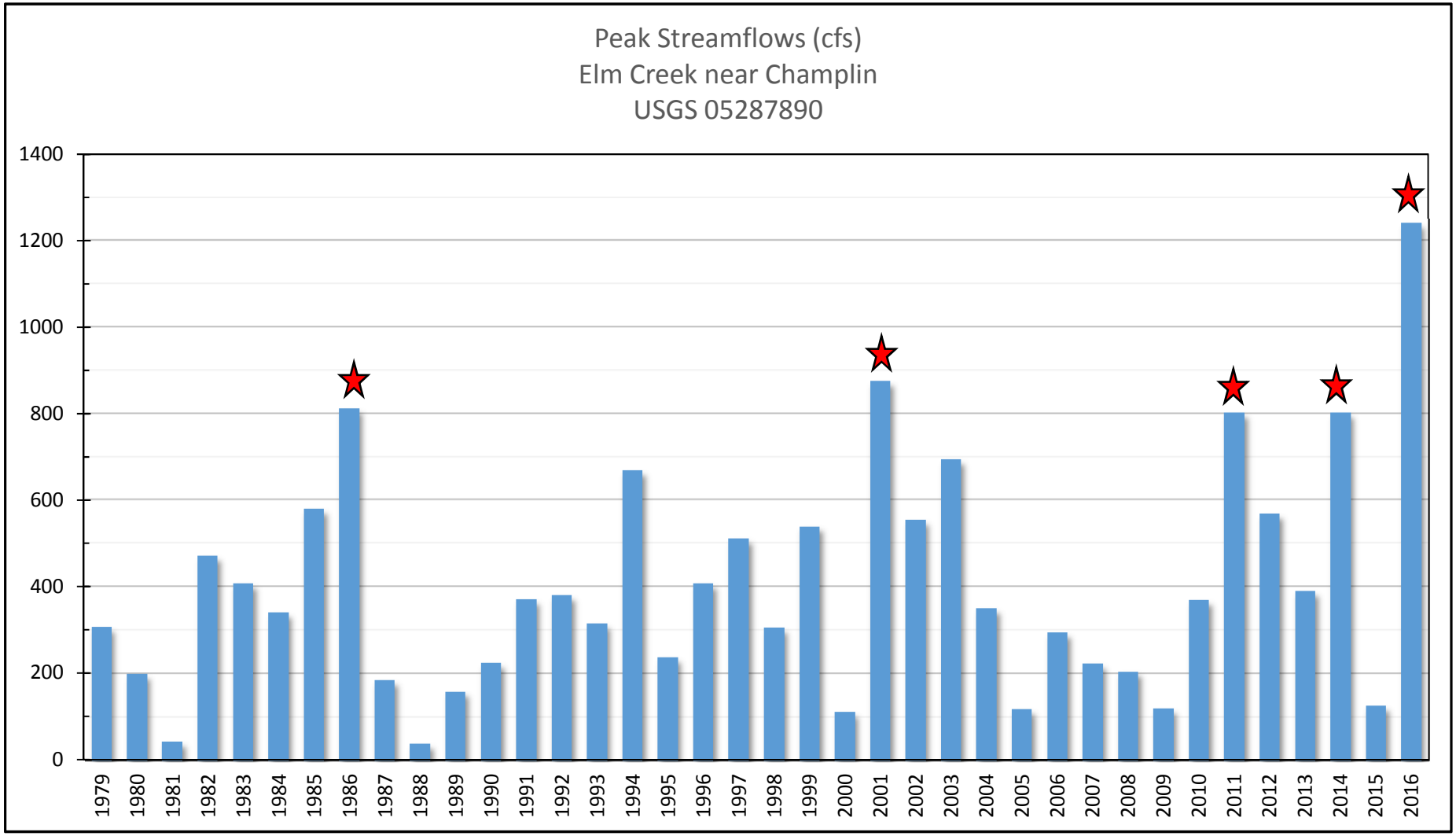

Elm Creek near Champlin
Average Daily Discharges
USGS Station # 05287890
2016 Water Year
Historic Peak for
Instantaneous and Average
Daily Discharge
Sept. 24, 2016
Average Daily Discharges (cfs)
1200
1000
800
600
400
200
0
Oct-2015
Nov-2015
Dec-2015
Jan-2016
Feb-2016
Mar-2016
Apr-2016
May-2016
Jun-2016
Jul-2016
Aug-2016
Sep-2016
Oct-2016


ELM CREEK NEAR CHAMPLIN, MN, USGS STATION 05287890
CUMULATIVE STREAMFLOW HYDROGRAPH
Cumulative Streamflow, in millions of cubic feet
3000
1000
100
10
1
0.1
WY 2016 observed cumulative flow
Daily mean
75 percentile
25 percentile
Lowest observed cumulative flow (1988)
Highest observed cumulative flow (2014)
Cumulative flow between daily 25th and 75th percentiles
Cumulative streamflow of daily median
Lowest observed cumulative flow (1988)
Highest observed cumulative flow (2014)
Observed cumulative flow (2016)
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
2015
2016
USGS Water
Last updated: 2017-04-18

Annual Runoff Summary
Elm Creek near Champlin, USGS 05287890






Peak Streamflows (cfs)
Elm Creek near Champlin
USGS 05287890
1400
1200
1000
800
600
400
200
0
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016

U.S. Geological Survey
Elm Creek near Champlin, Station Number 5287890
Water-Quality Data for Water Year 2016

site no	sample date	sample time	sample end date	sample end time	sample start time datum cd	tm datum rlbty cd	coll ent cd	medium cd	p00004	p00010	p00025	p00032	p00035	p00041	p00060
5287890	22-Oct-15	11:00			CDT	K	USGSMNWC	WS	26	8	771	100	0	2	5.3
5287890	12-Nov-15	12:30			CST	K	USGSMNWC	WS	32	7.4	730			0	50
5287890	2-Dec-15	11:00			CST	K	USGSMNWC	WS	34	1.2	732			2	
5287890	8-Jan-16	11:00			CST	K	USGSMNWC	WS	34	0.7	731			2	
5287890	16-Feb-16	11:00			CST	K	USGSMNWC	WS	32	0.8	734			2	
5287890	15-Mar-16	11:30			CDT	K	USGSMNWC	WS	33	7.5	732			3	
5287890	11-Apr-16	10:00			CDT	K	USGSMNWC	WS	30	4.6	739			1	
* 5287890	24-Apr-16	10:21	27-Apr-16	07:22	CDT	K	USGSMNWC	WS							
* 5287890	27-Apr-16	20:28	30-Apr-16	08:29	CDT	K	USGSMNWC	WS							
5287890	9-May-16	10:30			CDT	K	USGSMNWC	WS	33	15	735			3	
* 5287890	23-May-16	22:47	26-May-16	07:49	CDT	K	USGSMNWC	WS							
* 5287890	13-Jun-16	04:33	14-Jun-16	07:34	CDT	K	USGSMNWC	WS							
* 5287890	14-Jun-16	10:34	16-Jun-16	01:35	CDT	K	USGSMNWC	WS							
5287890	22-Jun-16	12:00			CDT	K	USGSMNWC	WS	32	21.5	736			0	
* 5287890	5-Jul-16	22:16	8-Jul-16	10:17	CDT	K	USGSMNWC	WS							
* 5287890	4-Aug-16	09:16	7-Aug-16	06:17	CDT	K	USGSMNWC	WS							
* 5287890	10-Aug-16	22:30	12-Aug-16	07:31	CDT	K	USGSMNWC	WS							
* 5287890	12-Aug-16	10:31	15-Aug-16	06:45	CDT	K	USGSMNWC	WS							
5287890	16-Aug-16	10:30			CDT	K	USGSMNWC	WS	38	22.4	741			0	
5287890	2-Sep-16	10:00			CDT	K	USGSMNWC	WS	34	18.5	746				
* 5287890	5-Sep-16	06:20	7-Sep-16	09:21	CDT	K	USGSMNWC	WS							
* 5287890	23-Sep-16	07:24	26-Sep-16	01:25	CDT	K	USGSMNWC	WS							

* Automatic Event Samples

U.S. Geological Survey
Elm Creek near Champlin, Station Number 5287890
Water-Quality Data for Water Year 2016

site no	sample date	sample time	sample end date	sample end time	p00061	p00063	p00065	p00095	p00191	p00300	p00301	p00340	p00400	p00530
5287890	22-Oct-15	11:00			5.4	5	3.41	648	0.00003	9.3	78	60	7.6	< 15
5287890	12-Nov-15	12:30			52	5	4.92	542	0.00002	10	86	68	7.7	< 15
5287890	2-Dec-15	11:00				5	5.54	581	0.00002	12.8	94	68	7.8	< 15
5287890	8-Jan-16	11:00				5	3.97	684	0.00002	13.2	96	81	7.7	< 15
5287890	16-Feb-16	11:00				5	3.44	771	0.00002	11.9	87	43	7.8	< 15
5287890	15-Mar-16	11:30				5		549	0.00001	11	95	59	7.9	< 15
5287890	11-Apr-16	10:00				5	11.44	655	0.00001	11.9	95	62	8	< 15
* 5287890	24-Apr-16	10:21	27-Apr-16	07:22								69		30
* 5287890	27-Apr-16	20:28	30-Apr-16	08:29								110		30
5287890	9-May-16	10:30				5	4.75	632	0.00001	8.1	84	76	7.9	16
* 5287890	23-May-16	22:47	26-May-16	07:49								57		< 15
* 5287890	13-Jun-16	04:33	14-Jun-16	07:34								29		100
* 5287890	14-Jun-16	10:34	16-Jun-16	01:35								55		40
5287890	22-Jun-16	12:00			46	5	4.48	585	0.00003	6.1	71	96	7.6	16
* 5287890	5-Jul-16	22:16	8-Jul-16	10:17										< 15
* 5287890	4-Aug-16	09:16	7-Aug-16	06:17								74		24
* 5287890	10-Aug-16	22:30	12-Aug-16	07:31								78		48
* 5287890	12-Aug-16	10:31	15-Aug-16	06:45								80		23
5287890	16-Aug-16	10:30			270	5	8	463	0.00006	3	35	95	7.2	17
5287890	2-Sep-16	10:00				5	6.39	488	0.00005	4.9	54	59	7.3	18
* 5287890	5-Sep-16	06:20	7-Sep-16	09:21								68		27
* 5287890	23-Sep-16	07:24	26-Sep-16	01:25								290		17

