Elm Creek

Watershed Management Commission

2012 Annual Activity Report

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2012 Annual Activity Report

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

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We gratefully acknowledge the assistance of:
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James Fallon, U S Geological Service (USGS)
Brian Johnson, Metropolitan Council
Mary Karius, Hennepin County Department of Environmental Services (HCDES)
James Kujawa, Hennepin County Department of Environmental Services (HCDES)
Rich Brasch, Three Rivers Park District

Cover photograph:
Sally Strand, Plymouth

Annual Activity Report. This annual activities 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 2012.

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 current members are the cities of Champlin, Corcoran, Dayton, Maple Grove, Medina, Plymouth, and Rogers. The table in *Appendix 1* shows the names of the Commissioners appointed to serve in 2012.

Meetings. The Commissioners meet monthly on the second Wednesday at 11:30 a.m. at Maple Grove City Hall, 12800 Arbor Lakes Parkway. These 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.

Consultants. Also listed in *Appendix 1* 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 **Elm Creek Watershed** covers approximately 130.68 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 can 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%
Corcoran	36.09	28%
Dayton	25.06	19%
Maple Grove	26.37	20%
Medina	9.35	7%
Plymouth	4.45	3%
Rogers	26.27	20%

Watershed Management Plan. The Elm Creek Watershed Management Commission adopted its second generation *Comprehensive Watershed Management Plan* on December 8, 2004. The second generation Management Plan includes a section that identifies a number of goals and policies that conform to the overall purpose specified in Minnesota Statutes Section 103B.201. These goals and policies were developed to preserve and use natural water storage and retention systems. They address issues related

to water quantity, water quality, recreation, fish and wildlife, enhancement of public participation, information and education, and management of the public ditch system, groundwater, shorelands, wetlands, and soil erosion.

In 2008, the Commission adopted a Minor Plan Amendment revising its Water Quality standards. In 2012, the Commission adopted a Major Plan Amendment revising, updating and prioritizing projects in its Capital Improvement Program and extending the anniversary date of the plan from July 2013 to October 2014. The plan is available for viewing at http://www.elmcreekwatershed.org/mgmtplan.shtml.

Local Watershed Management Plans. Every member community must prepare and adopt its own water management plan. Local plans must comply with MN Statutes, Sec. 103B.235 and MN Rules 8410.0160 and 8410.0170 regarding local plan content and the requirements of the Commission's Watershed Management Plan. The status of member communities' local plans at December 31, 2012, is shown below.

Table 2:
Status of Local Plans

Community	Status
Champlin	Approved June 10, 2009.
Corcoran	Approved June 10, 2009.
Dayton	Approved December 11, 2007.
Maple Grove	Approved January 7. 2009.
Medina	Approved August 12, 2009.
Plymouth	Approved December 1, 2008.
Rogers	Approved May 13, 2009.

Status of 2012 Objectives. Following is a summary of the work undertaken by the Commission in 2012 to meet the goals, objectives, and projected work plan outlined in its *2011 Annual Activity Report.*

√ Continued to review local development/redevelopment plans for conformance with the standards outlined in the Commission's second generation Watershed Management Plan. *The Commission's technical staff performed 38 project reviews in 2012.* (*Appendix 2)*

√ Served as the local government unit (LGU) for administering the Wetland Conservation Act (WCA) for the cities of Champlin and Corcoran. *In 2012 the Commission reviewed 35 plans involving wetlands, participated in five Technical Evaluation Panels (TEPs), and received no wetland banking applications. Three new potential WCA violations were also investigated.*

√ Conducted lake and stream monitoring programs to track water quality and quantity conditions. *The Commission monitored Diamond, Fish, French and Weaver Lakes and the Champlin Mill Pond in cooperation with Three Rivers Park District and funded the monitoring of Dubay, Medina and Sylvan Lakes through Metropolitan Council's Citizen Assisted Monitoring Program (CAMP).* (*Appendix 3)* The 2012 CAMP report will be available in summer 2013 at http://www.metrocouncil.org/environment/Rivers/Lakes/ index.htm. The Commission's lake monitoring history is also included in *Appendix 3.*

√ In cooperation with the United States Geological Survey (USGS), *continued to operate the monitoring station in Champlin. (Appendix 4)*

√ Promoted river stewardship through the River Watch program. *Students from Wayzata High School, Kaleidoscope Charter School and Spectrum High School monitored three sites on Elm and Rush Creeks. (Appendix 5)* The complete River Watch report is available by contacting mary.karius@co.hennepin.mn.us.

√ Participated in the Minnesota Wetland Health Evaluation Program (WHEP)**.** Four *wetlands in the Elm Creek watershed were monitored in 2012. (Appendix 6)* The *2012 Hennepin Field Season Summary of the Minnesota Wetland Health Evaluation Program* will be available in summer 2013 from mary.karius@co.hennepin.mn.us.

√ Partnered with the Hennepin County Department of Environmental Services (HCDES) in the Stream Health Evaluation Program (SHEP) *to monitor nine sites in the Elm Creek watershed. (Appendix 7)* To view the latest available annual monitoring reports go to www.hennepin.us, keyword SHEP.

√ Completed the draft of an amendment incorporating revisions to the Commission's second generation Watershed Management Plan, completed the required agency review and public hearing process, and adopted the amendment. *The Plan Amendment was approved by the Board of Water and Soil Resources on October 24, 2012, and adopted by the Commission on November 14, 2012. It can be viewed on the Commission's website, www.elmcreekwatershed.org.*

√ Continued development of a watershed-wide TMDL and Implementation Plan. *The monitoring phase of the watershed-wide TMDL effort has been concluded and the technical consultants for the Commission are approximately 30% completed with the technical analysis and modeling. A number of meetings were held with the Technical Advisory Committee and various stakeholder groups to discuss modeling progress and key findings, provide updates, and receive feedback on various issues. The scope of the project was expanded through a contract amendment approved in 2012 to include nine additional biotic impairments as well as expand the civic engagement component of the project. Results from all modeling and assessment work will ultimately be summarized into a multi-stressor, watershed-wide TMDL and Implementation Plan (Phase V) due to be completed in late 2014. (Appendix 8)*

√ Continued as a member of the West Metro Water Alliance (WMWA), supporting programs and projects as identified. *Began development of an Educator Program and created* Water Links*, a monthly on-line resource for member commissions, cities and citizens.*

√ Participated as an exhibitor at Plymouth's Yard and Garden Expo *on April 13-14, 2012. An estimated 900 people attended the expo. (Appendix 9)*

√ Continued as a member of Blue Thumb and WaterShed Partners.

√ *C*o-sponsored a series of Metro Blooms Rain Garden Workshops *for residents in Champlin and Plymouth* in conjunction with its Education and Public Outreach Program. *(Appendix 9)*

√ Began the third generation Watershed Management Plan development process. *Drafted an RFP to solicit responses for consultants interested in writing the third generation Plan.*

√ Adopted a 2013 operating budget. *The approved budget resulted in total operating expenses of $272,590 and total operating revenue of $254,150. The capital budget includes projects totaling $346,563. Member assessments total $197,000. (Appendix 11)*

√ Continued to populate and maintain the Commission's website www.elmcreekwatershed.org to provide news to residents of the watershed.

√ Published an annual activities report summarizing the Commission's yearly activities and financial reporting. *The* 2011 Annual Report *was accepted at the Commission's April 11, 2012 meeting.*

Interest Proposals. The required biennial solicitation for interest proposals for administrative, legal, technical and wetland consulting services was published in the January 3, 2011 edition of the *State Register.* At their February 9, 2011 meeting the Commission approved for 2011-2012 the consultants listed in *Appendix 1.* This process will be repeated in January 2013.

Financial Reporting. *Appendix 10* includes the Commission's approved budget for 2012. 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 2012 cost allocations to the members are also found in *Appendix 10.*

Of the $388,358 budget approved by the Elm Creek Watershed Management Commission for 2012, revenue of $52,500 was projected as proceeds from application fees, $5,500 from partnership revenue, $70,000 from grant revenue, and $300 from interest income, resulting in assessments to members totaling $193,000. $67,058 was projected as coming from reserves. Operating expenses total $248,358; watershed-wide TMDL-related expenses total $95,000, third Generation Management Plan expenses total $20,000 and $25,000 is projected for capital improvement studies and projects.

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 2012 Audit Report prepared by Johnson & Company, Ltd., Certified Public Accountants, is found in *Appendix 10.* Amounts paid by the Commission per the 2012 Audit are as follows:

General engineering	$ 81,304
General administration	100,725
Education	25,762
Programs	23,911
Projects	62,527
Total	$294,229

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.

Wetland Banking. The Elm Creek Commission does not have a wetland banking program.

2013 Work Plan. The Commission has identified the following activities in 2013.

√ Continue to review local development/redevelopment plans for conformance with the standards outlined in the Commission's second generation Watershed Management Plan.

√ Serve as the local government unit (LGU) for administering the Wetland Conservation Act (WCA) for the cities of Champlin and Corcoran.

√ Conduct lake and stream monitoring programs to track water quality and quantity conditions. Continue to operate the monitoring station in Champlin in cooperation with the United States Geological Survey (USGS). *The Commission will monitor Diamond, Fish, French, Rice, and Weaver lakes and the Champlin Mill Pond, and conduct grab sampling at the discharge point of Elm Creek in cooperation with*

Three Rivers Park District. The Commission will also fund the monitoring of Dubay, Laura and Sylvan lakes through Metropolitan Council's Citizen Assisted Monitoring Program (CAMP).

√ Promote river stewardship through the River Watch program. *Five sites will be monitored in 2013.*

√ Participate in the Minnesota Wetland Health Evaluation Program (WHEP)**.** *Five wetlands in the Elm Creek watershed will be monitored in 2013.*

√ Partner with the Hennepin County Department of Environmental Services (HCDES) in the Stream Health Evaluation Program (SHEP) to *monitor six sites in the Elm Creek watershed.*

√ Begin development of the Commission's Third Generation Watershed Management Plan. *It is anticipated the Plan will be completed by October 2014.*

√ Continue development of a watershed-wide TMDL and Implementation Plan. *The focus in 2013 will be on completing technical analyses (including stressor identification for all biotic impairments), modeling, preparation of loading capacities as well as draft and final allocations, and report writing so that the TMDL report can be submitted for public and agency review in early 2014. As part of an expanded civic engagement effort, a Knowledge, Attitudes, and Practices (KAP) survey will also be completed, focusing on the agricultural areas of the watershed.*

√ 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. *Assist in development of the Green Yard program. Promote the Watershed PREP (Protection, Restoration, Education, and Prevention) program to reach every 4th grade science class in the watershed.*

√ Participate as an exhibitor at Plymouth's Yard and Garden Expo on *April 12-13, 2013.*

√ Continue as a member of Blue Thumb and WaterShed Partners. *Become a partner in the NEMO (Nonpoint Education for Municipal Officials) program.*

√ Co-sponsor Rain Garden Workshop *in Plymouth* in conjunction with the Commission's Education and Public Outreach Program.

√ Solicit interest proposals for administrative, legal, technical and wetland consulting services.

√ Continue to populate and maintain the Commission's website www.elmcreekwatershed.org to provide news to residents of the watershed.

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

Appendices

Elm Creek Watershed Management Commission

2012 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	Position	Name	Address	Telephone/email
Champlin	Secretary	Bill Walraven	216 Lowell Road Champlin, MN 55316	763.421.3206 traderstec@aol.com
	Alternate	Gerry Butcher	11467 Preserve Lane N Champlin, MN 5316	763.557.1451 gerrybutcher671@yahoo.com
Corcoran	Commissioner	Cindy Patnode	22802 County Road 50 Corcoran, MN 55340	763.670.3040 dcpatnode@aol.com
Dayton	Chair	Doug Baines	13000 Overlook Road Dayton, MN 55327	763.323.9506 dougbaines@yahoo.com
	Alternate	Tim McNeil	12260 S Diamond Lake Road Dayton, MN 55327	612.730.9312 tim@timmcneil.com
Maple Grove	Commissioner	Joe Trainor	16075 Territorial Road Maple Grove, MN 55369	763.420.4645 joe.trainor@meritain.com
	Alternate	Tiffany Peterson	2520 W Medicine Lake Drive Plymouth, MN 55441	763.425.7697 tppink@yahoo.com
Medina	Vice Chair	Liz Weir	1262 Hunter Drive Wayzata, MN 55391	763.473.3226 lizvweir@gmail.com
	Alternate	Madeleine Linck	1762 Morgan Road Medina, MN 55356	763.694.7851 madeleine.linck@gmail.com
Plymouth	Treasurer	Fred Moore	1820 Ives Lane Plymouth, MN 55441	612.269.2088 fred@emailmoore.net
	Alternate	Richard Burkhardt	3005 Garland Lane N Plymouth, MN 55447	763.476.0279 richard.burkhardt@comcast.net
Rogers	Commissioner	Kevin Jullie	13315 Oakwood Drive Rogers, MN 55374	763.428.9160 kjullie@srfconsulting.com

2012 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	Kent Torve	Wenck & Associates 90 Mallard Lane Loretto, MN 55357	763.479.4209 ktorve@wenck.com
Dayton	Brad Schleeter	Bonestroo Associates 2335 W 36th St. Paul, MN 55113	651.604.4801 brad.schleeter@bonestroo.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	Craig Jochum	Hakanson Anderson 3601 Thurston Ave Anoka, MN 55303	763.427.5860 CraigJ@hakanson-anderson.com
Plymouth	Kevin Springob	City of Plymouth 3400 Plymouth Boulevard Plymouth, MN 55447	763.509.5527 kspringob@ci.plymouth.mn.us
Rogers	Todd Hubmer	WSB Associates 701 Xenia Avenue S, Suite 300 Minneapolis, MN 55416	763.287.7182 thubmer@wsbeng.com
HCES	Ali Durgunoğlu James Kujawa	417 N Fifth Street Minneapolis, MN 55401	612.596.1171 Ali.Durgunoglu@co.hennepin.mn.us 612.348.7338 James.Kujawa@co.hennepin.mn.us
Three Rivers Park District	Rich Brasch	12615 County Road 9 Plymouth, MN 55441	763.694.2061 rbrasch@threeriversparkdistrict.org

2012 Staff and Consultants

The required biennial solicitation for interest proposals for administrative, legal, technical and wetland consulting services was published in the January 3, 2011 edition of the *State Register.* At their February 9, 2011 meeting the Commission voted to retain the following consultants for 2011-2012. The Commission has no employees.