* Automatic Event Samples

U.S. Geological Survey
Elm Creek near Champlin, Station Number 5287890
Water-Quality Data for Water Year 2016

site no	sample date	sample time	sample end date	sample end time	p00535	p00540	p00600	p00605	p00608	p00610	p00613	p00618	p00625	p00631
5287890	22-Oct-15	11:00			< 10	< 15	1	0.81	0.04	0.05	0.012	0.17	0.86	0.182
5287890	12-Nov-15	12:30			< 10	< 15	1.2	0.98	0.05	0.06	0.009	0.176	1	0.184
5287890	2-Dec-15	11:00			< 10	< 15	1.5	0.94	0.06	0.09	0.008	0.438	1	0.445
5287890	8-Jan-16	11:00			< 10	< 15	1.2	0.83	0.1	0.11	0.006	0.259	0.95	0.265
5287890	16-Feb-16	11:00			< 10	< 15	1.1	0.6	0.21	0.23	0.007	0.226	0.83	0.233
5287890	15-Mar-16	11:30			10	< 5	1.1	0.87	0.04	0.04	0.005	0.155	0.91	0.16
5287890	11-Apr-16	10:00			< 10	< 15	< 0.93	0.86	0.02	0.03	0.001	< 0.039	0.89	< 0.040
* 5287890	24-Apr-16	10:21	27-Apr-16	07:22	10	20	1.3	1.1	0.07	0.05	0.009	0.113	1.2	0.122
* 5287890	27-Apr-16	20:28	30-Apr-16	08:29	11	19	1.2	1	0.02	0.03	0.004	0.203	1	0.207
5287890	9-May-16	10:30			< 10	< 16	< 1.1	1	0.02	0.04	0.001	< 0.039	1	< 0.040
* 5287890	23-May-16	22:47	26-May-16	07:49	< 10	< 15	1.5	1.1	0.06	0.11	0.024	0.316	1.2	0.34
* 5287890	13-Jun-16	04:33	14-Jun-16	07:34	< 20	< 100	2.4	1.5	0.12	0.14	0.038	0.707	1.6	0.746
* 5287890	14-Jun-16	10:34	16-Jun-16	01:35	10	30	2.4	1.3	0.09	0.12	0.074	0.973	1.4	1.05
5287890	22-Jun-16	12:00			< 10	< 16	1.2	1.1	0.04	0.06	0.006	0.04	1.2	0.045
* 5287890	5-Jul-16	22:16	8-Jul-16	10:17	< 10	< 15	1.2	1.1	0.07	0.07	0.011	0.092	1.1	0.102
* 5287890	4-Aug-16	09:16	7-Aug-16	06:17	< 10	< 24	1.4	1.2	0.08	0.11	0.02	0.069	1.3	0.089
* 5287890	10-Aug-16	22:30	12-Aug-16	07:31	< 10	< 48	1.5	1.3	0.12	0.16	0.015	0.109	1.4	0.125
* 5287890	12-Aug-16	10:31	15-Aug-16	06:45	< 10	< 23	1.4	1.2	0.1	0.13	0.008	0.038	1.3	0.046
5287890	16-Aug-16	10:30			< 10	< 17	< 1.4	1.2	0.12	0.15	0.004	< 0.036	1.4	< 0.040
5287890	2-Sep-16	10:00			< 10	< 18	1.3	1.2	0.09	0.1	0.008	0.042	1.3	0.05
* 5287890	5-Sep-16	06:20	7-Sep-16	09:21	< 10	< 27	1.3	1.2	0.09	0.08	0.012	0.073	1.2	0.085
* 5287890	23-Sep-16	07:24	26-Sep-16	01:25	< 10	< 17	1.1	0.86	0.04	0.07	0.014	0.121	0.92	0.135

* Automatic Event Samples

U.S. Geological Survey
Elm Creek near Champlin, Station Number 5287890
Water-Quality Data for Water Year 2016

site no	sample date	sample time	sample end date	sample end time	p00665	p00666	p00940	p30207	p30208	p30209	p50280	p71845	p71846	p71851
5287890	22-Oct-15	11:00			0.09	0.07	68.3	1.04	0.15	0.15	1001	0.07	0.051	0.752
5287890	12-Nov-15	12:30			0.13	0.08	62.9	1.5	1.4	1.5	1001	0.082	0.068	0.778
5287890	2-Dec-15	11:00			0.11	0.09	62	1.69			1001	0.12	0.076	1.94
5287890	8-Jan-16	11:00			0.07	0.03	70	1.21			1001	0.147	0.133	1.15
5287890	16-Feb-16	11:00			0.07	0.03	60.1	1.05			1001	0.297	0.265	0.998
5287890	15-Mar-16	11:30			0.09	0.03	61				1001	0.054	0.048	0.687
5287890	11-Apr-16	10:00			0.06	0.02	75.1	3.49			1001	0.033	0.028	< 0.172
* 5287890	24-Apr-16	10:21	27-Apr-16	07:22	0.17	0.07	93.1				1002	0.064	0.092	0.499
* 5287890	27-Apr-16	20:28	30-Apr-16	08:29	0.15	0.07	82.4				1002	0.041	0.03	0.899
5287890	9-May-16	10:30			0.13	0.08	75	1.45			1001	0.054	0.029	< 0.171
* 5287890	23-May-16	22:47	26-May-16	07:49	0.18	0.12	79.8				1002	0.135	0.077	1.4
* 5287890	13-Jun-16	04:33	14-Jun-16	07:34	0.39	0.18	52.5				1002	0.185	0.15	3.13
* 5287890	14-Jun-16	10:34	16-Jun-16	01:35	0.27	0.18	57.7				1002	0.155	0.11	4.31
5287890	22-Jun-16	12:00			0.33	0.23	64.7	1.37		1.3	1001	0.079	0.054	0.177
* 5287890	5-Jul-16	22:16	8-Jul-16	10:17	0.25	0.18	64.9				1002	0.094	0.084	0.405
* 5287890	4-Aug-16	09:16	7-Aug-16	06:17	0.27	0.16	61.3				1002	0.142	0.103	0.307
* 5287890	10-Aug-16	22:30	12-Aug-16	07:31	0.38	0.2	50.6				1002	0.202	0.151	0.485
* 5287890	12-Aug-16	10:31	15-Aug-16	06:45	0.3	0.2	56.4				1002	0.171	0.133	0.167
5287890	16-Aug-16	10:30			0.39	0.23	46.2	2.44		7.6	1001	0.198	0.153	< 0.158
5287890	2-Sep-16	10:00			0.36	0.23	44.2	1.95			1001	0.134	0.121	0.185
* 5287890	5-Sep-16	06:20	7-Sep-16	09:21	0.31	0.2	39.7				1002	0.103	0.11	0.324
* 5287890	23-Sep-16	07:24	26-Sep-16	01:25	0.2	0.13	24.8				1002	0.084	0.05	0.535
* Automatic Event Samples														

U.S. Geological Survey
Elm Creek near Champlin, Station Number 5287890
Water-Quality Data for Water Year 2016

site no	sample date	sample time	sample end date	sample end time	p71856	p71999	p72104	p72105	p72220	p82398	p84164	p84171	p84182	p90095
5287890	22-Oct-15	11:00			0.041	10				40	3071	10	2	
5287890	12-Nov-15	12:30			0.028	10		20		40	3071	10	2	
5287890	2-Dec-15	11:00			0.025	10		20		40	3071	10	2	
5287890	8-Jan-16	11:00			0.021	10				40	3061	10	1	
5287890	16-Feb-16	11:00			0.023	10	2			60	3061	10	1	
5287890	15-Mar-16	11:30			0.016	10				60	3061	10	1	
5287890	11-Apr-16	10:00			0.004	10				40	3061	10	1	
* 5287890	24-Apr-16	10:21	27-Apr-16	07:22	0.03	10				25	4115	10	2	
* 5287890	27-Apr-16	20:28	30-Apr-16	08:29	0.015	10				25	4115	10	2	637
5287890	9-May-16	10:30			0.004	10		20		40	3061		1	
* 5287890	23-May-16	22:47	26-May-16	07:49	0.078	10				25	4115	10	2	
* 5287890	13-Jun-16	04:33	14-Jun-16	07:34	0.125	10				25	4115	10	2	
* 5287890	14-Jun-16	10:34	16-Jun-16	01:35	0.244	10				25	4115	10	2	
5287890	22-Jun-16	12:00			0.018	10		20		40	3061	10	1	
* 5287890	5-Jul-16	22:16	8-Jul-16	10:17	0.035	10				25	4115	10	2	511
* 5287890	4-Aug-16	09:16	7-Aug-16	06:17	0.066	10				25	4115	10	2	
* 5287890	10-Aug-16	22:30	12-Aug-16	07:31	0.05	10				25	4115	10	2	426
* 5287890	12-Aug-16	10:31	15-Aug-16	06:45	0.027	10				25	4115	10	2	465
5287890	16-Aug-16	10:30			0.014	10		40	4	20	3052	10	2	
5287890	2-Sep-16	10:00			0.026	10		20		40	3061	10	1	
* 5287890	5-Sep-16	06:20	7-Sep-16	09:21	0.038	10				25	4115	10	2	444
* 5287890	23-Sep-16	07:24	26-Sep-16	01:25	0.047	10				25	4115	10	2	
* Automatic Event Samples														

U.S. Geological Survey
Elm Creek near Champlin, Station Number 5287890
Water-Quality Data for Water Year 2016

site no	sample date	sample time	sample end date	sample end time	p99111	p99156	p99162	p99163	p99165	p99171	p99172	p99173	p99206
5287890	22-Oct-15	11:00				40182	30401	30379	30392	20142	20148	20159	10033
5287890	12-Nov-15	12:30				40182	30401	30379	30392	20142	20148	20159	10033
5287890	2-Dec-15	11:00				40182	30401	30379	30392	20142	20148	20159	10033
5287890	8-Jan-16	11:00				40189	30401	30379	30392	20142	20148	20159	10033
5287890	16-Feb-16	11:00				40189	30401	30379	30392	20097	20148	20159	10033
5287890	15-Mar-16	11:30				40189	30401	30379	30392	20150	20148	20159	10028
5287890	11-Apr-16	10:00				40189	30401	30379	30392	20150	20151	20159	10028
* 5287890	24-Apr-16	10:21	27-Apr-16	07:22		40182							10033
* 5287890	27-Apr-16	20:28	30-Apr-16	08:29		40200							10033
5287890	9-May-16	10:30			1	40200	30401	30395	30392	20150	20151	20159	10028
* 5287890	23-May-16	22:47	26-May-16	07:49		40200							10036
* 5287890	13-Jun-16	04:33	14-Jun-16	07:34		40200							10036
* 5287890	14-Jun-16	10:34	16-Jun-16	01:35		40200							10036
5287890	22-Jun-16	12:00			1	40205	30401	30395	30451	20158	20151	20194	10028
* 5287890	5-Jul-16	22:16	8-Jul-16	10:17		40205							10028
* 5287890	4-Aug-16	09:16	7-Aug-16	06:17		40205							10028
* 5287890	10-Aug-16	22:30	12-Aug-16	07:31		40216							10028
* 5287890	12-Aug-16	10:31	15-Aug-16	06:45		40216							10028
5287890	16-Aug-16	10:30			1	40216	30401	30476	30451	20214	20209	20205	10028
5287890	2-Sep-16	10:00			30	40216	30401	30476	30451	20214	20209	20224	10028
* 5287890	5-Sep-16	06:20	7-Sep-16	09:21	1	40216							10028
* 5287890	23-Sep-16	07:24	26-Sep-16	01:25		40216							10036

* Automatic Event Samples

U.S. Geological Survey Water Quality data – Explanation of codes for 05287890 Elm Creek near Champlin, MN

agency_cd ..... Agency Code
site_no ..... Station number
sample_dt ..... Begin date
sample_tm ..... Begin time
sample_end_dt ..... End date
sample_end_tm ..... End time
sample_start_time_datum_cd . Time datum
tm_datum_rlbty_cd ..... Time datum reliability code
coll_ent_cd ..... Agency Collecting Sample Code
medium_cd ..... Medium code
tu_id ..... Taxonomic unit code
body_part_id ..... Body part code
P00004 ..... Stream width, feet
P00010 ..... Temperature, water, degrees Celsius
P00025 ..... Barometric pressure, millimeters of mercury
P00032 ..... Cloud cover, percent
P00035 ..... Wind speed, miles per hour
P00041 ..... Weather, World Meteorological Organization code
P00060 ..... Discharge, cubic feet per second
P00061 ..... Discharge, instantaneous, cubic feet per second
P00063 ..... Number of sampling points, count
P00065 ..... Gage height, feet
P00095 ..... Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius
P00191 ..... Hydrogen ion, water, unfiltered, calculated, milligrams per liter
P00300 ..... Dissolved oxygen, water, unfiltered, milligrams per liter
P00301 ..... Dissolved oxygen, water, unfiltered, percent of saturation
P00340 ..... Chemical oxygen demand, high level, water, unfiltered, milligrams per liter
P00400 ..... pH, water, unfiltered, field, standard units
P00530 ..... Suspended solids, water, unfiltered, milligrams per liter
P00535 ..... Loss on ignition of suspended solids, water, unfiltered, milligrams per liter
P00540 ..... Suspended solids remaining after ignition, water, unfiltered, milligrams per liter
P00600 ..... Total nitrogen [nitrate + nitrite + ammonia + organic-N], water, unfiltered, milligrams per liter
P00605 ..... Organic nitrogen, water, unfiltered, milligrams per liter as nitrogen
P00608 ..... Ammonia, water, filtered, milligrams per liter as nitrogen
P00610 ..... Ammonia, water, unfiltered, milligrams per liter as nitrogen
P00613 ..... Nitrite, water, filtered, milligrams per liter as nitrogen
P00618 ..... Nitrate, water, filtered, milligrams per liter as nitrogen

P00625 ..... Ammonia plus organic nitrogen, water, unfiltered, milligrams per liter as nitrogen
P00631 ..... Nitrate plus nitrite, water, filtered, milligrams per liter as nitrogen
P00665 ..... Phosphorus, water, unfiltered, milligrams per liter as phosphorus
P00666 ..... Phosphorus, water, filtered, milligrams per liter as phosphorus
P00940 ..... Chloride, water, filtered, milligrams per liter
P30207 ..... Gage height, above datum, meters
P30208 ..... Discharge, cubic meters per second
P30209 ..... Discharge, instantaneous, cubic meters per second
P50280 ..... Site visit purpose, code
P71845 ..... Ammonia, water, unfiltered, milligrams per liter as NH4
P71846 ..... Ammonia, water, filtered, milligrams per liter as NH4
P71851 ..... Nitrate, water, filtered, milligrams per liter as nitrate
P71856 ..... Nitrite, water, filtered, milligrams per liter as nitrite
P71999 ..... Sample purpose, code
P72104 ..... Sample location, distance downstream, feet
P72105 ..... Sample location, distance upstream, feet
P72220 ..... Sampler nozzle diameter, code
P82398 ..... Sampling method, code
P84164 ..... Sampler type, code
P84171 ..... Sample splitter type, field, code
P84182 ..... Bottle or bag sampler material (construction), code
P90095 ..... Specific conductance, water, unfiltered, laboratory, microsiemens per centimeter at 25 degrees Celsius
P99111 ..... Type of quality assurance data associated with sample, code
P99156 ..... Sulfuric acid NWIS lot number, 4.5 N (1:7), 1 mL, National Field Supply Service (NFSS) stock number Q438FLD
P99162 ..... Conductance standard NWIS lot number, 250 uS/cm KCl, National Field Supply Service (NFSS) stock number Q44FLD
P99163 ..... Conductance standard NWIS lot number, 500 uS/cm KCl, National Field Supply Service (NFSS) stock number Q45FLD
P99165 ..... Conductance standard NWIS lot number, 1000 uS/cm KCl, National Field Supply Service (NFSS) stock number Q47FLD
P99171 ..... pH 10 Buffer solution, NWIS lot number, National Field Supply Service (NFSS) stock numbers Q122FLD, Q123FLD
P99172 ..... pH 4 Buffer solution, NWIS lot number, National Field Supply Service (NFSS) stock numbers Q124FLD, Q125FLD
P99173 ..... pH 7 Buffer solution, NWIS lot number, National Field Supply Service (NFSS) stock numbers Q126FLD, Q127FLD
P99206 ..... NWIS lot number, capsule filter, 0.45 micron

Description of sample_start_time_datum_cd: CST ..... Central Standard Time; CDT .....Central Daylight Time
Description of tm_datum_rlbty_cd: K ..... Known
Description of coll_ent_cd: USGSMNWC ..... USGS Minnesota Water Science Center
Description of medium_cd: WS ..... Surface water
Description of tu_id: https://www.itis.gov/
Description of remark_cd: < ..... less than

Wetland Health Evaluation Program (WHEP)

WHEP is a citizen volunteer wetland monitoring program that is focused on educating the public on wetland ecology and quality issues; as well as, providing local governments with wetland planning information. WHEP is currently active in Dakota and Hennepin counties and is coordinated in Hennepin County by the staff of the Environment and Energy Department. For more information about WHEP, contact Mary Karius, 612-596-9129.

In 2016, 93 volunteers donated 1,067 hours of their time to monitor area wetlands. According to the Independent Sector, the value of volunteer time in Minnesota is $24.83 per hour ; therefore, our volunteers contributed more than $26,000 to monitor, protect and advocate for Hennepin County wetlands.

For the past two decades, WHEP has provided a great opportunity for Hennepin County residents to connect with the wetlands in their communities and become advocates for their sustainability.

Watershed management organizations and cities contract with Hennepin County to administer volunteer water quality monitoring programs. WHEP is designed to collect data and provide hands-on environmental education experiences for volunteers.

The volunteers use protocols approved by the Minnesota Pollution Control Agency to gather a variety of organisms. Their presence or absence can indicate a possible change in water quality. This biological data is often used to assess the long-term health of water and is complimentary to chemical analysis and other data used to determine water quality.

The data collected is primarily used by watershed management organizations and cities. Some organizations use the data to communicate to residents about the health of their local water resource. Others have used the data to identify or track impacts of restoration efforts. They may also use the data as a historic catalog of specific organisms that have been collected and identified. For example, the county's program has data going back 17 years on Minnehaha Creek. In many cases, organizations use the data to fulfill the education requirement for stormwater management plans.

DATA KEY

INVERTEBRATES

 # Kinds of Leeches: The # of leeches present in the sample; number is higher in healthier wetlands

% Corixidae : This measure counts the density and overall % of the sample of corixid bugs which are algae and detritus feeders.

 # Kinds of Odonata: This measures the number of dragonflies and damselflies in a sample. This number is higher in healthier wetlands.

 # ETSD : This metric adds the number of mayfly larvae (Ephemeroptera), caddisfly larvae (Trichoptera), dragonfly presence (D), and fingernail clam presence (Sphaeriidae). This collection is sensitive to pollution.

 # Kinds of Snails : This measures the number of snail TYPES in the wetland. The higher the number the better quality wetland.

Total Invertebrate Taxa: The total number of invertebrate taxa is the strongest indicator of health in a wetland. This is an overall inventory of invertebrates, the higher the number the better diversity.

VEGETATION

Vascular Genera: measures the richness or number of different kinds of vascular plants

Nonvascular Genera : measures the richness or number of different kinds of nonvascular plants such as mosses, liverworts and lichens.

Grasslike Genera: measures the richness of a specific type of vascular plants including grasses, sedges and related genera.

***Carex* Cover**: measures the extent of coverage by member of the genus *Carex* or sedges. Abundance increases in healthier wetlands.

***Utricularia* Presence**: Bladdorwort is a group of carnivorous plants that feed on macroinvertebrates. Its presence suggests a good condition.

Aquatic Guild: this metric measures the richness of the aquatic plants which tends to decrease as human disturbance increases.