	Name	Address	Telephone/email
Technical Services	Ali Durgunoğlu	Hennepin County Env Servs 417 N Fifth St	612.596.1171 ali.durgunoglu@co.hennepin.mn.us
	James Kujawa	Minneapolis, MN 55401	612.348.7338 james.kujawa@co.hennepin.mn.us
	Jeff Weiss	Barr Engineering 4700 West 77th Street Minneapolis, MN 55435	952.832.2706 jweiss@barr.com
Legal Services	Joel Jamnik	Campbell Knutson PA 1380 Corporate Center Curve Eagan, MN 55121	651.645.5000 jjamnik@ck-law.com
Administrative Services	Judie Anderson Amy LeMieux	JASS 3235 Fernbrook Lane Plymouth, MN 55447	763.553.1144 judie@jass.biz amy@jass.biz
Wetland Consultant	Jeff Weiss	Barr Engineering 4700 West 77th Street Minneapolis, MN 55435	952.832.2706 jweiss@barr.com
Wetland Consultant	Deric Deuschle	SEH, Inc 3535 Vadnais Center Drive St. Paul, MN 55110	651.490.2114 ddeuschle@sehinc.com
Wetland Consultant	Maggie Voth	URS 700 Third Street S. Suite 600 Minneapolis, MN 55415	612.373.6872 maggie.voth@urs.com

2012 Project Reviews

			Reviewed for			
Project No.	Project Name	City	Erosion Control	Stormwater	Floodplain	Wetlands
2012-001	Brockton Lane Properties - PUD	Medina		x		
2012-002	Cedarcrest	Maple Grove	x	x	x	
2012-003	Terra Vista	Plymouth	x	x		
2012-004	Elm Creek Drive Culvert	Medina	x		x	
2012-005	Gene Kissner	Corcoran				x
2012-006	Hope Community Church - cemetery	Corcoran	x			x
2012-007	The Enclave Phase 2	Plymouth	x	x	x	x
2012-008	Spire Credit Union	Maple Grove	x	x		
2012-009	Bather property/Maple Brook	Maple Grove	x	x		x
2012-010	Enclave at Brockton	Medina	x	x	x	x
2012-011	Liberty Industrial Park - Phase II	Rogers	x	x		
2012-012	Zachary Lane North (CR202)	Maple Grove		x		
2012-013	Meander Road culvert Replacement	Medina	x		x	
2012-014	Maple Grove Bridge Replacements	Maple Grove	x		x	x
2012-015	Xcel Energy - EC Substation Expansion	Maple Grove				x
2012-016	Peony Lane/Lawndale Lane Extension EAW	Plymouth	x	x	x	x
2012-017	Decimet Expansion	Rogers	x	x		
2012-018	Goodwill	Maple Grove	x	x		
2012-019	Kirkwood	Plymouth	x	x		x
2012-020	Hoppe Wetland Violation	Corcoran				x
2012-021	Kreps Wetland Violation	Corcoran	x		x	x
2012-022	South Diamond Lake Road	Dayton	x		x	x
2012-023	Dayton PW Cold Storage	Dayton	x		x	
2012-024	Roehl Addition/Corcoran Public Works	Corcoran	x	x	x	x
2012-025	Superamerica	Plymouth	x			
2012-026	I-94-Brockton Lane Interchange EAW	Dayton	x	x	x	x
2012-027	Rush Creek stabilization in EC Park Reserve	Dayton	x		x	
2012-028	The Woods of Medina (Gorman Farms)	Medina	x	x	x	
2012-029	Kirkwood II	Plymouth	x	x		x
2012-030	Medicine Lake Regional Trail Rehabilitation	Maple Grove	x		x	x
2012-031	Fields of Medina West	Medina	x	x	x	x
2012-032	Culvert Replacement CD16	Maple Grove	x	x	x	x
2012-033	Elm Creek Golf Course	Plymouth				x
2012-034	Finazzo Site	Plymouth				x
2012-035	Schmid Parcels	Corcoran			x	x
2012-036	Tom Schutte ditch cleaning	Corcoran				x
2012-037	Poppler wetland viola	Corcoran				x
2012-038	Clam Industries	Rogers	x	x		x


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Appendix 2

Elm Creek Watershed Management Commission
Lake Water Quality Summaries
2012

Introduction

Elm Creek Watershed Management Commission contracted with Three Rivers Park District to monitor several lakes in 2012. Three Rivers Park District monitored the water quality in Fish Lake, Weaver Lake, Diamond Lake, French Lake, and Mill Pond. These lakes were sampled biweekly from late April through late October, with the exception of Diamond Lake and French Lake, which were sampled monthly. The seasonal and annual changes in water quality parameters were monitored for total phosphorus, soluble reactive phosphorus, total nitrogen, chlorophyll-a, and Secchi depth transparency. To assess changes in water quality trophic conditions, annual growing season averages were calculated for total phosphorus, chlorophyll-a, and Secchi depth transparency using data collected from May through September. The annual average for each trophic assessment parameter was compared to the MPCA state nutrient standards used for determination of recreational use impairment (Table 1). The MPCA's assessment for water body impairments are based on a conservative average that is estimated from data collected from June through September. This report is an assessment of overall trophic condition during the time period of primary recreational use (growing season from May through September) and is compared to MPCA state standards as a reference point.

Table 1: Minnesota Pollution Control Agency lake eutrophication standards for aquatic recreational use assessments.

North Central Hardwood Forest Ecoregion			
Classification	TP µg/L	Chl-a µg/L	Secchi m
Aquatic Recreation Use (Class 2b) Deep Lakes	< 40	< 14	> 1.4
Aquatic Recreation Use (Class 2b) Shallow Lakes	< 60	< 20	> 1.0

Note: ***Deep Lakes*** *are enclosed basins filled or partially filled with fresh water that have a maximum depth > 15 feet.* ***Shallow Lakes*** *are enclosed basins filled or partially filled with fresh water that have a maximum depth < 15 feet or a littoral zone (area shallow enough to support emergent and submerged vegetation) that is ≥ 80% of the lake surface area.*

Fish Lake

The phosphorus concentration in Fish Lake has steadily decreased in the past five years; however, Fish Lake has consistently had an average phosphorus concentration above the MPCA "deep lake" impaired water eutrophication standard of 40 µg/L. The average phosphorus concentration for Fish Lake in 2012 was 41.87 µg/L (Figure 1). The highest in-lake phosphorus concentrations coincided with the senescence of curly-leaf pondweed and the fall and spring turnover cycles. During the senescence of curly-leaf pondweed the phosphorus concentration was 57.8 µg/L. The process of lake turnover re-suspended nutrients in the water column and contributed to high concentrations in October (62.8 µg/L). There was also a spike in phosphorus concentration that occurred late in June that coincided with a 1.5 inch rain event.This spike may be due to high inputs of external loading from the watershed.The total phosphorus concentrations have fluctuated between 30.9 and 58.7 µg/L throughout the growing season (May-September) (Figure 2).

The excessive amount of phosphorus has been conducive for the development of severe algal blooms during the summer.The severity of these algal blooms has often been in response to the changes in phosphorus concentration. Although phosphorus concentrations may influence algal biomass, the impact phosphorus had on the severity of the algal blooms after 2007 does not appear to be as significant. In 2012, the average chlorophyll-a concentration was 25.5 µg/L with values ranging from 6.9 to 62.2 µg/L (Figure 3). Although the chlorophyll-a concentration increased in 2012, the Secchi depth still met MPCA standards. The average Secchi depth transparency in 2012was 1.68 m (Figure 4) with values ranging from 0.5 m to 3.88 m (Figure 5).

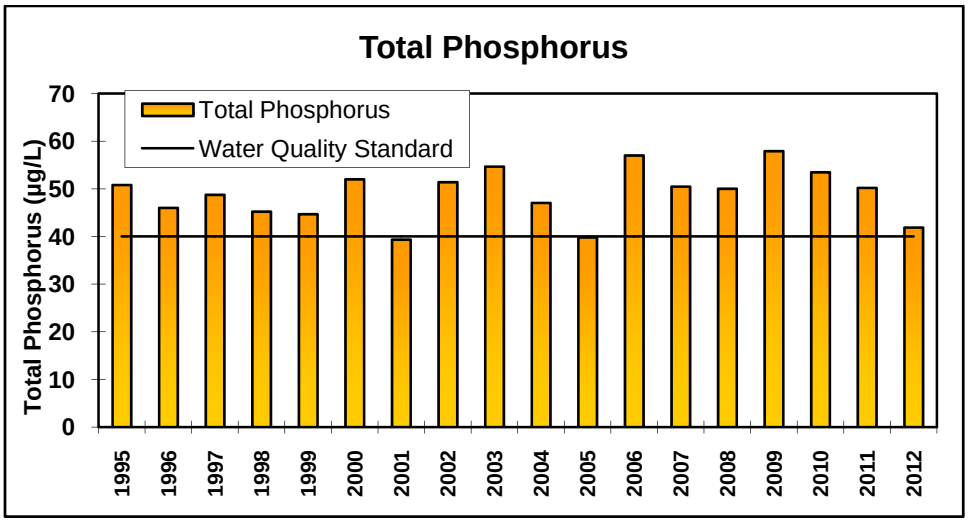


Figure 1. Fish Lake average annual total phosphorus concentrations.

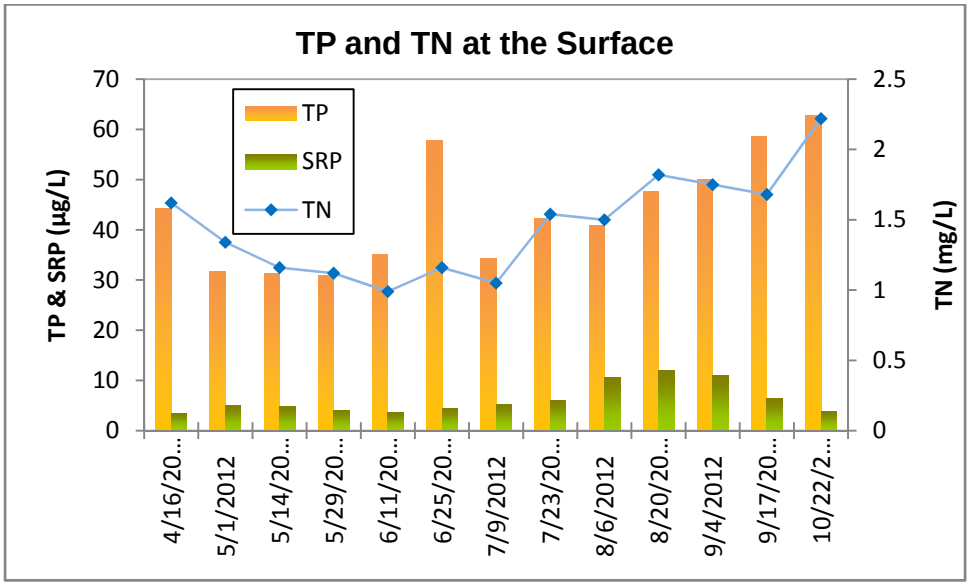


Figure 2. Fish Lake seasonal changes in total phosphorus, soluble reactive phosphorus, and total nitrogen in 2012.

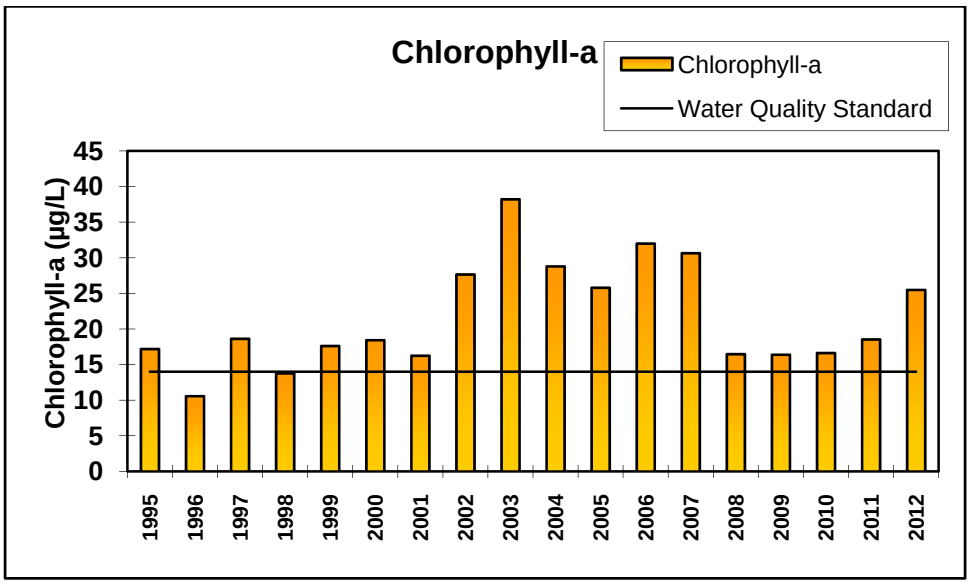


Figure 3. FishLake average annual chlorophyll-a concentrations.

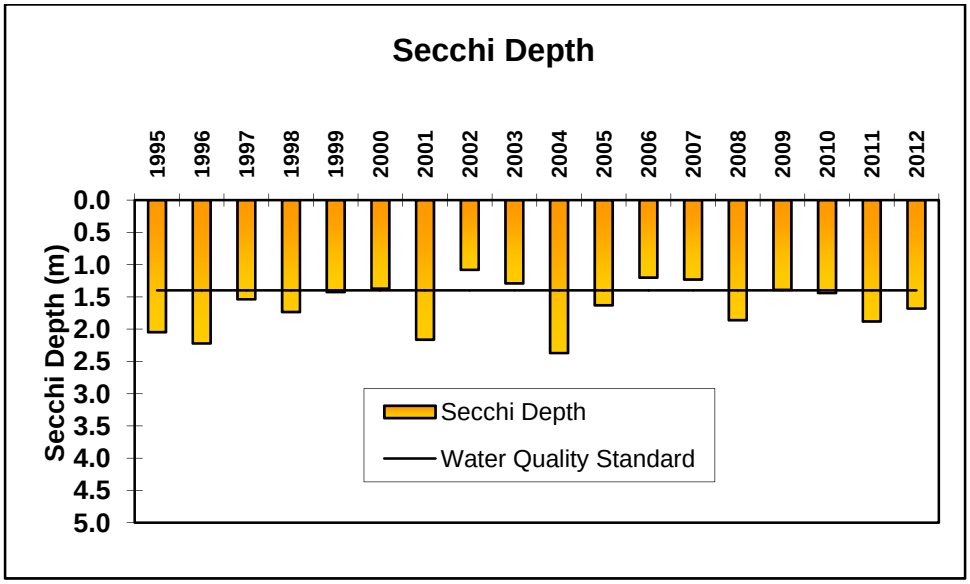


Figure 4. Fish Lake average annual Secchi depth concentrations.

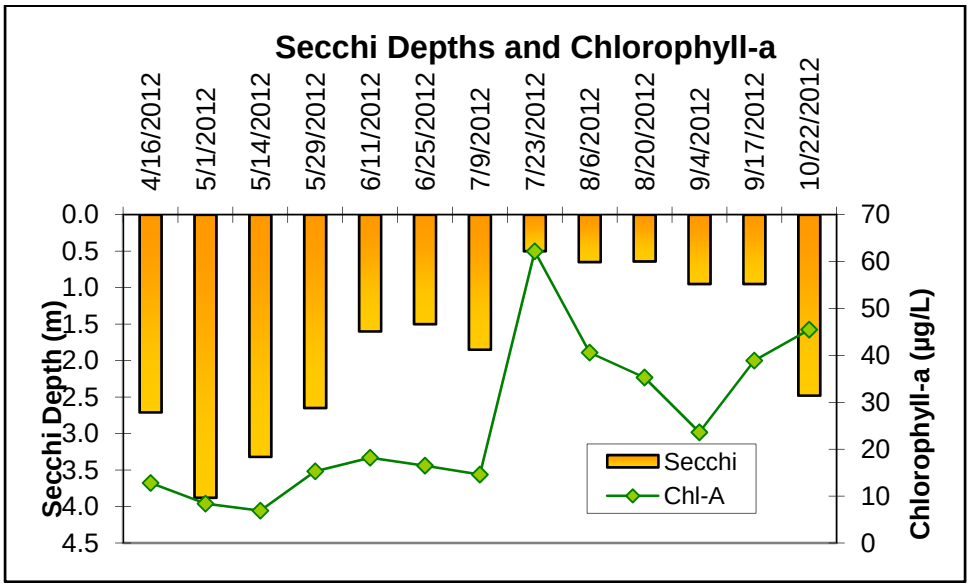


Figure 5. Fish Lake seasonal changes in Secchi depth and chlorophyll-a concentrations in 2012.

Weaver Lake

The Weaver Lake water quality conditions have continued to meet MPCA standards for phosphorus, chlorophyll-a, and secchi depth transparency. Prior to 2005, the lake frequently had phosphorus concentrations that were above the MPCA "deep lake" impaired water criteria of 40 µg/L. Since 2005, Weaver Lake has achieved the MPCA "deep lake" standards for total phosphorus. The average phosphorus concentrations from 2005 through 2012 have consistently averaged between 20 to 35 µg/L (Figure 6). The average annual phosphorus concentration in 2012 was 31.4 µg/L (Figure 6) with values ranging from 25.4 to 69.7 µg/L in 2012 (Figure 7). The upper range of the phosphorusdid not occur during the growing season and corresponds with the fall turnover. These concentrations are considerably lower in comparison to other lakes within the ecoregion.

The low phosphorus concentrations have significantly improved water clarity conditions by reducing the frequency of algal blooms. In 2012, the low chlorophyll-a concentrations have corresponded with improvements in water clarity (Secchi depths) (Figures 8&9). The average chlorophyll-a concentration was 10.58µg/L in 2012(Figure 8). Weaver Lakehad an average Secchi depth transparency of 2.52 m (Figure 9) with values ranging from 1.35 to 4.35 meters during the growing season (Figure 10). The low chlorophyll-a concentrations and excellent water clarity conditions suggests that Weaver Lake does not appear to have severe algal blooms that inhibit recreational use.

The improvements in water quality conditions for Weaver Lake correspond with a lake-wide effort to control curlyleaf pondweed. Historically, Weaver Lake has had nuisance growth conditions of curlyleaf pondweed that inhibited recreational use and degraded water quality. Weaver Lake typically developed algal blooms after the senescence of curlyleaf pondweed. In an attempt to control curly leaf pondweed, herbicide applications occurred throughout the littoral area of the lake with fluridone from 2005 through 2007 and with endothall from 2008 and 2009. The herbicide treatments were successful in controlling curlyleaf pondweed in Weaver Lake. There were also noticeable improvements in water quality that corresponded with the first year of treatment in 2005. Management efforts to control curlyleaf pondweed may have reduced the amount of internal loading associated with senescence.

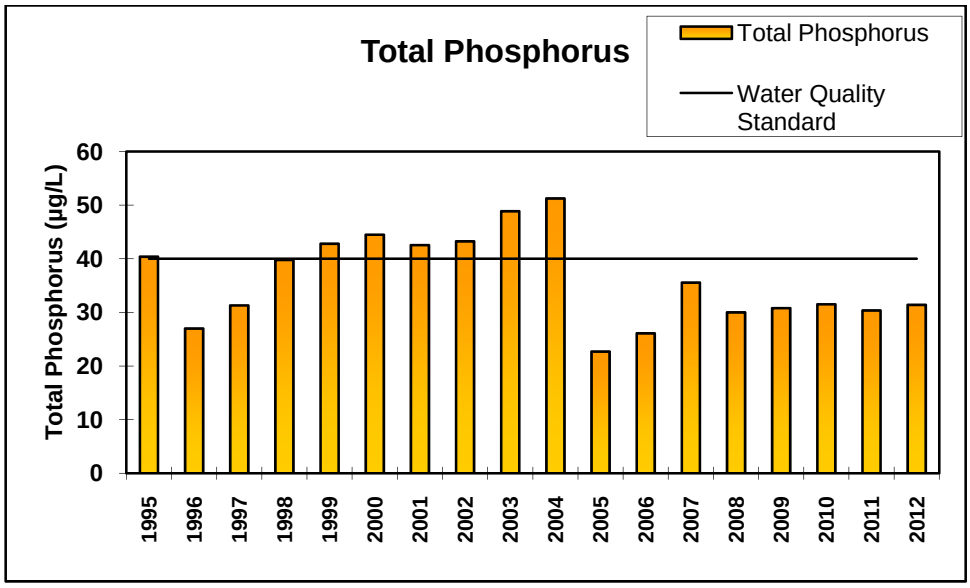


Figure 6.Weaver Lake average annual total phosphorus concentrations.

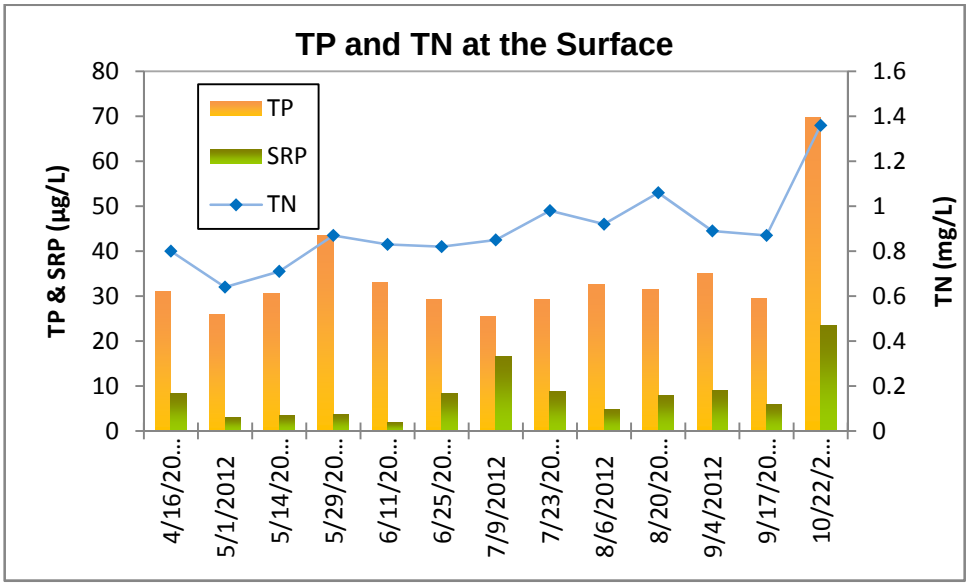


Figure 7. Weaver Lake seasonal changes in total phosphorus, soluble reactive phosphorus, and total nitrogen in 2012.

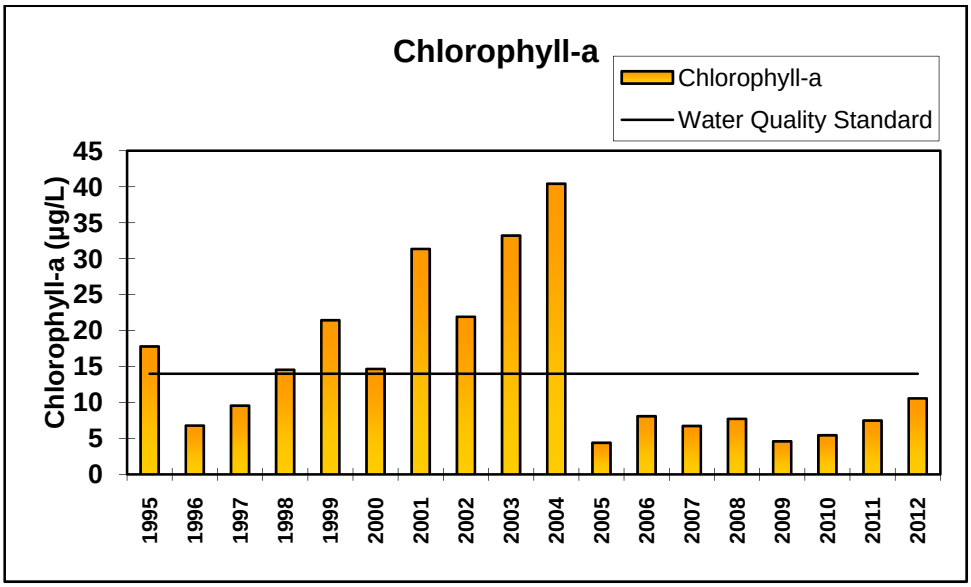


Figure 8. Weaver Lake average annual chlorophyll-a concentrations.

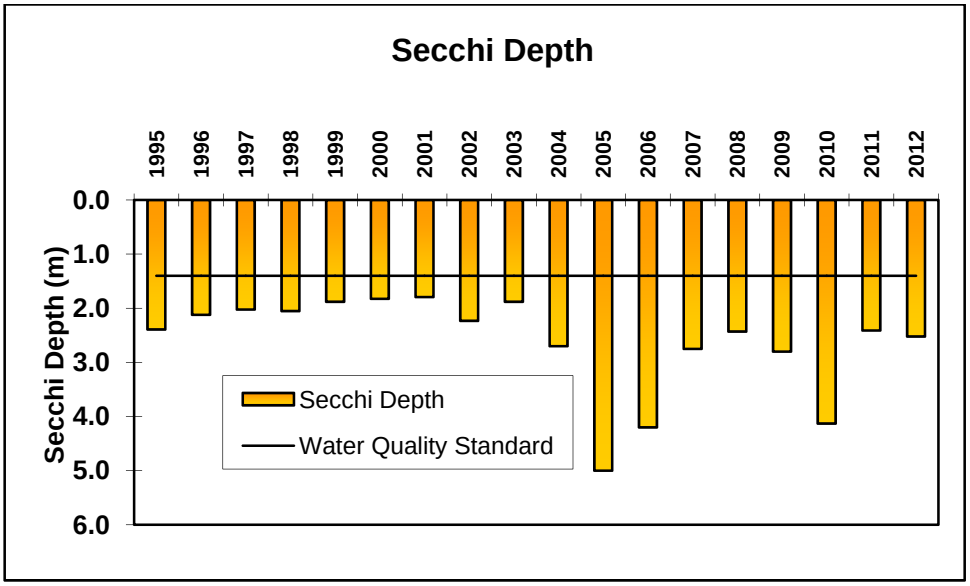


Figure 9. Weaver Lake average annual Secchi depth concentrations.