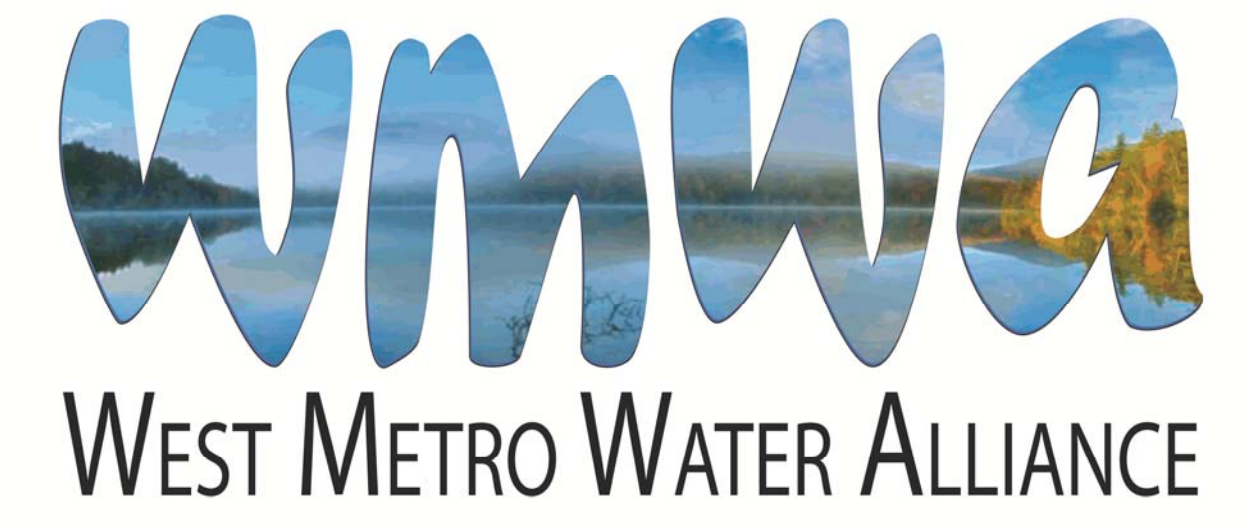
Persistent Litter: measures the abundance of certain plants whose leaves and stems decompose very slowly. The greater abundance means more nutrients are tied up in undecomposed plants. This will increase with increased disturbance.

SCORING SUMMARY

Invertebrates	Vegetation
5-11 Poor	7-15 Poor
12-18 Moderate	16-25 Moderate
19-25 Excellent	26-35 Excellent

Elm Creek Watershed Wetlands Monitored in 2016

Crosscheck scores in RED	Macroinvertebrate		Vegetation	
	Score	Grade	Score	Grade
1 Elm Creek Park Preserve (Dayton)	14	D	17	D
CHP-1 Crow Hassan Park	22/22	B/B	19/17	C/D
CHP-2 Crow Hassan Park	22	B	17	D
CHP-3 Crow Hassan Park	16	C	11	F



2016 ANNUAL REPORT

BACKGROUND

In 2006 the Shingle Creek and West Mississippi Watershed Management Commission's Education and Public Outreach Committee (EPOC) invited the Education Committee of the Bassett Creek Watershed Management Commission to partner in developing joint education and outreach activities. Since that time this voluntary partnership has grown to include the Elm Creek Watershed Management Commission, the Three Rivers Park District, Hennepin County Department of Environment and Energy, and the Freshwater Society. The WMOs are designated as "members," the latter three organizations as "partners."

This alliance, the West Metro Water Alliance (WMWA), grew from a recognition that the individual organizations have many common education and public outreach goals and messages that could be more efficiently and effectively addressed and delivered collaboratively and on a wider scale.

MEETINGS

WMWA meets monthly, as needed, on the second Tuesday, at Plymouth City Hall. Member representatives include Laura Jester, Administrator, Bassett Creek WMC; Doug Baines, Dayton, Elm Creek WMC; and Shelley Marsh, Brooklyn Center, and Ben Scharenbroich, Plymouth, Shingle Creek and West Mississippi WMCs. Partner attendees have included Denis Hahn, Three Rivers Park District; Mary Karius, Hennepin County; and Peggy Knapp, Freshwater Society. Other attendees include Mary Anderson, Sharon Meister, Tracy Leavenworth, and Jenny Schaust, Watershed PREP Educators; Dawn Pape, Lawn Chair Gardener; Michaela Neu and Tammy Schmitz, Mississippi WMO; and Dave Dahle, Eden Prairie. Diane Spector, Wenck Associates, serves as technical support for WMWA, and Amy Juntunen and Judie Anderson, JASS, serve as administrative support. In 2016 eleven meetings were held. All WMWA member Commissioners are welcome to attend meetings.

THE WMWA PROGRAM

Goals of the WMWA program are to:

- Inform public about the watershed organizations and their programs.
- Provide useful information to public on priority topics.
- Engage public and encourage positive, water-friendly behaviors.

Two informational pieces have been developed by WMWA to support these goals. The *10 Things You Can Do Brochure* targets the general public. The brochure is distributed at all venues where the Commissions or member cities have a presence and also in the Watershed PREP classrooms. It is also available on the websites of the WMO member cities.

The *Maintain Your Property the Watershed Friendly Way* handbook targets small businesses, multi-family housing properties, and common interest communities such as homeowners' associations. It contains tips for specifying and hiring turf and snow maintenance contractors, and includes checklists for BMP inspections.

WATERSHED PREP

Watershed PREP is a program of WMWA, and stands for Protection, Restoration, Education, and Prevention. 2016 was the fourth year of the program. Three contract educators with science education backgrounds are shared between the member watersheds. The focus of the program is two-fold - to present water resource-based classes to fourth grade students and to provide education and outreach to citizens, lake associations, other civic organizations, youth groups, etc. Goals of the program are 1) to have audiences gain a general understanding of watersheds, water resources and the organizations that manage them, and 2) to have audiences understand the connection between actions and water quality and water quantity. The ultimate goal is to make this program available to all fourth graders in the four WMWA watersheds and to other schools as contracted.

Fourth Grade Program. Three individual lessons meeting State education standards have been developed. **Lesson 1***, What is a Watershed and Why do we care?,* provides an overview of the watershed concept and is specific to each school's watershed. It describes threats to the watershed. **Lesson 2,** *Water Cycle - More than 2-dimensional!,* describes the movement and status of water as it travels through the water cycle. **Lesson 3,** *Stormwater Walk,* investigates movement of surface water on schools grounds.

In 2016, 127 classes totaling 3,374 students attended lessons 1 and 2 (compared to 149 and 4,042, respectively in 2015, compared to 78 and 1,373, respectively, in 2014, and 37 and 931, respectively, in 2013.) *Appendix A* details the students reached in lessons 1 and 2.

Community Education and Outreach. The PREP educators also provided outreach at ten community and school events. Outreach activities are also described in *Appendix A.*

UPDATED WORK PLAN

In 2015 the WMWA Work Plan was updated to reflect current practices. The last plan, created in 2010, had become outdated. The updated Work Plan identified the following activities:

1. Facilitate information availability and sharing.
2. Reschedule professional opinion survey to measure knowledge and attitudes about water resources to 2019.
3. Provide Coordinated Communication, Media Relations, and Information Sharing that more closely parallels what the NPDES Permit education and public outreach minimum measure require. Components include identifying priority issues every year, developing a communications plan that identifies educational goals by stakeholder, establishing measurable goals, and identifying responsible parties.
4. Develop county-wide or regional activities. At this time WMWA does not have the capacity to undertake these activities.
5. Pursue and obtain funding for education and public outreach activities.
6. Support and expand in scope and reach the Watershed PREP program.

WMWA's 2016 and 2017 budgets reflect these activities and were approved by the members on March 10, 2015 and March 8, 2016, respectively. The budgets are included in this report as *Appendix B*.

SPECIAL PROJECT

At WMWA's request, Metro Blooms/Blue Thumb submitted a proposal for a project that would encourage residents to replace impervious surface and turf grass with native plantings to benefit clean water by reducing stormwater runoff. The project includes the additional benefit of creating habitat for pollinators. An agreement between Metro Blooms and the Shingle Creek Commission, as fiscal agent, to move the project forward was approved.

Phase one of the project began with creation of a name, tag line and logo. The project was promoted in the Blue Thumb space at the State Fair where the public voted to name the campaign, *Pledge to Plant for Pollinators and Clean Water.*

Phase two included a roll out of the Pledge campaign on the Metro Blooms and WMWA websites where citizens can enter the square footage of their new plantings, creation of a Pledge to Plant banner for events, and a social media campaign that began in May 2016. The Campaign was promoted at the State Fair and other area events.

As of December 31, 2016, over 250 people had submitted the Pledge online covering approximately 25 acres, although several submissions did not specify an area to be planted, so it may be more. The total includes a few larger prairie restoration projects. Most of the Pledges come from the metro area, but Pledges have been received from Oklahoma, Arkansas, Missouri, Kansas, Ohio, Wisconsin, Indiana and California.

RAINGARDEN WORKSHOPS

In 2016, three Green Yard/Raingarden Workshops, hosted by WMWA member cities and presented by Metro Blooms were held. Workshops took place in Plymouth, Champlin, and Brooklyn Park. Attendees learned about raingardens and other practices, like stormwater recapture and reuse with rain barrels, diversion of downspouts away from impervious surfaces, and use of pervious pavers for driveways and patios.

WMWA Website

A new website, www.westmetrowateralliance.org, went live in January 2016. The website serves as a repository for documents and information for access by member cities and citizens, lists local events WMWA is participating in and/or otherwise promoting, stores Watershed PREP information for schools, and collects information for the Pledge to Plant campaign.

2016 Marketing Activity

Water Links. The members and their partners contribute to the WMWA eNewsletter *Water Links*, which is published by the Hennepin County Department of Environment and Energy. Three issues were published in 2016. Articles included seasonal topics such as Environmentally Friendly Lawn Care, Managing Fall Yard Waste, and Snow and Ice control, as well as project updates including grants received, restoration projects, city and watershed events, and the new buffer law.

*Seed Packets***.** One of the priority messages in 2016 was the role of native vegetation in improving stormwater infiltration and reducing other negative environmental impacts. To help promote this message, WMWA and the member Commissions handed out 360 packets of native seeds at community events and in Watershed PREP classrooms. A short educational message was printed on the seed packets.

Plymouth Home Expo. Bassett Creek, Shingle Creek, and Elm Creek booths were combined into a large area and included a WMWA focus area at the 2016 Expo, April 8 and 9. There were over 120 direct contacts at the booths. A "Planting in native clay soil" handout was available at the Shingle Creek and Elm Creek booths and doggy-doo bags were provided at the Bassett Creek booth. Over 900 residents visited the event.

Social Media. In May 2016 WMWA contracted with Dawn Pape, Lawn Chair Gardener, LLC, to create a social media campaign for the Pledge to Plant campaign and WMWA in general on Facebook and Twitter. As of December 31, 2016, the WMWA Facebook page had 88 likes and the Twitter page had 37 followers. The most well-received posts had nearly 500 engagements.

To learn more about WMWA, contact:
Diane Spector, Wenck Associates, 763.479.4280, dspector@wenck.com
or Amy Juntunen, JASS, 763.553.1144, amy@jass.biz

APPENDIX

Lesson 1: What is a Watershed and Why do we Care?

	Date	School	School District	City	Watershed	# of Classes	# of Students	Funded By
1	1/12	Shirley Hills Primary	Westonka	Mound	Minnehaha	1	25	PSC Trial
2	1/25	St. Alphonsus	Parochial	Brooklyn Ctr	Shingle	1	30	WMWA
3	1/26	Hilltop Primary	Westonka	Minnetrista	Minnehaha	3	90	PSC Trial
4	2/5	Lakeview Elementary	Robbinsdale	Robbinsdale	Shingle	3	69	WMWA
5	2/8	Palmer Lake	Osseo	Brooklyn Park	Shingle	4	80	WMWA
6	2/22	Hassan	Elk River	Rogers	Elm	5	124	WMWA
7	2/23	Zachary Lane Elementary	Robbinsdale	Plymouth	Bassett	3	78	WMWA
8	3/9	Forest Elementary	Robbinsdale	Crystal	Shingle			WMWA
9	3/11	Good Shepherd	Parochial	St. Louis Park	Bassett	2	50	WMWA
10	3/15	Sacred Heart	Parochial	Robbinsdale	Shingle	1	20	WMWA
11	3/17	Gleason Lake	Wayzata	Plymouth	Minnehaha	2	48	Plymouth
12	3/22	Oakwood	Wayzata	Plymouth	Minnehaha	4	110	Plymouth
13	3/24	Plymouth Creek	Wayzata	Plymouth	Bassett	5	115	WMWA
14	4/5	Mary Queen Of Peace	Parochial	Rogers	Elm	1	8	WMWA
15	4/27	Rush Creek	Osseo	Maple Grove	Elm	7	196	WMWA
16	5/2	Earle Brown Elementary	Brooklyn Center	Brooklyn Ctr	W. Miss	6	156	WMWA
17	5/12	Kimberly Lane	Wayzata	Plymouth	Bassett	4	104	WMWA
18	6/7	St. Vincent de Paul School	Parochial	Brooklyn Park	W. Miss	2	48	WMWA
19	10/5	Basswood Elementary	Osseo	Maple Grove	Elm	6	171	WMWA
20	10/5	FAIR School	Robbinsdale	Crystal	Shingle	4	108	WMWA
21	10/12	Rice Lake	Osseo	Maple Grove	Elm	4	114	WMWA
22	10/13	Champlin Brooklyn Park Acade	Anoka-Hennepin	Champlin	W. Miss	5	148	WMWA
23	10/14	Rogers Elementary School	Elk River	Rogers	Elm	10	265	WMWA
24	10/17	Oxbow Creek Elementary	Anoka-Hennepin	Champlin	W. Miss	6	179	WMWA
25	10/25	School of Engineering and Arts (SEA)	Robbinsdale	Golden Valley	Bassett	3	78	WMWA
26	10/27	Woodland Elementary	Osseo	Brooklyn Park	W. Miss	4	123	WMWA
27	11/21	Monroe Elementary	Anoka-Hennepin	Brooklyn Park	W. Miss	4	118	WMWA
28	11/21	Sonnesyn Elementary	Robbinsdale	New Hope	Shingle	2	75	WMWA
29	12/20	Robbinsdale Spanish Imm.	Robbinsdale	New Hope	Bassett	5	120	WMWA
30	Conflict	Jackson Middle School (8th gr.) Expert day	Anoka-Hennepin		W. Miss			WMWA
31		Birchview	Wayzata		Bassett			WMWA
32		Sunset Hill	Wayzata		Bassett			WMWA
33		New Millennium	Mpls		Bassett			WMWA
34	9/27	Weaver Lake Science Math & Tech	Osseo	Maple Grove	Elm	?	?	WMWA
35		Elm Creek Elementary	Osseo		Elm			WMWA
36		Meadow Lake	Robbinsdale		Shingle			WMWA
37		Noble Academy	Charter		W. Miss			WMWA
					Total:	**107**	**2850**	

Lesson 2: The Incredible Journey

Date	School	School District	Watershed	# of Classes	# of Students
16-17 Feb	Palmer Lake	Osseo	Shingle	4	82
26-27 Apr	Rush Creek	Osseo	Elm	7	196
16-May	Earle Brown	Brooklyn Center	W. Miss	6	156
5-Apr	Mary Queen of Peace	Parochial	Elm	1	15
21-Nov	Sonnesyn Elementary	Robbinsdale	Shingle	2	75
			Total	**20**	**524**

Other

Date	Event	Location	Watershed	# of Attendees
5/24	Basswood Science Night	Maple Grove	Elm Creek	
4/8	Plymouth Home & Garden	Plymouth	BC, SC, EC	1100
5/24	Fernbrook Nature Night	Maple Grove	Elm Creek	
7/28	Plymouth Kids Fest	Plymouth	BC, SC, EC	
4/16	Brooklyn Center Clean Up	Brooklyn Center		
	HC Nature Fest			
6/4	New Hope City Days	New Hope	SC	
9/17	New Hope Farmers Market	New Hope	SC	
9/20	Coon Rapids Dam TRPD Nature	Brooklyn Park	WM	
9/29	HC Enviro Edu Conversation	Brooklyn Center		

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	**WMWA 2015 Operating Budget** (mirrors 2014 budget)														
2												**Actual 2014**			
3	**Revenue**			**BC**	**EC**	**SC**	**WM**	**Partners**	**Total**		**RECD**	**Pending**	**Total**		
4		Member Reimbursement Admin/Tech Servs													
5			Routine tasks, coordinate newsletter, etc.	3,750	3,750	3,750	3,750		15,000		15,260.48	145.80	15,114.68		
6			Annual Report, Newsletter, Social Media												
7															
8		Member Reimbursement - Special Projects		1,500	1,500	1,500	1,500		6,000		6,000.00		6,000.00		
9															
10		Watershed PREP		4,500	4,500	4,500	4,500		18,000		9,244.72	774.00	10,018.72		
11			Fourth Grade Initiative												
12			Public Outreach												
13															
14		Green Yard Workshops - Metro Blooms		3,000	3,000	3,000	3,000	2,500	14,500		11,250.00		11,250.00		
15															
16		***Total Revenue***		***9,750***	***9,750***	***9,750***	***9,750***	***0***	***39,000***		***41,755.20***	***628.20***	***42,383.40***		
17															
18	**APPROVED 2016 BUDGET**											**Actual 2015**			
19	**Revenue**			**BC**	**EC**	**SC**	**WM**	**Partners**	**Total**		**Income**	**Expense**	**Balance**		
20		Member Reimbursement Admin/Tech Servs													
21			Routine tasks, coordinate newsletter, etc.	3,750	3,750	3,750	3,750		15,000		*15,000*	*15,691*	*691*		
22			Annual Report, Newsletter, Social Media												
23															
24		Member Reimbursement - Special Projects		1,500	1,500	1,500	1,500		6,000		*6,000*	*6,000*	*0*		
25											*from 2014 budget carryover; 2015*				
26											*budget is unspent*				
27															
28		Watershed PREP		4,500	4,500	4,500	4,500		18,000		*18,000*	*11,840*	*6,160*		
29			Fourth Grade Initiative									*includes MWMO mini grant*			
30			Public Outreach									*expense outside grant*			
31															
32		Green Yard Workshops - Metro Blooms		3,000	3,000	3,000	3,000	2,500	14,500		*7,800*	*7,800*	*0*		
33		*(not included in services agreement)*													
34															
35		***Total Revenue***		***12,750***	***12,750***	***12,750***	***12,750***	***2,500***	***53,500***		***46,800***	***41,331***	***5,469***		
36															
37	The cost to develop written materials such as the *Ten Things* brochure is shared by the members. Each watershed														
38	organization and/or member city is invoiced for the number of items they purchase for their use/distribution.														

Save the Date!

Plan to attend this Minnesota Department of Agriculture
Sustainable Agriculture Demonstration Field Day at the Patnode Dairy Farm in Hennepin County!

Three-Crops in Two Years for Farm Profit, Soil Health & Water Quality: Winter Rye after Corn Silage Managed for Forage

August 10, 2016 • 10:30 AM to 2:00 PM

Patnode Dairy Farm • 23301 County Rd 50, Corcoran, MN 55340

This well run family dairy farm of 80 cows and 400 acres is currently adding a new free stall for more capacity and a manure storage structure. Learn about successes and challenges of using cover crops for improved productivity, water holding capacity and keeping soil and nutrients where they belong –on your fields! As a cover cop the Rye protected the soil all fall, winter and spring by keeping living roots in the soil and providing soil cover. As silage the Rye produced a low-cost, quality feed (14.5% CP, 64.3% TDN, RFV of113, and RFQ of 188).

Lunch provided by the Corcoran Locker • Please RSVP for a meal count by August 8th to:
Daryl Patnode (763.464.6540 / patnode4@gmail.com) -- or --
Karl Hakanson, UM Extension (612.624.7948 / khakanso@umn.edu)

An informal, informative event with plenty of time for discussion!