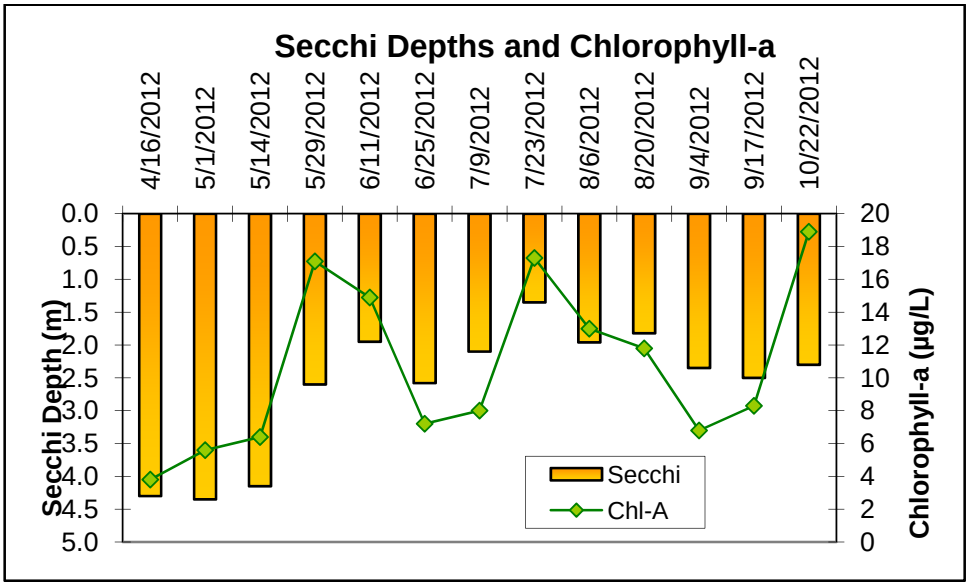


Figure 10. Weaver Lake seasonal changes in Secchi depth and chlorophyll-a concentrations in 2012.

Diamond Lake

Diamond Lake continues to have impaired water quality conditions for excessive nutrients. Diamond Lake is a "shallow lake" that has a total phosphorus standard of 60 µg/L. The lake is considered hyper-eutrophic with phosphorus concentrations ranging from 148.7 µg/L to 255.3 µg/L prior to 2008 (Figure 11). Despite the excessive phosphorus concentrations, the average total phosphorus concentrations significantly decreasedfrom 210 µg/L in 2008 to 96 µg/L in 2011. Unfortunately, the decreasing trend in phosphorus concentration did not continue in 2012.The average phosphorus concentration increased to 119.2 µg/L (Figure 11) with monthly concentrations ranging between 46.6 to 206 µg/L in 2012 (Figure 12).

The excessive phosphorus concentrations have been conducive for the development of severe algal blooms. The severity of algal blooms in Diamond Lake corresponded with the fluctuations in phosphorus concentrations. Diamond Lake typically had extremely poor water clarity prior to 2008 due to severe algal blooms that resulted in annual average chlorophyll-a concentrations ranging from 46.3 to 87.8 µg/L and average secchi depth measurements ranging from 0.24 to 0.55 m (Figures 13 and 14). Water clarity conditions significantly improved from 2008 to 2011; and secchi depth measurements increased from 0.78 m in 2008 to 1.7 m in 2011 (Figure 14).The average chlorophyll-a concentrationin 2011metthe MPCA "shallow lake" standard of 20 µg/L; and secchi depth transparency has met MPCA standards of 1.0 m since 2009 (Figure 14). Despite these improvements in water clarity, the chlorophyll-a concentration and secchi depth transparency slightly degraded in 2012. The average chlorophyll-a concentration increased to 52.9 µg/L, and the secchi depth transparency decreased to 1.13 m (Figures 13 and 14). The increase in phosphorus in 2012 most likely caused severe algae bloomsresulting in areduction in water clarity (Figure 15).

The improvements in water quality in Diamond Lake may have been attributed to a shift from an algal dominated to a plant dominated condition. Typically, Diamond Lake is dominated by curly-leaf pondweed growth in the spring, and shifts to a more algal dominated condition after curly-leaf pondweed senescence occurs at the end of June and beginning of July. The most recent point-intercept aquatic vegetation surveys for Diamond Lake indicated there has been a substantial increase in nuisance growth of native coontail and elodea in the past several years after curly-leaf pondweed senescence.The establishment of a native aquatic plant community can reduce the potential for nutrient re-suspension by stabilizing in-lake sediments and improving water quality conditions. These conditions may have contributed to the improvements in phosphorus concentration and water clarity from 2008 through 2011. Unfortunately, an increase in curly-leaf pondweed growth in shallow lakes has the potential to off-set any water quality improvements. The absence of snow-cover and poor ice conditions in the winter of 2011 and 2012 were conducive for curly-leaf pondweed growth. Consequently, there was a substantial increase in nuisance growth of curly-leaf pondweed in 2012, which most likely contributed to an increase in internal loading through senescence and resulted in poor water quality conditions.

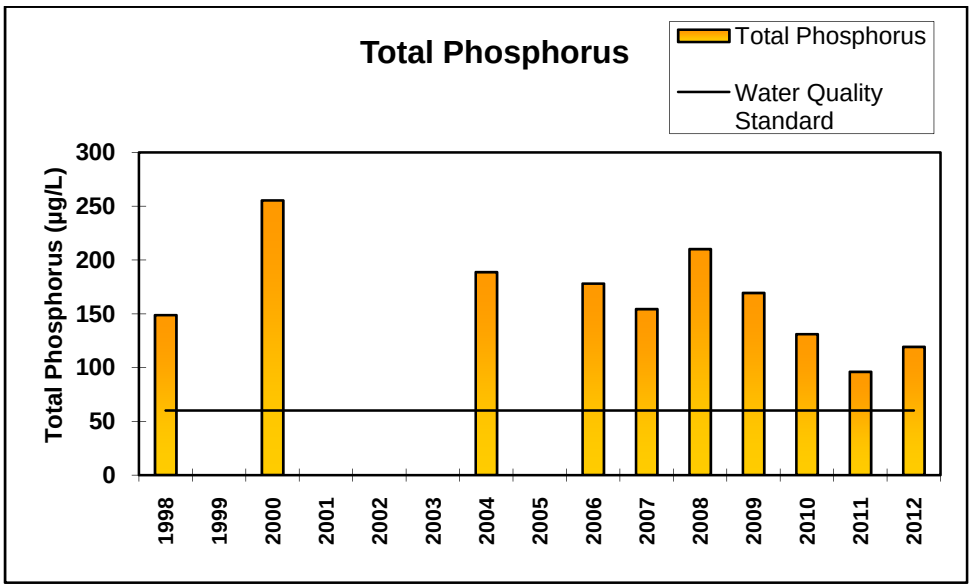


Figure 11.Diamond Lake average annual total phosphorus concentrations.

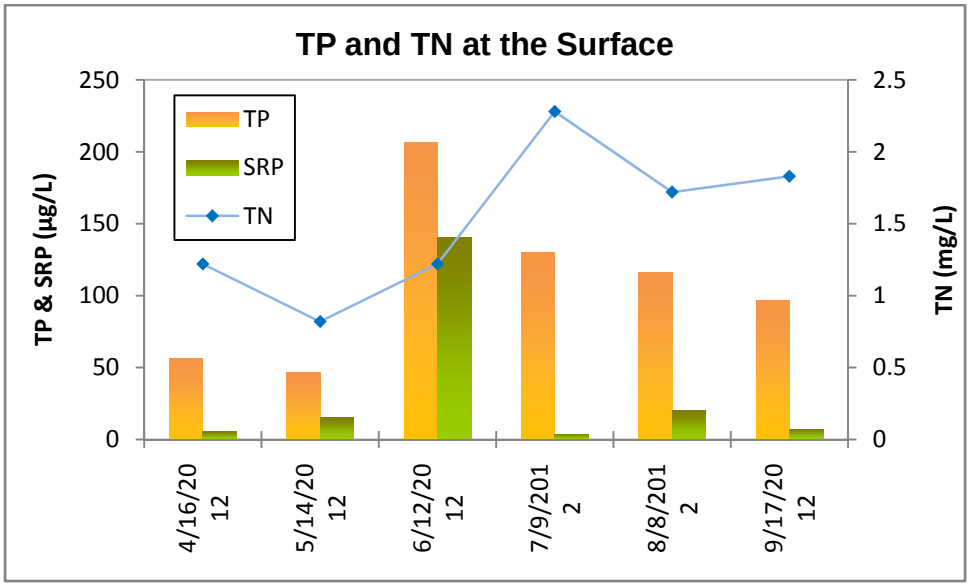


Figure 12. Diamond Lake seasonal changes in total phosphorus, soluble reactive phosphorus, and total nitrogen in 2012.

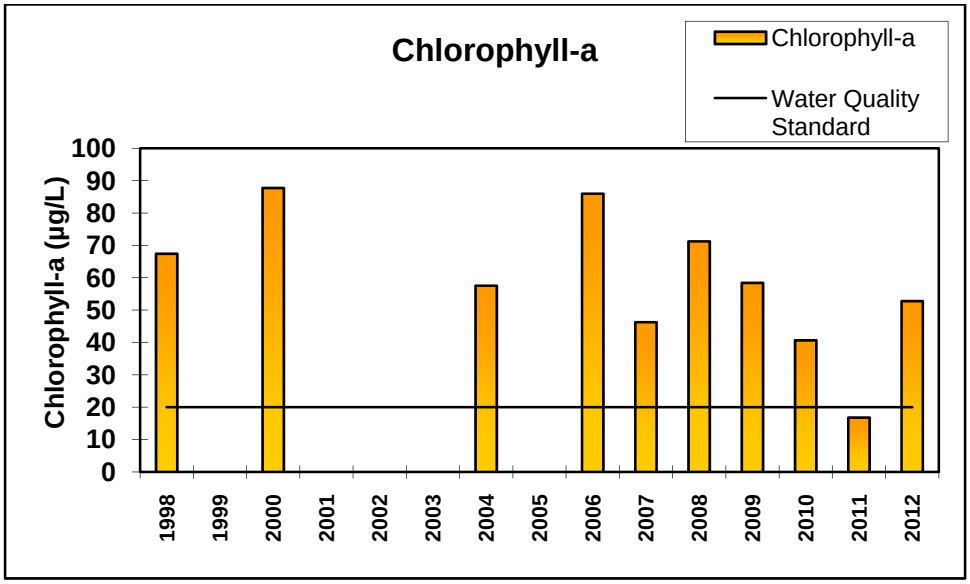


Figure 13. Diamond Lake average annual chlorophyll-a concentrations.

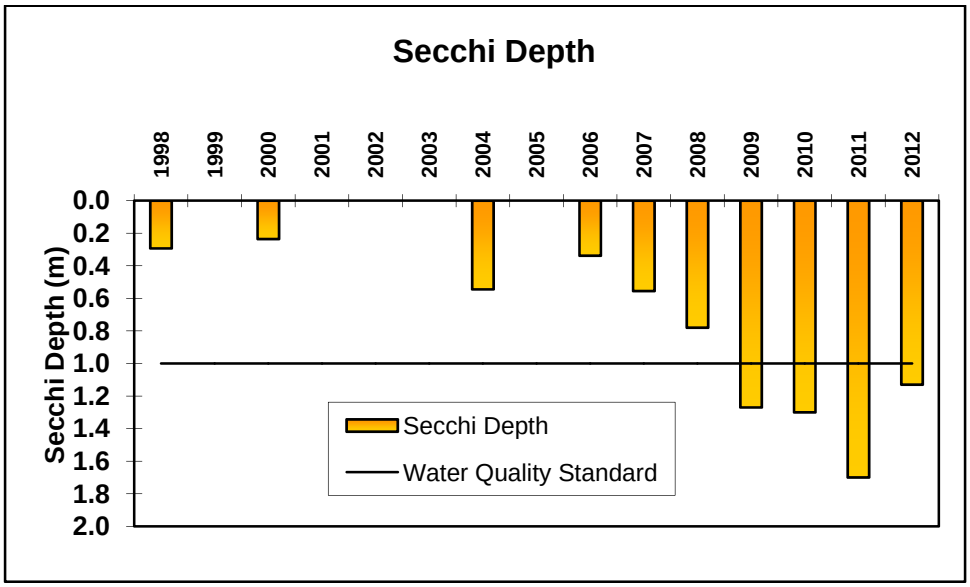


Figure 14. Diamond Lake average annual Secchi depth concentrations.

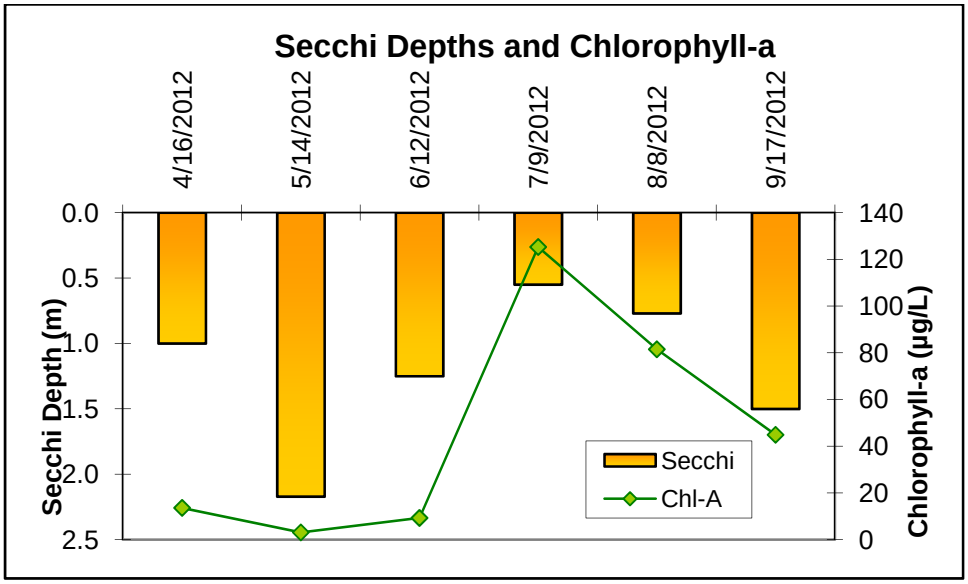


Figure 15. Diamond Lake seasonal changes in Secchi depth and chlorophyll-a concentrations in 2012.

French Lake

French Lake is currently defined as a "shallow lake" that has impaired water quality conditions. However, the lake has morphological characteristics that are similar to a Type 3 and 4 wetland that has a maximum depth of 3.8 feet with a cattail marsh perimeter. Consequently, the lake has poor water quality conditions that are similar to an open wetland with a significant source of internal loading. The classification of the water body is currently being reviewed by the MPCA for potential re-classification as a wetland.