Soil Health and Successes the Challenges of Cover Crops
-- Glen Borgerding CCA, and James Schroepfer, B.S. Agronomy, Ag Resource Consulting, Inc.

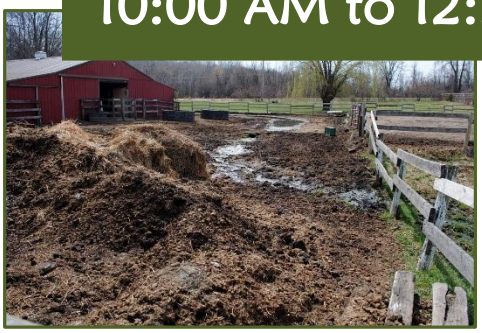
Our experience growing, harvesting and feeding Winter Rye on our dairy farm
-- Daryl, Lori and Andrew Patnode

Sustainable Ag. Demonstration Program --Alatheia Stenvik, MN Dept. of Ag. (MDA), will highlight this great program for farmers to try out new and innovative practices.

Sponsored by:

AG RESOURCE CONSULTING INC. | sfa FARMER-to-FARMER NETWORK | MINNESOTA DEPARTMENT OF AGRICULTURE | UNIVERSITY OF MINNESOTA EXTENSION

Horse Stable Site Assessment and Land Management Techniques Field Day
10:00 AM to 12:30 PM ☼ Saturday October 10th



Mud, manure, standing water … not suitable for horse or human … leads to runoff pollution … not good for local waters!

Foxwood Farm ☼ David & Joanie Stene
15120 S. Diamond Lake Rd., Dayton, MN

You are invited to a field day about managing horse facilities --manure and pastures-- in ways that keep horses, people --and local waters-- clean and healthy! A number of projects, including clean water diversions, gutters and manure management techniques, are underway and will be described. It will be informal and informative event with plenty of time for discussion and interaction. Meet fellow horse enthusiasts *--a great networking opportunity!* Light refreshments provided. This is a ***free*** event.

Please RSVP by October 8th to Karl Hakanson, University of MN Extension, Hennepin County 612.624.7948 / khakanso@umn.edu, or Joanie 763.242.4877 / jmastene@gmail.com

- - - AGENDA - - -

10:00 to 10:15: Welcome and Introductions

10:15 to 10:45: Joanie Stene, Horsemaster and Certified Instructor, will talk about the process of improving her wet, muddy, hard to manage facilities.

10:45 – 11:15: Horses, Natural Resources and Water Quality

Equine operations and the water quality connection. Discussion led by Jim Kujawa, Senior Environmentalist, Hennepin Co. Environment & Energy

11:15 to 11:45: Manure Management

Manure is not a waste … unless it ends up in our waters!
Discussion led by Karl Hakanson, U of MN Extension Hennepin County.

11:45 to 12:30: Pasture Management

Grow more of your own high quality, economical feed.
Discussion led by U of MN equine PhD. Student Amanda Grev.

12:30: Adjourn

Elm Creek Watershed Management Commission - 2016 -2017 Operating Budgets

	A	B	C	D	AF	AQ
3					**2016 Budget**	**2017 Budget**
4	**GENERAL OPERATING BUDGET**					
5	**Expenses**					
6		Administrative			90,000	90,000
7			Watershed-wide TMDL Admin (Commission in-kind)		24,406	
8		Grant Writing			5,100	5,000
9		Website			6,000	6,000
10		Legal Services			2,000	2,000
11		Audit			5,000	5,000
12		Insurance			3,800	3,800
13		Contingency			2,000	2,000
14				***Subtotal***	***138,306***	***113,800***
15		Project Reviews				
16			Technical - HCES		105,500	98,000
17			Technical Support - Consultant		6,000	15,000
18			Admin Support		11,000	11,000
19					***122,500***	***124,000***
20		Wetland Conservation Act				
21			WCA Expense - HCES		12,500	12,000
22			WCA Expense - Legal		500	500
23			WCA Expense - Admin		2,000	2,000
24				***Subtotal***	***15,000***	***14,500***
25		Water Monitoring				
26			Stream Monitoring			
27			Stream Monitoring - USGS		23,500	24,177
29			Extensive Stream Monitoring		7,200	7,000
30			DO Longitudinal Survey		500	500
31			Gauging Station - Elec Bill		195	220
32			Rain Gauge Network		100	100
33			Lake Monitoring			
34			Lake Monitoring - CAMP		1,650	1,200
35			Lake Monitoring - TRPD			
36				Sentinel Lakes	3,100	2,470
37				Additional lake	600	618
38				Aquatic Vegetation Surveys	1,000	1,029
39			Source Assessment			2,000
40			Watershed-wide TMDL - Followup - TRPD, Admin			10,000
41			Wetland Monitoring - WHEP		4,000	4,000
42			Stream Health - SHEP		6,000	0
43				***Subtotal***	***47,845***	***53,314***
44		Education				
45			Education - City/Citizen Programs		6,000	4,000
47			WMWA General Admin		4,000	4,000
48			WMWA Implementa Activities incl Watershed PREP		6,000	6,000
50			Rain Garden Workshop/Intensive BMPs		3,000	2,000
51			Education Grants		3,000	2,000
52			Macroinvertebrate Monitoring-River Watch		6,000	6,000
53			Ag Specialist		2,000	
54				***Subtotal***	***30,000***	***24,000***
59		Management Plan				
60			Plan Amendments		5,000	5,000
61			Local Plan Review - due two years after Commission Plan adopti		3,000	2,000
62			Contribution to 4th Gen Plan - consider $10,000/set-aside beginning 2020			
63				***Subtotal***	***8,000***	***7,000***

Elm Creek Watershed Management Commission - 2016 -2017 Operating Budgets

	A	B	C	D	AF	AQ
3					**2016 Budget**	**2017 Budget**
64		Special Projects				
66			Projects ineligible for ad valorem		50,000	50,000
68			Upper and South Metro Miss TMDL		1,000	0
70			Studies, Project Identification, Subwatershed Assessments		35,000	35,000
72				***Subtotal***	***86,000***	***85,000***
74						
75		Contingency			0	0
76				***Subtotal***	***0***	***0***
77		***Total Operating Expense (lines 14,19,24,43,54,63,72,76)***			***447,651***	***421,614***
78						
79	**Revenue**					
80		CIPs - Ad Valorem				
81		Project Review Fees			100,000	100,000
82		Water Monitoring - TRPD Co-op Agmt			6,000	6,500
84		WCA Fees			5,000	8,000
85		Forfeited/Reimbursed Sureties/Reimbursement from LGUs			1,500	0
86		Membership Dues			215,360	219,700
87		Watershed-wide TMDL				
88		Interest Income			80	100
89		Miscellaneous Income				
90						
91		From (To) Cash Reserves				
92				***Total Operating Revenue (lines 80-91)***	***327,940***	***334,300***
93	**TOTAL GENERAL OPERATING BUDGET (lines 77, 92)**				**119,711**	**87,314**
94						
95	***Cash on hand, unencumbered***				***194,196***	***106,882***
96						
97	**ASSIGNED FUND BALANCES**					
98		**Capital Projects**				
99			**Revenue**			
100				Ad Valorem Levy Funds	250,000	492,812
101			**Expense**			
102				Commission Cost Share	250,000	492,812
103				Administrative Expense	3,000	4,000
104				***Total Capital Projects***	***3,000***	***4,000***
105						
106		**Third Generation Management Plan**				
107			Member Assess - Contribution to Reserves			
108			Encumbered from General Fund			
109			Less Expenses			
110				***Total Third Gen Plan***		
112						
113		**WCA - Beginning Accumulated**				
114			WCA Activity - Current Year			
115				***WCA - Year-End Accumulated***		
116						
117		~~**Assigned for capital improvement projects**~~				
118		**Assigned for ~~capital improvement~~ projects, studies**				
119			Less Expenses			
120				***Total ~~CIPs~~, Projects, Studies***		
121						
131	***Total Assigned Fund Balances (lines 104, 110, 115, 120)***					
132						
133	**TOTAL CASH ON HAND (lines 95, 131)**					

Elm Creek Watershed Management Commission
2016 - 2017 Member Assessments

2016	2015 Taxable Market Value	2016 Budget Share		Increase over Prev Year	
		%age	Dollars	%age	Dollars
Champlin	409,399,869	4.06%	8,741.51	3.82%	322
Corcoran	679,629,691	6.74%	14,511.46	9.43%	1,250
Dayton	467,103,289	4.63%	9,973.60	4.24%	405
Maple Grove	5,431,286,657	53.85%	115,968.92	1.27%	1,451
Medina	805,089,215	7.98%	17,190.28	4.96%	812
Plymouth	817,567,896	8.11%	17,456.72	9.45%	1,508
Rogers	1,476,090,709	14.63%	31,517.51	1.98%	612
Totals	**10,086,167,326**	**100.00%**	**215,360.00**	**3.04%**	**6,360**

2017	2016 Taxable Market Value	2017 Budget Share		Increase over Prev Year	
		%age	Dollars	%age	Dollars
Champlin	410,505,694	3.85%	8,458.23	-3.24%	-283
Corcoran	709,731,668	6.66%	14,623.61	0.77%	112
Dayton	501,487,424	4.70%	10,332.86	3.60%	359
Maple Grove	5,651,956,239	53.01%	116,455.30	0.42%	486
Medina	891,170,325	8.36%	18,362.05	6.82%	1,172
Plymouth	905,845,273	8.50%	18,664.42	6.92%	1,208
Rogers	1,592,062,304	14.93%	32,803.53	4.08%	1,286
Totals	**10,662,758,927**	**100.00%**	**219,700.00**	**2.02%**	**4,340**

ELM CREEK WATERSHED
MANAGEMENT COMMISSION

Financial Statements and
Supplemental Information
Year Ended
December 31, 2016

ELM CREEK WATERSHED MANAGEMENT COMMISSION

Table of Contents

INDEPENDENT AUDITORS' REPORT

Board of Directors
Elm Creek Watershed Management Commission
Plymouth, Minnesota

Report on the Financial Statements

We have audited the accompanying financial statements of the governmental activities and major fund of the Elm Creek Watershed Management Commission (the Commission), as of and for the year ended December 31, 2016, and the related notes to the financial statements, which collectively comprise the Commission's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

The Commission's management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Commission's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a reasonable basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities and major fund of the Commission as of December 31, 2016, the respective changes in the financial position thereof, and the budgetary comparison for the General Fund for the year then ended in accordance with accounting principles generally accepted in the United States of America.

OTHER MATTERS

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis (MD&A) be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. The Commission has not presented the MD&A that accounting principles generally accepted in the United States of America have determined necessary to supplement, although not required to be part of, the basic financial statements.

Prior Year Comparative Information

We have previously audited the Commission's financial statements for the year ended December 31, 2015 and, in our report dated April 6, 2016, we expressed an unqualified opinion on the financial statements of the governmental activities and major fund. The financial statements include prior year partial comparative information, which does not include all of the information required in a presentation in conformity with accounting principles generally accepted in the United States of America. Accordingly, such information should be read in conjunction with the Commission's financial statements for the year ended December 31, 2015, from which such information was derived.

Other Reporting

We have also issued our report dated April --, 2017, on our consideration of the Commission's internal control over financial reporting and our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance.

April 5, 2017

BASIC FINANCIAL STATEMENTS

Elm Creek Watershed Management Commission

Statement of Net Position and
Governmental Fund Balance Sheet
As of December 31, 2016
(with Partial Comparative Actual Amounts as of December 31, 2015)

	Governmental Activities	
	2016	2015
Assets		
Cash and investments	$ 524,931	$ 517,502
Restricted cash	46,000	-
Accounts receivable	1,596	12,680
Total assets	$ 572,527	$ 530,182
Liabilities and Fund Balances/Net Position		
Liabilities		
Accounts payable	$ 42,733	$ 56,617
Financial and administrative guarantee fee deposits	46,000	-
Total liabilities	88,733	56,617
Fund balances/net position		
Restricted fund balances/net position		
Restricted for capital improvement projects	129,048	125,342
Assigned fund balances/net position		
Assigned for capital projects, studies	27,832	34,316
Unrestricted/unassigned fund balances/net position	326,914	313,907
Total assigned or unrestricted fund balances/net position	354,746	348,223
Total fund balances/net position	483,794	473,565
Total liabilities and fund balances/net position	$ 572,527	$ 530,182

See notes to basic financial statements

Elm Creek Watershed Management Commission

Statement of Activities and
Governmental Fund Revenues, Expenditures, and
Changes in Fund Balances/Net Position
Budget and Actual
Year Ended December 31, 2016
(with Partial Comparative Actual Amounts for the Year Ended December 31, 2015)

	Governmental Activities			
	2016			2015
	Original and Final Budget	(Audited)	Over (Under)	(Audited)
Revenue				
General				
Member assessments	$ 215,360	$ 215,360	$ -	$ 209,000
Property taxes (ad valorem)	-	249,866	249,866	131,570
Charges for services - project and wetland review fees	105,000	70,882	(34,118)	79,690
Reimbursements	6,000	5,133	(867)	18,680
Interest income	80	915	835	83
Miscellaneous	1,500	-	(1,500)	-
Total revenue	327,940	542,156	214,216	439,023
Expenditures				
Current				
Administration	122,406	102,753	(19,653)	90,992
Education	30,000	18,124	(11,876)	19,367
Insurance	3,800	1,442	(2,358)	2,349
Professional fees	7,000	5,541	(1,459)	4,964
Technical support	122,500	99,910	(22,590)	110,648
Water monitoring	47,845	34,785	(13,060)	39,347
Watershed programs	106,100	15,032	(91,068)	43,240
Watershed plan	8,000	1,698	(6,302)	9,165
Capital outlay				
Improvement projects	-	252,642	252,642	3,291
Total expenditures	447,651	531,927	84,276	323,363
Net change in fund balances/net position	$ (119,711)	10,229	$ 129,940	115,660
Net fund balances/net position				
Beginning of year		473,565		357,905
End of year		$ 483,794		$ 473,565

See notes to basic financial statements

Elm Creek Watershed Management Commission

Notes to Financial Statements
December 31, 2016

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Organization

The Elm Creek Watershed Management Commission is formed under a Joint Powers Agreement, as amended according to Minnesota Statutes Sections 103B.201 through 103B.255 and Minnesota Rules Chapter 8410 relating to Metropolitan Area Local Water Management and its reporting requirements. Elm Creek Watershed Management Commission was established in February, 1973 to protect and manage the natural resources of the Elm Creek Watershed.

The Commission is considered a governmental unit, but is not a component unit of any of its members. As a governmental unit, the Commission is exempt from federal and state income taxes.

Reporting Entity

A joint venture is a legal entity resulting from a contractual agreement that is owned, operated, or governed by two or more participants as a separate and specific activity subject to joint control, in which the participants retain either an ongoing financial interest or an ongoing financial responsibility. The Commission is considered a joint venture.

As required by accounting principles generally accepted in the United States of America, these financial statements include the Commission (the primary government) and its component units. Component units are legally separate entities for which the primary government is financially accountable, or for which the exclusion of the component unit would render the financial statements of the primary government misleading. The criteria used to determine if the primary government is financially accountable for a component unit include whether or not the primary government appoints the voting majority of the potential component's unit board, is able to impose its will on the potential component unit, is in a relationship of financial benefit or burden with the potential component unit, or is fiscally depended upon by the potential component unit. Based on these criteria, there are no component units required to be included in the Commission's financial statements.

Government-Wide and Fund Financial Statement Presentation

The government-wide financial statements (the Statement of Net Position and the Statement of Activities) report information about the reporting government as a whole. These statements include all the financial activities of the Commission. The Statement of Activities demonstrates the degree to which the direct expenses of a given function are offset by program revenues. Direct expenses are those that are clearly identifiable with a specific function or segment. Program revenues include charges to customers or applicants who purchase, use, or directly benefit from goods, services, or privileges provided by a given function or segment, and grants or contributions that are restricted to meeting the operational or capital requirements of a particular function or segment. Other internally directed revenues are reported instead as general revenues.

Measurement Focus, Basis of Accounting and Financial Statement Presentation

The government-wide financial statements are reported using the economic resources measurement focus and the accrual basis of accounting. Revenues are recorded when earned and expenses are recorded when a liability is incurred, regardless of the timing of related cash flows. Grants and similar items are recognized as revenue as soon as eligibility requirements imposed by the provider have been met.

Elm Creek Watershed Management Commission

Notes to Financial Statements (continued)
December 31, 2016

NOTE 1 - SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Measurement Focus, Basis of Accounting and Financial Statement Presentation (Continued)

Governmental fund financial statements are reported using the current financial resources measurement focus and the modified accrual basis of accounting. Revenues are recognized as soon as they are both measurable and available. Revenues are considered to be available when they are collectible within the current period or soon enough thereafter to pay liabilities of the current period. For this purpose, the Commission considers revenue to be available if they are collected within 60 days of the end of the current fiscal period. Expenditures generally are recorded when a liability is incurred, as under accrual accounting.

Fund Financial Statement Presentation

The accounts of the Commission are organized on the basis of funds, each of which is considered a separate accounting entity. The operations of each fund are accounted for with a separate set of self-balancing accounts that comprise its assets, liabilities, fund equity, revenue, and expenditures. Resources are allocated to, and accounted for in individual funds based on the purposes for which they are to be spent and the means by which spending activities are controlled. The resources of the Commission are accounted for in one major fund:

- **General Fund (Governmental Fund Type) –** This fund is used to receive dues and miscellaneous items which may be disbursed for any and all purposes authorized by the bylaws of the Commission.

Typically, separate fund financial statements are provided for Governmental Funds. However, due to the simplicity of the Commission's operation, the Governmental Fund financial statements have been combined with the government-wide statements.

Budgets

The amounts shown in the financial statements as "budget" represent the budget amounts based on the modified accrual basis of accounting. A budget for the General Fund is adopted annually by the Commission. Appropriations lapse at year-end and encumbrance accounting is not used. Budgetary control is at the fund level.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Members' Contributions

Members' contributions are calculated based on the member's share of the taxable market value of all real property within the watershed to the total market value of all real property in the watershed.

Elm Creek Watershed Management Commission

Notes to Financial Statements (continued)
December 31, 2016

NOTE 1 - SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

Capital assets

The Commission follows the policy of expensing any supplies or small equipment at the time of purchase. The Commission currently has no capitalized assets.

Risk Management

The Commission is exposed to various risks of loss related to torts: theft of, damage to, and destruction of assets; error and omissions; and natural disasters. The Commission participates in the League of Minnesota Cities Insurance Trust (LMCIT), a public entity risk pool for its general property, casualty, and other miscellaneous insurance coverages. LMCIT operates as a common risk management and insurance program for a large number of cities in Minnesota. The Commission pays an annual premium to LMCIT for insurance coverage. The LMCIT agreement provides that the trust will be self-sustaining through member premiums and will reinsure through commercial companies for claims in excess of certain limits. Settled claims have not exceeded this commercial coverage in any of the past three years. There were no significant reductions in insurance coverage during the year ended December 31, 2016.

Receivables

The Commission utilizes an allowance for uncollectible accounts to value its receivables; however, it considers all of its receivables to be collectible as of December 31, 2016 and 2015.

Net Position

Net position represents the difference between assets and liabilities in the government-wide financial statements.

Prior Period Comparative Financial Information/Reclassification

The basic financial statements include certain prior year partial comparative information in total but not at the level of detail required for a presentation in conformity with accounting principles generally accepted in the United States of America. Accordingly, such information should be read in conjunction with the Commission's financial statements for the year ended December 31, 2015, from which the summarized information was derived. Also, certain amounts presented in the prior year data may have been reclassified in order to be consistent with the current year's presentation.

Elm Creek Watershed Management Commission

Notes to Financial Statements (continued)
December 31, 2016

NOTE 2 – ASSETS, LIABILITIES AND NET POSITION

A. Deposits

In accordance with applicable Minnesota Statutes, the Commission maintains a checking account authorized by the Commission.

The following is considered the most significant risk associated with deposits:

Custodial Credit Risk – In the case of deposits, this is the risk that in the event of a bank failure, the Commission's deposits may be lost.