The lake is hypereutrophic with phosphorus concentrations above the MPCA "shallow lake" standard of 60 µg/L (Figure 16). Since 2005, the average phosphorus concentrations have ranged from 154.8 µg/L and 347.2 µg/L. The average phosphorus concentration in 2012 was 179.7 µg/L (Figure 16) with values ranging between 121.6 µg/L and 200.8 µg/L (Figure 17). These phosphorus concentrations are extremely high and are conducive for the development of severe algal blooms.

French Lake has severe algal blooms that reduced water clarity conditions during the summer. Typically, French Lake has chlorophyll-a concentrations ranging from 44.7 µg/L and 260.4 µg/L; and secchi depth measurements ranging from 0.22 m to 0.77 m. In 2012, the average chlorophyll-a concentration was220.7 µg/L with values ranging from 82.4 µg/L to 470.7 µg/L (Figures 18 & 19). The average Secchi depth transparency in 2011 was 0.22 m (Figure 20) with values ranging from 0.17 to 0.3 (Figure 19).The chlorophyll-a concentration and Secchi depth did not meet the MPCA "shallow lake" water quality standards.

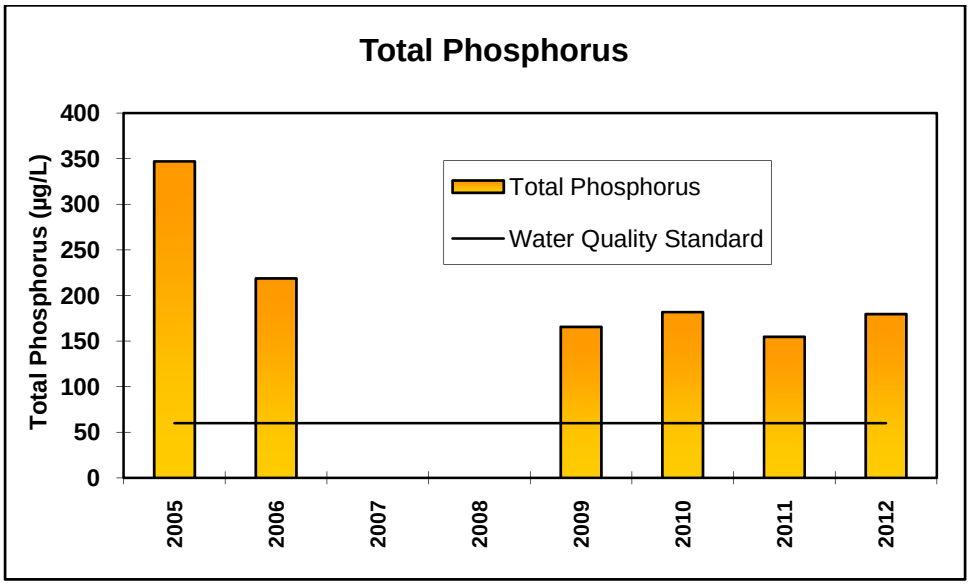


Figure 16.French Lake average annual total phosphorus concentrations.

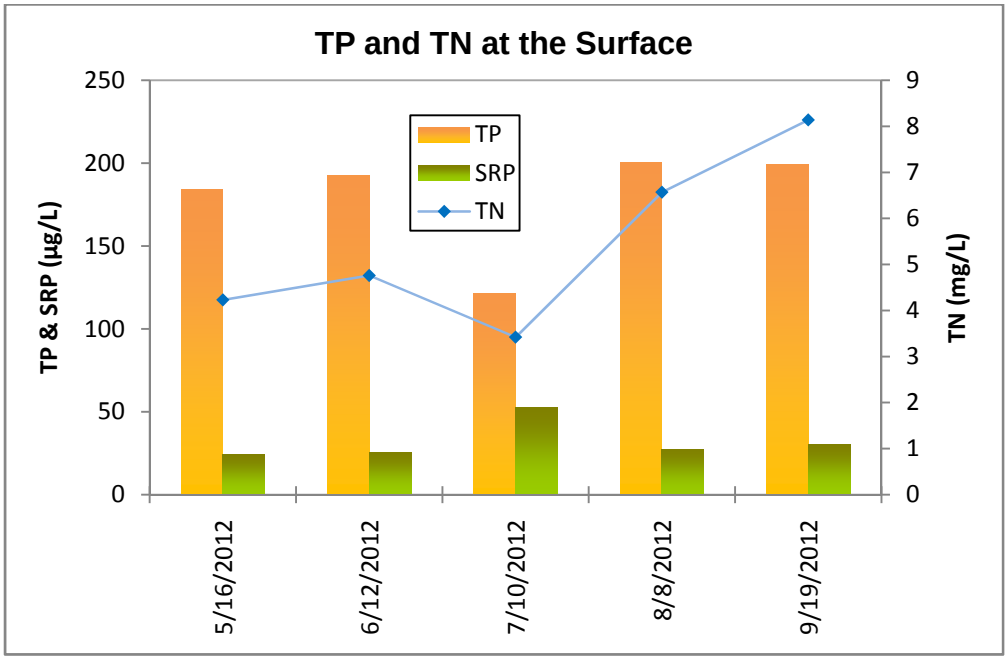


Figure 17. French Lake seasonal changes in total phosphorus, soluble reactive phosphorus, and total nitrogen in 2012.

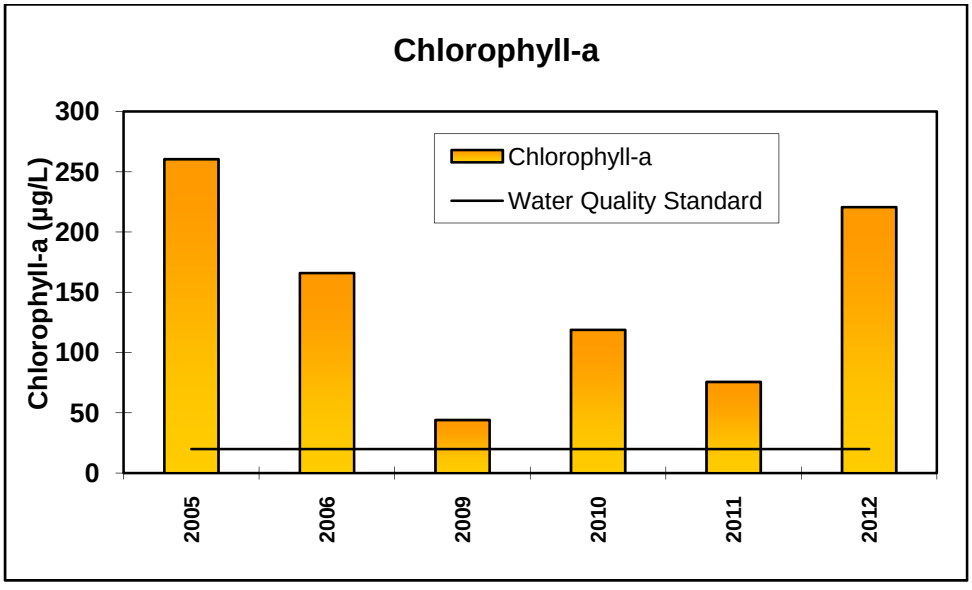


Figure 18. French Lake average annual chlorophyll-a concentrations.

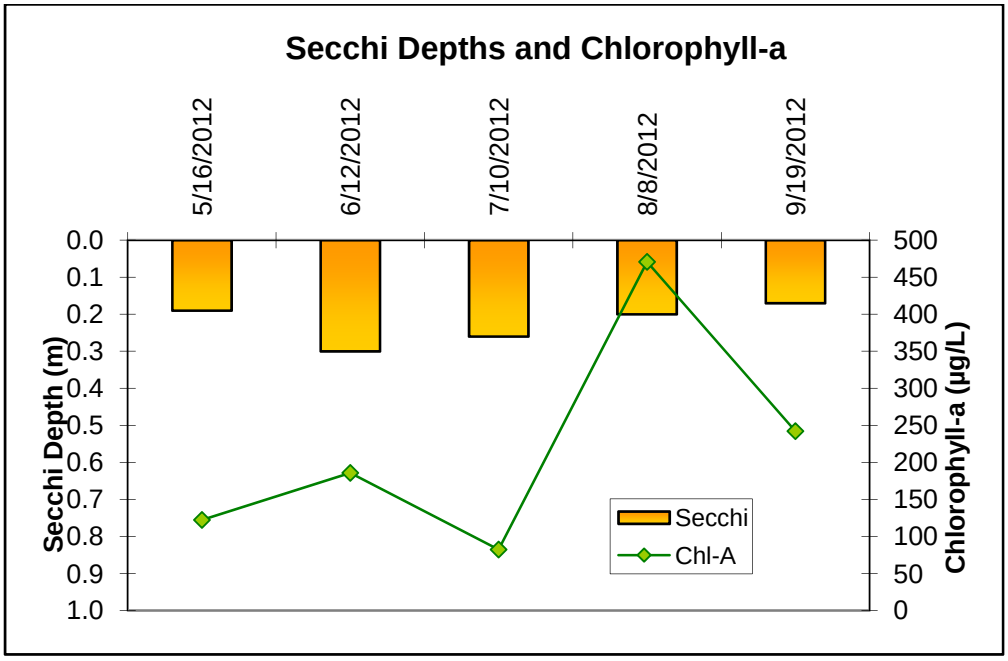


Figure 19. French Lake seasonal changes in Secchi depth and chlorophyll-a concentrations in 2012.

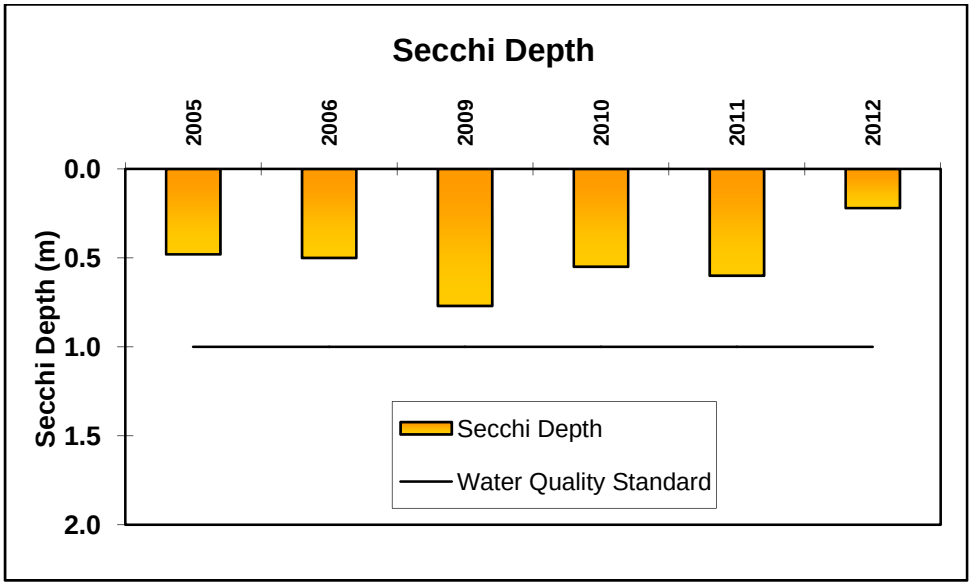


Figure 20. French Lake average annual Secchi depth concentrations.

Mill Pond

Mill Pond is part of the Elm Creek flowage prior to draining to the Mississippi River. It is uncertain as to whether Mill Pond meets the hydraulic residence time (a minimum of 14 days) to be classified as a shallow lake. Currently, the water quality conditions of Mill Pond are similar to that of Elm Creek, and water quality parameters were not compared to the shallow lake standards. The MPCA is currently reviewing the classification of Mill Pond.

The average annual phosphorus concentration for Mill Pond ranged from 184.3 µg/L to 379 µg/L. In 2012, the average annual phosphorus concentration was 213.06 µg/L with values ranging from 118 µg/L to 324.4 µg/L (Figures21 &22). The soluble reactive phosphorus portion represents approximately 70% of the total phosphorus concentration. These concentrations in Mill Pond are highly indicative of the phosphorus loading exhibited by Elm Creek. Consequently, seasonal changes in phosphorus concentration become dependent upon storm-event run-off volume and loading from Elm Creek.

Despite high phosphorus concentrations, Mill Pond does not appear to have severe algal blooms. The average annual chlorophyll-a concentration ranged from 4.8 µg/L to 10.4 µg/L. In 2012, the average annual chlorophyll-a concentration was the lowest reported(4.8 µg/L) with values ranging from 1.9 µg/L to 21.8 µg/L (Figure 23 &24). Secchi depth transparency was not measured throughout the summer, butwater transparency was frequently on the bottom. The residence time within Mill Pond is relatively short since the impounded area is essentially part of the Elm Creek flowage. Consequently, Mill Pond has chlorophyll-a concentrations that are more indicative of Elm Creek. The reduced residence time is not conducive for the development of algal blooms despite the high phosphorus concentrations.

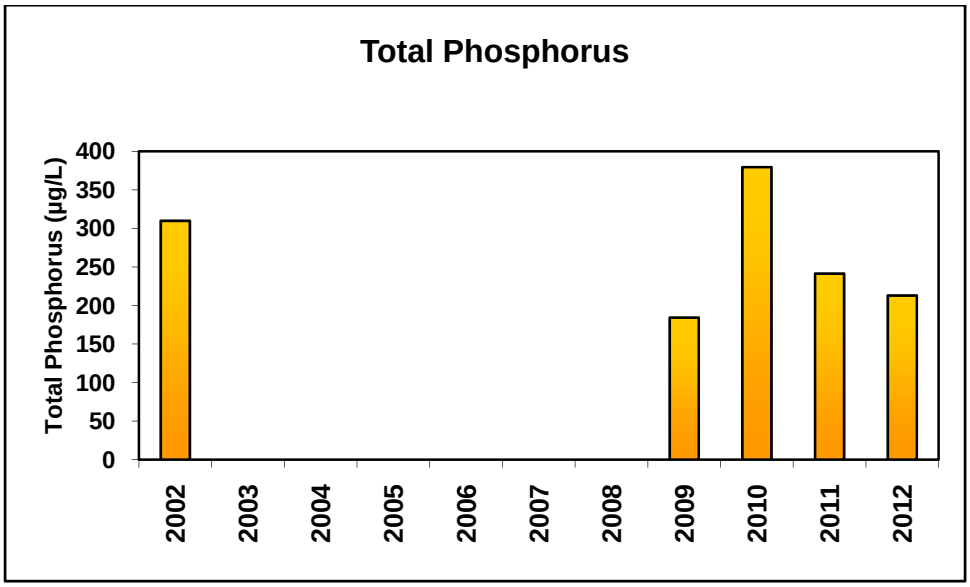


Figure 21.Mill Pond average annual total phosphorus concentrations.