Minnesota Statutes require that all deposits be protected by federal deposit insurance, corporate surety bond, or collateral. The market value of collateral pledged must equal 110 percent of the deposits not covered by federal deposit insurance or corporate surety bonds. Authorized collateral includes treasury bills, notes, and bonds; issues of U.S. government agencies; general obligations rated "A" or better; revenue obligations rated "AA" or better; irrevocable standard letters of credit issued by the Federal Home Loan Bank; and certificates of deposit. Minnesota Statutes require that securities pledged as collateral be held in safekeeping in a restricted account at the Federal Reserve Bank or in an account at a trust department of a commercial bank or other financial institution that is not owned or controlled by the financial institution furnishing the collateral. The Commission has no additional deposit policies addressing custodial credit risk.

At year-end, the Commission had no funds held in its bank account. All funds were transferred to their MBIA investment account. (see below)

B. Investments

At December 31, 2016 and 2015, the Commission held $570,931 and $517,502 (approximate cost and fair market value), respectively, in investments with MBIA in Minnesota 4M Holdings.

The 4M fund is an external investment pool not registered with the Securities Exchange Commission (SEC) that follows the same regulatory rules of the SEC under rule 2a7. The 4M Fund is a customized cash management and investment program for Minnesota public funds that is allowable under Minnesota Statutes. The fair value of the position in the pool is the same as the value of the pool shares.

Elm Creek Watershed Management Commission

Notes to Financial Statements (continued)
December 31, 2016

NOTE 2 – ASSETS, LIABILITIES AND NET POSITION (CONTINUED)

Investments are subject to various risks, the following of which are considered the most significant:

Custodial Credit Risk – For investments, this is the risk that in the event of a failure of the counterparty to an investment transaction (typically a broker-dealer) the Commission would not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. The Commission does not have a formal investment policy addressing this risk, but typically limits its exposure by purchasing insured or registered investments, or by the control of who holds the securities.

Credit Risk – This is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. Minnesota Statutes limit the Commission's investments to direct obligations or obligations guaranteed by the United States or its agencies; shares of investment companies registered under the Federal Investment Company Act of 1940 that receive the highest credit rating, are rated in one of the two highest rating categories by a statistical rating agency, and all of the investments have a final maturity of 13 months or less; general obligations rated "A" or better; revenue obligations rated "AA" or better; general obligations of the Minnesota Housing Finance Agency rated "A" or better; bankers' acceptances of United States banks eligible for purchase by the Federal Reserve System; commercial paper issued by United States corporations or their Canadian subsidiaries, rated of the highest quality category by at least two nationally recognized rating agencies, and maturing in 270 days or less; Guaranteed Investment Contracts guaranteed by a United States commercial bank, domestic branch of a foreign bank, or a United States insurance company, and with a credit quality in one of the top two highest categories; repurchase or reverse purchase agreements and securities lending agreements with financial institutions qualified as a "depository" by the government entity, with banks that are members of the Federal Reserve System with capitalization exceeding $10,000,000; that are a primary reporting dealer in U.S. government securities to the Federal Reserve Bank of New York; or certain Minnesota securities broker-dealers. The Commission's investment policies do not further address credit risk.

Concentration Risk – This is the risk associated with investing a significant portion of the Commission's investment (considered 5 percent or more) in the securities of a single issuer, excluding U.S. guaranteed investments (such as treasuries), investment pools, and mutual funds. The Commission does not have an investment policy limiting the concentration of investments.

Interest Rate Risk – This is the risk of potential variability in the fair value of fixed rate investments resulting from changes in interest rates (the longer the period for which an interest rate is fixed, the greater the risk). The Commission does not have an investment policy limiting the duration of investments.

Elm Creek Watershed Management Commission

Notes to Financial Statements (continued)
December 31, 2016

NOTE 3 – FUND EQUITY

The following fund balance classifications describe the relative strength of the spending constraints placed on the purposes for which resources can be used:

- Nonspendable fund balance – amounts that are not in a spendable form (such as inventory) or are required to be maintained intact;
- Restricted fund balance - amounts constrained to specific purposes by their providers (such as grantors, bondholders, and higher levels of government), through constitutional provisions, or by enabling legislation;
- Committed fund balance – amounts constrained to specific purposes by a government itself, using its highest level of decision-making authority; to be reported as committed, amounts cannot be used for any other purpose unless the government takes the same highest level action to remove or change the constraint;
- Assigned fund balance – amounts a government intends to use for a specific purpose; intent can be expressed by the governing body or by an official or body to which the governing body delegates the authority;
- Unassigned fund balance – amounts that are available for any purpose; these amounts are reported only in the general fund.

The Commission establishes (and modifies or rescinds) fund balance commitments by passage of an ordinance or resolution. This is typically done through adoption and amendment of the budget. A fund balance commitment is further indicated in the budget document as a designation or commitment of the fund. Assigned fund balance is established by the Commission through adoption or amendment of the budget as intended for specific purpose.

NOTE 4 – COMMITMENTS AND CONTRACTS

Minnesota Pollution Control Agency (MPCA) – Watershed-wide TMDL Project

During 2009, the MPCA contracted the Commission to conduct a water monitoring program of the Elm Creek watershed for a cost not to exceed $35,000. This contract was amended four times to add additional funds of $148,000 for phase II, $100,000 for phase III, $109,995 for phase IV, $16,500 for phase V and $58,495 for phase VI. Total cost to the MPCA not to exceed $467,990. The Commission has contracted Three Rivers Park District to perform the services in conjunction with this project. The Commission earned $12,680 during the year ended December 31, 2015, and incurred expenses of $15,032 and $12,680 during the years ended December 31, 2016 and 2015, respectively.

Restricted fund balance – capital improvement projects

During 2015, the Commission received $68,916 from tax levies that is to be used for the Tower Drive improvement project. During 2016, the Commission incurred expenses of $37 in project related costs. As of December 31, 2016, the city of Medina has yet to complete the project. The Commission will hold the funds of $66,890, amount of the levy, (less administrative costs) until completion.

During 2015, the Commission received $62,654 from tax levies that is to be used for the Elm Creek Dam rehabilitation project. During 2016, the Commission incurred expenses of $34 in project related costs. As of December 31, 2016, the city of Champlin has yet to complete the project. The Commission will hold the funds of $60,988, amount of the levy, (less administrative costs) until completion.

Elm Creek Watershed Management Commission

Notes to Financial Statements (continued)
December 31, 2016

Restricted fund balance – capital improvement projects (continued)

During 2015, the Commission agreed to support the city of Plymouth with certain water quality capital improvement projects. During 2016, the Commission received $249,866 from tax levies that is to be used for the Plymouth Elm Creek Restoration project. The Commission incurred $245,557 and $2,606 of costs associated with this project during the years ended December 31, 2016 and 2015, respectively. The Commission will hold the remaining funds of $1,703 (less administrative costs) until completion.

NOTE 5 – MEMBERS' DUES

Dues received from members were as follows:

	For Year Ended December 31			
	2016		2015	
	Amount	Percentage	Amount	Percentage
Champlin	$ 8,741	4.06 %	$ 8,420	4.03 %
Corcoran	14,511	6.74	13,261	6.35
Dayton	9,974	4.63	9,568	4.58
Maple Grove	115,969	53.85	114,518	54.79
Medina	17,190	7.98	16,378	7.84
Plymouth	17,457	8.11	15,949	7.63
Rogers	31,518	14.63	30,906	14.78
Total	$ 215,360	100.00 %	$ 209,000	100.00 %

OTHER REQUIRED REPORTS

INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS

Board of Directors
Elm Creek Watershed Management Commission
Plymouth, MN

We have audited, in accordance with the auditing standards generally accepted in the United States of America, the financial statements of the governmental activities and the major fund of the Elm Creek Watershed Management Commission (the Commission) as of and for the year ended December 31, 2016, and the related notes to the financial statements, which collectively comprise the Commission's basic financial statements, and have issued our report thereon dated April 5, 2017.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Commission's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Commission's internal control. Accordingly, we do not express an opinion on the effectiveness of the Commission's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or combination of deficiencies, in internal control such that there is a reasonable possibility that material misstatement of the financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses, as defined above. However, material weaknesses may exist that have not been identified. We did identify the following deficiencies in internal control that we consider to be significant deficiencies:

Because of the limited size of your office staff, your organization has limited segregation of duties. A good system of internal accounting control contemplates an adequate segregation of duties so that no one individual handles a transaction from inception to completion. While we recognize that your organization is not large enough to permit an adequate segregation of duties in all respects, it is important that you be aware of the condition.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Commission's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the result of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. Accordingly, this communication is not suitable for any other purpose.

April 5, 2017

INDEPENDENT AUDITORS' REPORT ON
MINNESOTA LEGAL COMPLIANCE

Board of Directors
Elm Creek Watershed Management Commission
Plymouth, Minnesota

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the governmental activities and major fund of the Elm Creek Watershed Management Commission (the Commission) as of and for the year ended December 31, 2016, and the related notes to the financial statements, which collectively comprise the Commission's basic financial statements, and have issued our report thereon dated April --, 2017.

The *Minnesota Legal Compliance Audit Guide for Other Political Subdivisions*, promulgated by the State Auditor pursuant to Minn. Stat. 6.65, contains six categories of compliance to be tested: contracting and bidding, deposits and investments, conflicts of interest, claims and disbursements, miscellaneous provisions, and tax increment financing. Our audit considered all of the applicable listed categories, except that we did not test for compliance in tax increment financing, because the Commission does not utilize tax increment financing.

In connection with our audit, nothing came to our attention that caused us to believe that the Commission failed to comply with the provisions of the *Minnesota Legal Compliance Audit Guide for Other Political Subdivisions.* However, our audit was not directed primarily toward obtaining knowledge of such noncompliance. Accordingly, had we performed additional procedures, other matters may have come to our attention regarding the Commission's noncompliance with the above referenced provisions.

This report is intended solely for the information and use of those charged with governance and management of the Pioneer-Sarah Creek Watershed Management Commission and the State Auditor and is not intended to be and should not be used by anyone other than these specified parties.

April 5, 2017