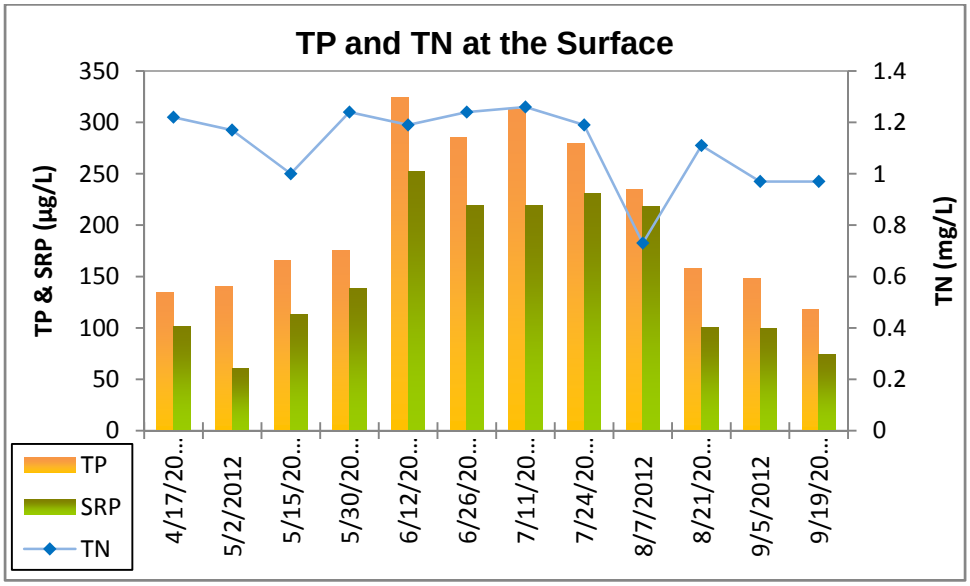


Figure 22. Mill Pond seasonal changes in total phosphorus, soluble reactive phosphorus, and total nitrogen in 2012.

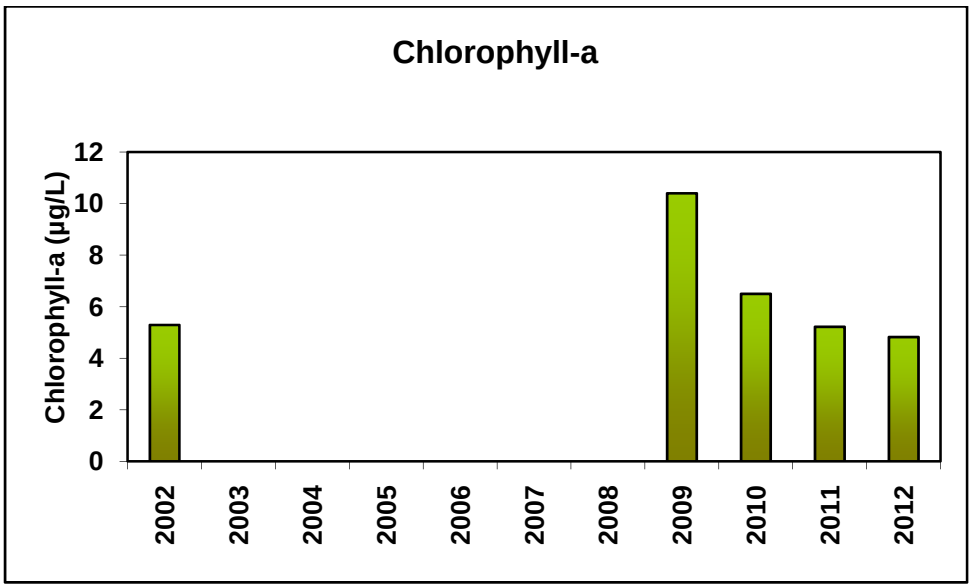


Figure 23. Mill Pond average annual chlorophyll-a concentrations.

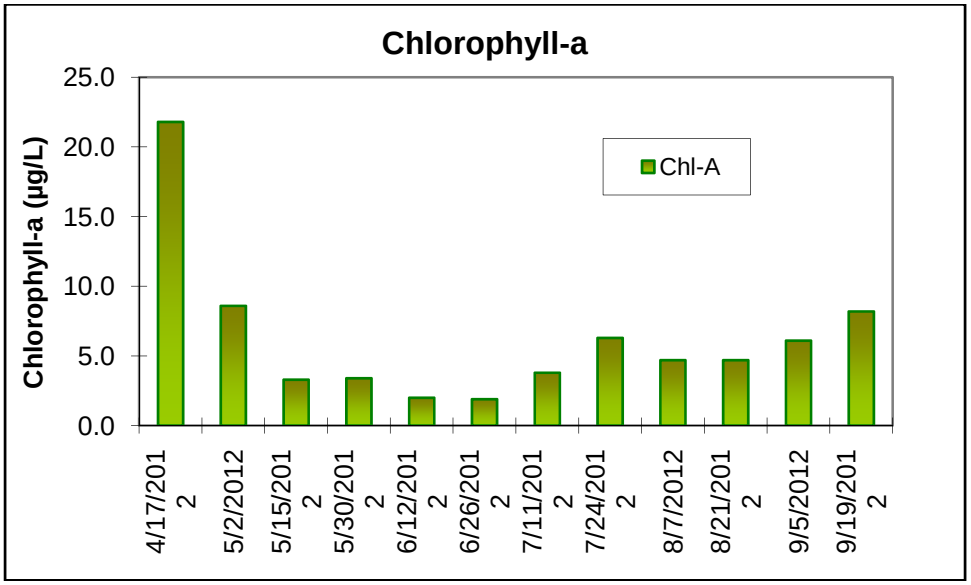


Figure 24. Mill Pondseasonal changes in chlorophyll-a concentrations in 2012.

2012 Lake Monitoring - CAMP

Lakes Dubay, Medina and Sylvan were monitored through the 2012 Citizens Assisted Monitoring Program (CAMP). The 2012 annual CAMP report will be available in summer 2013 at http://www.metrocouncil.org/environment/Rivers/ Lakes/index.htm

CAMP was initiated by the Metropolitan Council to supplement the water quality monitoring performed by Met Council staff and to increase the knowledge of water quality of area lakes. Volunteers monitor the lakes semi-monthly from mid-April to mid-October. They note natural and cultural observations and general perceptions of the lakes' condition and suitability for recreation. They take a water transparency reading using a Secchi disk, measure surface water temperature, and collect surface water samples that are analyzed for total phosphorous, total Kjeldahl nitrogen, and chlorophyll-a.

Data from each lake's sampling forms and lab analyses are entered into a data management and statistical analysis program called Statistical Analysis System (SAS). Various quality control methods are used throughout the program to ensure that proper sampling and data analysis techniques were used. Suspect data are excluded from the databases or conclusions.

Dubay Lake:

Lake Medina:

Sylvan Lake:

Appendix 3

Lake Monitoring History

	Cook	*Cowley*	*Diamond*	*Dubay*	*Fish*	*French*	*Henry*	*Jubert*	*Medina*	*Mill Pond*	*Mud*	*Rice*	*Sylvan*	*Weaver*
2012			**T**	**C**	**T**	**T**			**C**	**T**			**C**	**T**
2011			**T**	**C**	**T**	**T**	**C**			**T**		**C**		**T**
2010		**C**	**T**		**T**	**T**	**C**			**T**	**T**	**C/T**		**T**
2009		**C**	**T**		**T**	**T**	**C**			**T**		**C**		**T**
2008			**T**		**T**		**C**					**C**	**C**	**T**
2007		**C**	**T**		**T**		**C**					**C**		**T**
2006		**C**			**T**	**T**	**C**							**T**
2005					**T**	**T**	**C**							**T**
2004			**T**		**T**	**T**								**T**
2003														
2002					**T**	**C**				**T**				**T**
2001	**T**				**T**	**C**								**T**
2000					**T**			**C**						**T**
1999					**T**					**T**				**T**
1998			**T**		**T**									**T**
1997					**T**								**T**	**T**
1996					**T**									**T**
1995					**T**		**C**							**T**
1994			**C**		**T**									**T**
1993					**T**									**T**
1992	**T**		**T**		**T**									**T**
1991					**T**			**T**		**T**				**T**
1990	**T**				**T**	**T**								**T**
1989			**T**	**T**	**T**			**T**						**T**
1988	**T**				**T**					**T**				**T**
1987					**T**			**T**						**T**
1986	**T**		**T**	**T**	**T**						**T**			**T**

T = monitored by Three Rivers Park District **C** = monitored through CAMP program

2012 Elm Creek Watershed Stream Monitoring

Stream Monitoring

The Elm Creek watershed contains several large depressions and drainageways. Water is generally directed from the south and west to the northeast via four main drainageways – Rush Creek, North Fork Rush Creek, Diamond Creek, and Elm Creek. These drainageways 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.

The monitoring station in Champlin, located at the Elm Creek Road crossing in the Elm Creek Park Reserve, 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. 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 2012 water year (WY), October 1, 2011 through September 30, 2012, was 37.3 cubic feet per second (cfs) or 5.91 inches. During the same period, the minimum and maximum observed average daily discharge values were 0.80 cfs and 534 cfs, respectively. The long-term average daily discharge at the station is 39.1 cfs or 6.18 inches (years 1979-2012). A spreadsheet of the data received in 2012 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	8/1/87	185	4/1/97	511*	3/17/07	223
3/25/80	199	3/27/88	39	4/5/98	306	5/4/08	205
6/15/81	44	3/31/89	159	5/15/99	538*	3/27/09	119
4/3/82	471*	8/1/90	225	7/13/00	112	3/17/10	369
3/9/83	408	6/1/91	371	4/25/01	875**	3/24/11	803
2/25/84	341	3/8/92	380	5/11/02	554	5/29/12	568
3/18/85	579*	6/22/93	315	6/28/03	695		
3/27/86	812*	4/30/94	669*	6/03/04	350		
8/1/87	185	3/17/95	237	10/30/04	118		
3/27/86	812*	3/19/96	407	10/09/05	295		

*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.

Elm Creek Near Champlin (USGS Station 05287890)

Manual Water Quality Samples for Water Year 2012

(Selected Parameters)

USGS Parameter #		P00010	P00020	P00025	P00061	P00095	P00300	P00301	P00340	P00400
DATE	Sample Start Time	Water Temp. °C	Air Temp. °C	Barom Press mm Hg	Disch Inst cfs	Sp cond mS/cm	DO mg/L	DO % Satur	COD mg/L	pH
13-Oct-11	12:00	12.5		730	1.2	671	4.1	40	30	7.5
14-Nov-11	12:30	5.5	6.7	724	1.9	705	10.3	86	20	7.6
8-Dec-11	14:00	0.4	-5	740	2.5	777	< 10.9	< 78	10	7.7
10-Jan-12	11:30	1.4	0	734	2.1	707	11.8	88	10	7.6
17-Feb-12	9:30	1.7	4	737	1.7	730	10.1	75	< 10	7.6
21-Mar-12	12:00	11.6	15	738	46	511	8.5	80	40	7.3
17-Apr-12	9:30	7.1	10	746	27	622	9	76	40	7.3
17-May-12	10:30	16.9	19.4	738	78	530	6.8	72	30	7.4
11-Jun-12	10:00	21.4		735	107	407	4.9	57	50	7.1
2-Aug-12	10:00	23.5		736	12	484	5.1	63	50	7.4
15-Aug-12	12:00	18.0		734	4.9	560	6.9	75	30	7.3
26-Sep-12	12:00	9.1		744	0.9	703	8.5	75	< 10	7.4
15-Oct-12	13:30	8.0		737	0.48	707	6.4	56	10	7.4
6-Dec-12	13:30							83		

USGS Parameter #		P00530	P00535	P00608	P00613	P00625	P00631	P00665	P00666	P00940
DATE	Sample Start Time	TSS mg/L	Volatile Residue mg/L	Ammonia mg/L	Nitrite mg/L	Total Nitrogen mg/L	Dissolved NO2+NO3 mg/L	Total P mg/L	Dissolved P mg/L	Dissolved Chloride mg/L
13-Oct-11	12:00	21	< 10	0.033	0.004	0.83	0.030	0.24	0.13	24.8
14-Nov-11	12:30	< 15	< 10	0.014	0.003	0.47	< 0.040	0.08	0.03	23.3
8-Dec-11	14:00	< 15	< 10	0.110	0.005	0.49	0.196	0.06	< 0.02	36.1
10-Jan-12	11:30	< 15	< 10	0.157	0.005	0.52	0.197	0.07	0.02	30.1
17-Feb-12	9:30	< 15	< 10	0.089	0.003	0.38	0.110	0.04	0.03	24.8
21-Mar-12	12:00	22	11	0.339	0.036	1.70	0.341	0.18	0.10	63.0
17-Apr-12	9:30	< 15	< 10	0.053	0.006	1.10	0.137	0.12	0.07	90.9
17-May-12	10:30	< 15	< 10	0.041	0.002	1.20	0.062	0.19	0.14	59.0
11-Jun-12	10:00	34	18	0.146	0.012	1.60	0.079	0.45	0.27	32.0
2-Aug-12	10:00	< 15	< 10	0.116	0.028	1.50	0.171	0.37	0.26	42.4
15-Aug-12	12:00	< 15	< 10	0.098	0.037	0.91	0.246	0.20	0.12	33.9
26-Sep-12	12:00	< 15	< 10	0.016	0.002	0.26	0.052	0.07	0.05	12.6
15-Oct-12	13:30	< 15	< 10	< 0.010	< 0.001	0.22	< 0.040	0.10	0.09	13.2
6-Dec-12	13:30			0.096	0.006	0.35	0.053	0.07	0.02	

Data are provisional and are subject to change

E = Estimated

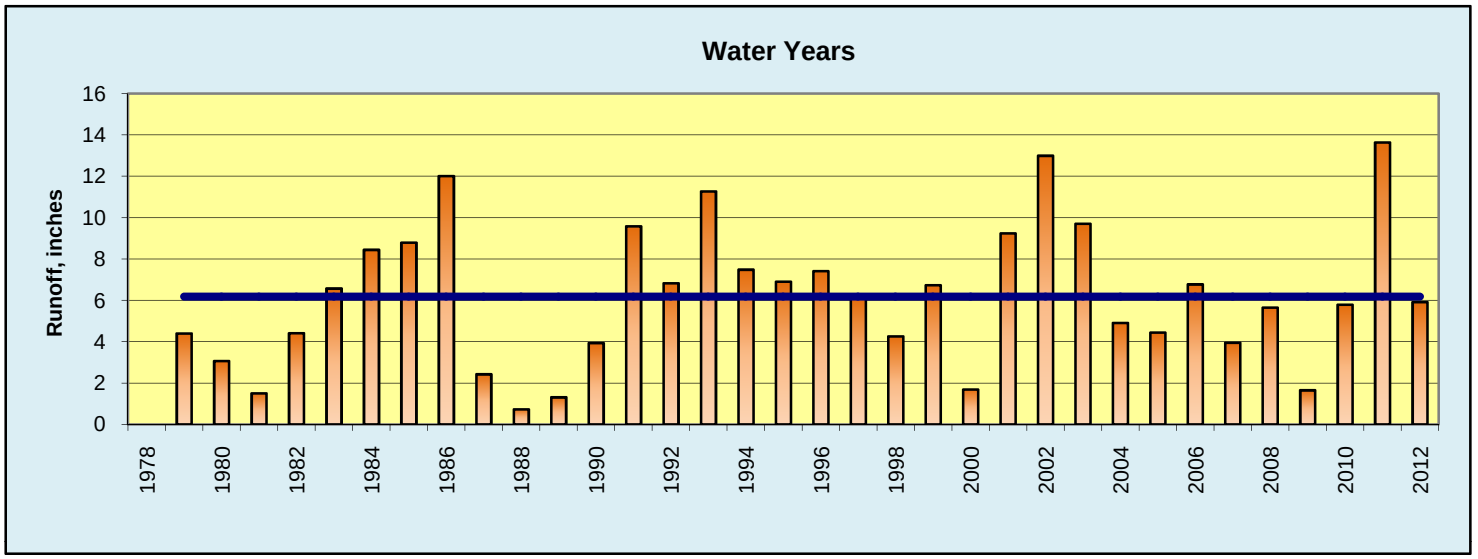
Automatic Event Samples for Water Year 2012

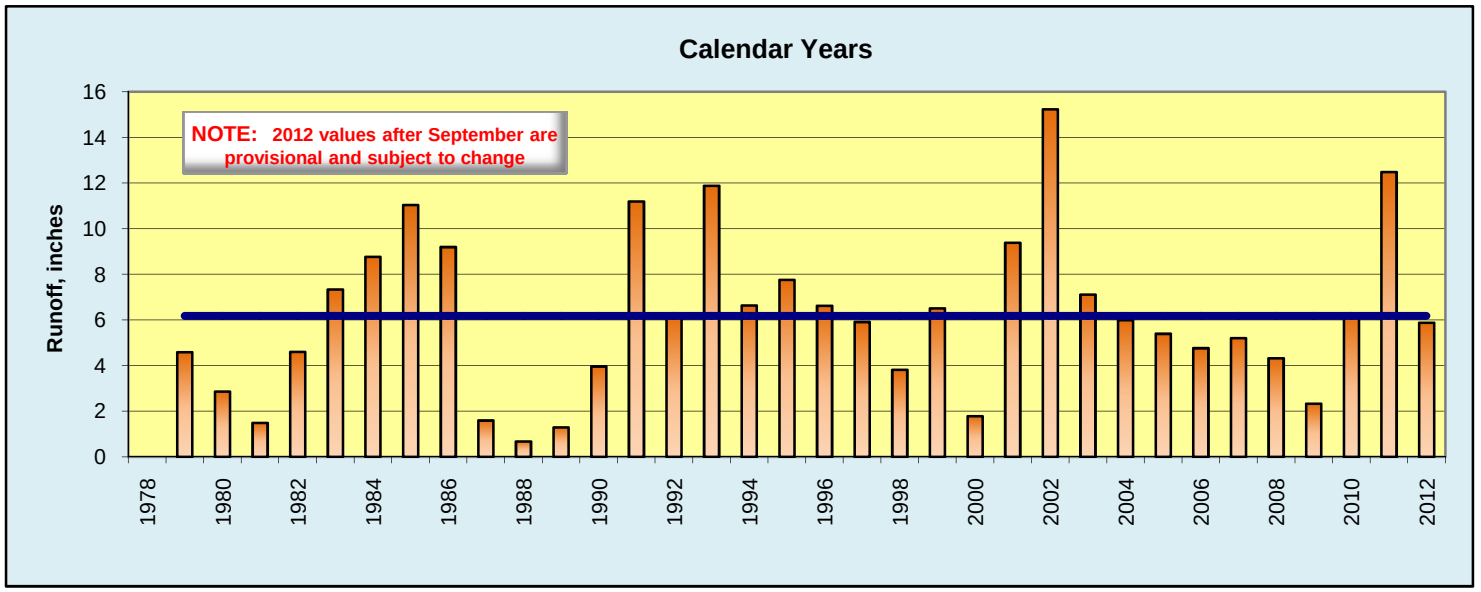
(Selected parameters)

USGS Parameter #			P00095	P00340	P00400	P00530	P00608	P00613	P00625	P00631	P00665	P00666	P00940
DATE & TIME			Sp Cond µS/cm	COD mg/L	pH	TSS mg/L	Ammonia mg/L	Nitrite mg/L	Total N mg/L	Dissolved NO2+NO3 mg/L	Total P mg/L	Dissolved P mg/L	Dissolved Chloride mg/L
12-Mar-12	08:36	to		60		31	0.526	0.014	2.1	0.336	0.43	0.27	67.1
13-Mar-12	08:36												
15-Apr-12	04:29	to	591	40	7.3	18	0.081	0.011	1.1	0.153	0.12	0.07	74.5
17-Apr-12	07:30												
1-May-12	23:59	to		40		36	0.049	0.015	1.2	0.231	0.21	0.10	79.3
4-May-12	03:00												
4-May-12	10:38	to		40		30	0.041	0.013	1.2	0.266	0.21	0.12	73.3
7-May-12	07:58												
23-May-12	23:16	to	380	40	7.9	30	0.021	0.051	1.1	1.070	0.25	0.18	40.2
26-May-12	11:17												
18-Jun-12	13:30	to		40		< 30	0.062	0.014	1.2	0.123	0.31	0.20	36.3
20-Jun-12	22:31												

USGS Parameters

P00010 - Temperature, water, degrees Celsius
P00020 - Temperature, air, degrees Celsius
P00025 - Barometric pressure, millimeters of mercury
P00061 - Discharge, instantaneous, cubic feet per second
P00095 - Specific conductance, water, unfiltered, microsiemens per centimeter at 25 degrees Celsius
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 - Residue, total nonfilterable, milligrams per liter
P00535 - Loss on ignition, from nonfilterable residue, milligrams per liter
P00608 - Ammonia, water, filtered, milligrams per liter as nitrogen
P00613 - Nitrite, 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
P00666 - Phosphorus, water, filtered, milligrams per liter
P00940 - Chloride, water, filtered, milligrams per liter


Water Years
Runoff, inches
0
2
4
6
8
10
12
14
16
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012


Calendar Years
NOTE: 2012 values after September are provisional and subject to change
Runoff, inches
0
2
4
6
8
10
12
14
16
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012

U.S. DEPARTMENT OF THE INTERIOR - U.S. GEOLOGICAL SURVEY - WATER RESOURCES
Station No 05287890 Elm Creek Nr Champlin, MN SourceAgencyUSGSState 27 County 053
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
Daily Mean Values Discharge, cubic feet per second[e, estimated]

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	e2.1	e1.9	2.3	1.5	1.8	19	24	430	61	19	e2.1
2	2.7	e2.1	e2.0	2.2	1.5	1.9	17	48	389	54	17	e2.0
3	2.7	e2.1	e2.0	2.3	1.5	1.9	15	77	345	56	14	e2.0
4	2.7	e2.1	e2.0	2.2	1.5	2.2	13	110	297	52	17	e1.9
5	2.7	e2.1	e1.9	2.2	1.5	2.2	13	122	245	46	16	e1.9
6	2.8	e2.0	e1.9	2.1	1.6	2.2	12	173	196	41	13	e1.9
7	e2.8	e2.0	e1.9	2.2	1.6	3.7	11	239	162	41	11	e1.8
8	e2.8	e2.0	e1.9	2.1	1.6	5.3	11	249	137	36	9.2	e1.8
9	e2.9	e2.0	e1.8	2.1	1.5	5.6	10	250	114	31	8.2	e1.7
10	e2.9	e2.0	e1.9	2.2	1.6	6.6	8.8	239	96	27	7.2	e1.7
11	e2.9	e2.0	e2.0	2.1	1.6	19	7.6	214	107	22	6.2	e1.6
12	e3.2	e2.0	e2.1	2.1	1.7	35	6.8	185	102	18	5.8	e1.5
13	e3.9	e1.9	e2.2	e2.0	1.6	46	7.0	159	95	16	5.6	e1.5
14	e3.3	e1.9	e2.4	e1.9	1.6	57	7.4	134	95	17	4.9	e1.5
15	e3.1	e1.9	e2.6	e1.9	1.6	61	11	112	98	16	4.8	e1.4
16	e3.0	e1.9	e2.5	e1.9	1.6	60	26	92	98	13	4.7	e1.4
17	e2.9	e1.9	2.4	e1.9	1.6	59	30	78	99	11	4.3	e1.6
18	e2.9	e1.9	2.4	e1.7	1.6	56	36	65	110	13	4.0	e2.6
19	e2.8	e2.0	2.4	e1.7	1.6	51	38	54	124	23	3.9	e2.5
20	e2.7	e2.0	2.3	e1.6	1.6	52	37	51	143	21	3.7	e1.7
21	e2.6	e2.0	2.4	e1.5	1.7	48	36	46	154	21	3.5	e1.5
22	e2.5	e2.0	2.3	e1.5	1.6	45	38	41	164	21	3.4	e1.3
23	e2.4	e2.0	2.3	e1.5	1.6	43	37	38	165	19	e3.0	e1.2
24	e2.3	e1.9	2.2	e1.5	1.6	39	36	134	154	21	e2.8	e1.0
25	e2.3	e1.9	2.3	e1.5	1.6	34	34	278	135	25	e2.7	e1.0
26	e2.2	e2.0	2.2	e1.5	1.7	30	31	342	117	25	e2.5	e0.90
27	e2.2	e1.9	2.3	1.5	1.6	27	28	406	101	24	e2.5	e0.90
28	e2.2	e1.9	2.3	1.5	1.6	25	26	511	89	24	e2.4	e0.80
29	e2.1	e1.9	2.3	1.5	e2.2	21	26	534	78	25	e2.3	e0.80
30	e2.1	e1.9	2.3	1.5	---	23	25	509	68	25	e2.2	e0.80
31	e2.1	---	2.4	1.5	---	22	---	471	---	22	e2.2	---

Statistics for Water Year October 2011 to September 2012

Total	83.6	59.3	67.8	57.2	46.7	886.4	653.6	5,985	4,707	867	209.0	46.30
Mean	2.70	1.98	2.19	1.85	1.61	28.6	21.8	193	157	28.0	6.74	1.54
Max	3.9	2.1	2.6	2.3	2.2	61	38	534	430	61	19	2.6
Min	2.1	1.9	1.8	1.5	1.5	1.8	6.8	24	68	11	2.2	0.80
Ac-ft	166	118	134	113	93	1,760	1,300	11,870	9,340	1,720	415	92
Cfsm	0.03	0.02	0.03	0.02	0.02	0.33	0.25	2.24	1.82	0.33	0.08	0.02
Inches	0.04	0.03	0.03	0.02	0.02	0.38	0.28	2.59	2.04	0.38	0.09	0.02

Statistics of monthly mean data for 1979-2012,byWaterYear(WY)

Mean	32.7	20.7	10.2	5.58	9.25	64.1	101	78.0	54.8	39.2	27.5	25.9
Max	240	67.4	41.3	22.0	99.1	189	414	255	196	157	151	170
(WY)	(1986)	(1994)	(1992)	(1992)	(1984)	(2011)	(2001)	(2011)	(2004)	(1993)	(2002)	(1991)
Min	1.13	1.03	0.92	0.74	0.91	3.86	5.31	3.54	1.34	0.76	1.37	1.08
(WY)	(1990)	(1990)	(1990)	(1991)	(1990)	(2001)	(1987)	(2000)	(1988)	(1988)	(2008)	(1988)

Summary Statistics	Calendar Year 2011		Water Year 2012		Water Years 1979 - 2012	
Annual total	28,870.9		13,668.90			
Annual mean	79.1		37.3		39.1	
Highest annual mean					86.4	2011
Lowest annual mean					4.54	1988
Highest daily mean	723	May 24	534	May 29	815	Apr 25, 2001
Lowest daily mean	1.8	Dec 9	[a]0.80	Sep 28	0.31	Jun 30, 1988
Annual seven-day minimum	1.9	Dec 4	0.89	Sep 24	0.35	Jun 26, 1988
Maximum peak flow			568	May 29	875	Apr 25, 2001
Maximum peak stage			9.43	May 29	10.02	Apr 25, 2001
Instantaneous low flow			[b]0.80	Sep 28	0.29	Jul 9, 1989
Annual runoff (ac-ft)	57,270		27,110		28,350	
Annual runoff (cfsm)	0.920		0.434		0.455	
Annual runoff (inches)	12.49		5.91		6.18	
10 percent exceeds	221		111		110	
50 percent exceeds	30		2.8		11	
90 percent exceeds	2.1		1.6		1.6	

[a]Estimated, backwater from beaver dam, also occurred Sept. 29, 30.
[b] Estimated daily-mean discharge, backwater from beaver dam, falling discharge.

U.S. Geological Survey
Elm Creek Near Champlin, Station Number 5287890
Selected Water-Quality Data for Water Year 2012

agency cd	site no	sample dt	sample tm	sample end dt	sample end tm	sample start time datum cd	tm datum rlbty cd	coll ent cd	medium cd	tu id	body part id	p00004	p00010	p00020	p00025	p00061	p00063
5s	15s	10d	4d	10d	4d	1s	1s	8s	1s	11s	11s	12s	12s	12s	12s	12s	12s
USGS	5287890	13-Oct-11	12:00			CDT	K	USGSMNWC	WS			16	12.5		730	1.2	3
USGS	5287890	14-Nov-11	12:30			CST	K	USGSMNWC	WS			26	5.5	6.7	724	1.9	5
USGS	5287890	8-Dec-11	14:00			CST	K	USGSMNWC	WS				0.4	-5	740	2.5	
USGS	5287890	10-Jan-12	11:30			CST	K	USGSMNWC	WS			20	1.4	0	734	2.1	5
USGS	5287890	17-Feb-12	09:30			CST	K	USGSMNWC	WS			22	1.7	4	737	1.7	5
USGS	5287890	12-Mar-12	08:36	13-Mar-12	08:36	CDT	K	USGSMNWC	WS								
USGS	5287890	21-Mar-12	12:00			CDT	K	USGSMNWC	WS			30	11.6	15	738	46	10
USGS	5287890	15-Apr-12	04:29	17-Apr-12	07:30	CDT	K	USGSMNWC	WS								
USGS	5287890	17-Apr-12	09:30			CDT	K	USGSMNWC	WS			30	7.1	10	746	27	10
USGS	5287890	1-May-12	23:59	4-May-12	03:00	CDT	K	USGSMNWC	WS								
USGS	5287890	4-May-12	10:38	7-May-12	07:58	CDT	K	USGSMNWC	WS								
USGS	5287890	17-May-12	10:30			CDT	K	USGSMNWC	WS			32	16.9	19.4	738	78	10
USGS	5287890	23-May-12	23:16	26-May-12	11:17	CDT	K	USGSMNWC	WS								
USGS	5287890	11-Jun-12	10:00			CDT	K	USGSMNWC	WS			34	21.4		735	107	10
USGS	5287890	18-Jun-12	13:30	20-Jun-12	22:31	CDT	K	USGSMNWC	WS								
USGS	5287890	2-Aug-12	10:00			CDT	K	USGSMNWC	WS			30	23.5		736	12	10
USGS	5287890	15-Aug-12	12:00			CDT	K	USGSMNWC	WS				18		734	4.9	5
USGS	5287890	26-Sep-12	12:00			CDT	K	USGSMNWC	WS			30	9.1		744	0.9	5
USGS	5287890	15-Oct-12	13:30			CDT	K	USGSMNWC	WS			28	8		737	0.48	3
USGS	5287890	6-Dec-12	13:30			CST	K	USGSMNWC	WS								

U.S. Geological Survey
Elm Creek Near Champlin, Station Number 5287890
Selected Water-Quality Data for Water Year 2012

sample dt	sample tm	sample end dt	sample end tm	p00065	p00095	p00191	p00300	p00301	p00340	p00400	p00530	p00535	p00540	p00600	p00605	p00608	p00610
10d	4d	10d	4d	12s	12s	12s	12s	12s	12s	12s	12s	12s	12s	12s	12s	12s	12s
13-Oct-11	12:00			3.49	671	0.00004	4.1	40	30	7.5	21	< 10	< 21	0.87	0.79	0.033	0.04
14-Nov-11	12:30			3.5	705	0.00003	10.3	86	20	7.6	< 15	< 10	< 15	< 0.51	0.45	0.014	< 0.02
8-Dec-11	14:00			3.43	777	0.00002	< 10.9	< 78	10	7.7	< 15	< 10	< 15	0.68	0.37	0.11	0.12
10-Jan-12	11:30			3.28	707	0.00002	11.8	88	10	7.6	< 15	< 10	< 15	0.72	0.35	0.157	0.17
17-Feb-12	09:30			3.22	730	0.00003	10.1	75	< 10	7.6	< 15	< 10	< 15	0.49	0.27	0.089	0.1
12-Mar-12	08:36	13-Mar-12	08:36						60		31			2.5	1.5	0.526	0.58
21-Mar-12	12:00			4.85	511	0.00005	8.5	80	40	7.3	22	11	11	2	1.3	0.339	0.38
15-Apr-12	04:29	17-Apr-12	07:30		591	0.00005			40	7.3	18			1.2	1	0.081	0.08
17-Apr-12	09:30			4.33	622	0.00005	9	76	40	7.3	< 15	< 10	< 15	1.2	1	0.053	0.05
1-May-12	23:59	4-May-12	03:00						40		36			1.4	1.1	0.049	0.05
4-May-12	10:38	7-May-12	07:58						40		30			1.5	1.2	0.041	0.06
17-May-12	10:30			5.37	530	0.00005	6.8	72	30	7.4	< 15	< 10	< 15	1.2	1.1	0.041	0.04
23-May-12	23:16	26-May-12	11:17		380	0.00001			40	7.9	30			2.2	1.1	0.021	0.08
11-Jun-12	10:00			5.94	407	0.00008	4.9	57	50	7.1	34	18	16	1.6	1.4	0.146	0.17
18-Jun-12	13:30	20-Jun-12	22:31						40		< 30			1.4	1.1	0.062	0.09
2-Aug-12	10:00			3.82	484	0.00004	5.1	63	50	7.4	< 15	< 10	< 15	1.7	1.3	0.116	0.18
15-Aug-12	12:00			3.3	560	0.00006	6.9	75	30	7.3	< 15	< 10	< 15	1.2	0.78	0.098	0.13
26-Sep-12	12:00			3.37	703	0.00004	8.5	75	< 10	7.4	< 15	< 10	< 15	0.31	0.23	0.016	0.03
15-Oct-12	13:30			3.54	707	0.00004	6.4	56	10	7.4	< 15	< 10	< 15	< 0.26	< 0.22	< 0.010	< 0.02
6-Dec-12	13:30					0.00002		83						0.41	0.24	0.096	0.11

U.S. Geological Survey
Elm Creek Near Champlin, Station Number 5287890
Selected Water-Quality Data for Water Year 2012

sample dt	sample tm	sample end dt	sample end tm	p00613	p00618	p00625	p00631	p00665	p00666	p00940	p30207	p30209	p50015	p50280	p71845	p71846
10d	4d	10d	4d	12s	12s	12s	12s	12s	12s	12s	12s	12s	12s	12s	12s	12s
13-Oct-11	12:00			0.004	0.029	0.83	0.03	0.24	0.13	24.8	1.06	0.03		1099	0.055	0.043
14-Nov-11	12:30			0.003	< 0.037	0.47	< 0.040	0.08	0.03	23.3	1.07	0.05		1099	< 0.026	0.018
8-Dec-11	14:00			0.005	0.191	0.49	0.196	0.06	< 0.02	36.1	1.05	0.07		1099	0.157	0.142
10-Jan-12	11:30			0.005	0.192	0.52	0.197	0.07	0.02	30.1	1	0.06		1099	0.216	0.203
17-Feb-12	09:30			0.003	0.107	0.38	0.11	0.04	0.03	24.8	0.98	0.05		1099	0.134	0.114
12-Mar-12	08:36	13-Mar-12	08:36	0.014	0.322	2.1	0.336	0.43	0.27	67.1				1099	0.752	0.677
21-Mar-12	12:00			0.036	0.305	1.7	0.341	0.18	0.1	63	1.48	1.3	0.1	1099	0.483	0.437
15-Apr-12	04:29	17-Apr-12	07:30	0.011	0.143	1.1	0.153	0.12	0.07	74.5				1099	0.106	0.104
17-Apr-12	09:30			0.006	0.131	1.1	0.137	0.12	0.07	90.9	1.32	0.76	0.3	1099	0.058	0.068
1-May-12	23:59	4-May-12	03:00	0.015	0.216	1.2	0.231	0.21	0.1	79.3				1099	0.068	0.063
4-May-12	10:38	7-May-12	07:58	0.013	0.254	1.2	0.266	0.21	0.12	73.3				2001	0.075	0.053
17-May-12	10:30			0.002	0.059	1.2	0.062	0.19	0.14	59	1.64	2.2		1099	0.053	0.053
23-May-12	23:16	26-May-12	11:17	0.051	1.02	1.1	1.07	0.25	0.18	40.2				1099	0.099	0.027
11-Jun-12	10:00			0.012	0.066	1.6	0.079	0.45	0.27	32	1.81	3		1099	0.22	0.189
18-Jun-12	13:30	20-Jun-12	22:31	0.014	0.109	1.2	0.123	0.31	0.2	36.3				1099	0.116	0.08
2-Aug-12	10:00			0.028	0.143	1.5	0.171	0.37	0.26	42.4	1.16	0.34		1001	0.233	0.15
15-Aug-12	12:00			0.037	0.209	0.91	0.246	0.2	0.12	33.9	1.01	0.14		1001	0.171	0.127
26-Sep-12	12:00			0.002	0.05	0.26	0.052	0.07	0.05	12.6	1.03	0.03		1001	0.033	0.021
15-Oct-12	13:30			< 0.001	< 0.040	0.22	< 0.040	0.1	0.09	13.2	1.08	0.01		1001	< 0.026	< 0.013
6-Dec-12	13:30			0.006	0.047	0.35	0.053	0.07	0.02		0.95	0.04			0.142	0.123

U.S. Geological Survey
Elm Creek Near Champlin, Station Number 5287890
Selected Water-Quality Data for Water Year 2012

sample dt	sample tm	sample end dt	sample end tm	p71851	p71856	p71999	p72104	p72105	p81904	p82398	p84164	p84171
10d	4d	10d	4d	12s	12s	12s	12s	12s	12s	12s	12s	12s
13-Oct-11	12:00			0.128	0.013	10	150		< 0.10	70	3070	
14-Nov-11	12:30			< 0.164	0.01	10	400		0.14	70	3070	10
8-Dec-11	14:00			0.845	0.017	10	20			70	3070	10
10-Jan-12	11:30			0.851	0.017	10	250		0.2	70	3070	10
17-Feb-12	09:30			0.472	0.011	10	200		E 0.10	70	3070	10
12-Mar-12	08:36	13-Mar-12	08:36	1.43	0.045	10				25	4115	10
21-Mar-12	12:00			1.35	0.118	10	2		0.92	15	3060	10
15-Apr-12	04:29	17-Apr-12	07:30	0.631	0.035	10				25	4115	10
17-Apr-12	09:30			0.58	0.02	10		10	E 0.80	15	3060	10
1-May-12	23:59	4-May-12	03:00	0.955	0.049	10				25	4115	10
4-May-12	10:38	7-May-12	07:58	1.12	0.042	10				25	4115	10
17-May-12	10:30			0.261	0.008	10		20	E 0.70	15	3060	10
23-May-12	23:16	26-May-12	11:17	4.5	0.168	10				25	4115	10
11-Jun-12	10:00			0.294	0.04	10		20	E 1.00	20	3060	10
18-Jun-12	13:30	20-Jun-12	22:31	0.483	0.046	10				25	4115	10
2-Aug-12	10:00			0.633	0.092	10		20		40	3070	10
15-Aug-12	12:00			0.927	0.121	10		20		40	3070	10
26-Sep-12	12:00			0.222	0.007	10		20	0.04	40	3070	10
15-Oct-12	13:30			< 0.177	< 0.003	10		30		40	3070	10
6-Dec-12	13:30			0.208	0.021							

U.S. Geological Survey
Elm Creek Near Champlin, Station Number 5287890
Selected Water-Quality Data for Water Year 2012

U.S. Geological Survey

This file contains selected water-quality data for stations in the National Water Information System Water-quality database. Explanations of codes found in this file are followed by the retrieved data.

The data you have secured from the USGS NWISWeb database may include data that have not received Director's approval and as such are provisional and subject to revision. The data are released on the condition that neither the USGS nor the United States Government may be held liable for any damages resulting from its authorized or unauthorized use.

To view additional data-quality attributes output the results using these options:
one result per row, expanded attributes. Additional precautions are at:
http://waterdata.usgs.gov/nwis/qwdata?help#Data_retrievals_precautions.

agency_cd ..... - Agency Code P00625
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
P00020 ..... - Temperature, air, degrees Celsius
P00025 ..... - Barometric pressure, millimeters of mercury
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, water, unfiltered, milligrams per liter
P00605 ..... - Organic nitrogen, water, unfiltered, milligrams per liter
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
- 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
P30209 ..... - Discharge, instantaneous, cubic meters per second
P50015 ..... - Transit rate, sampler, feet 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
P71856 ..... - Nitrite, water, filtered, milligrams per liter
P71999 ..... - Sample purpose, code
P72104 ..... - Sample location, distance downstream, feet
P72105 ..... - Sample location, distance upstream, feet
P81904 ..... - Velocity at point in stream, feet per second
P82398 ..... - Sampling method, code
P84164 ..... - Sampler type, code
P84171 ..... - Sample splitter type, field, code

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

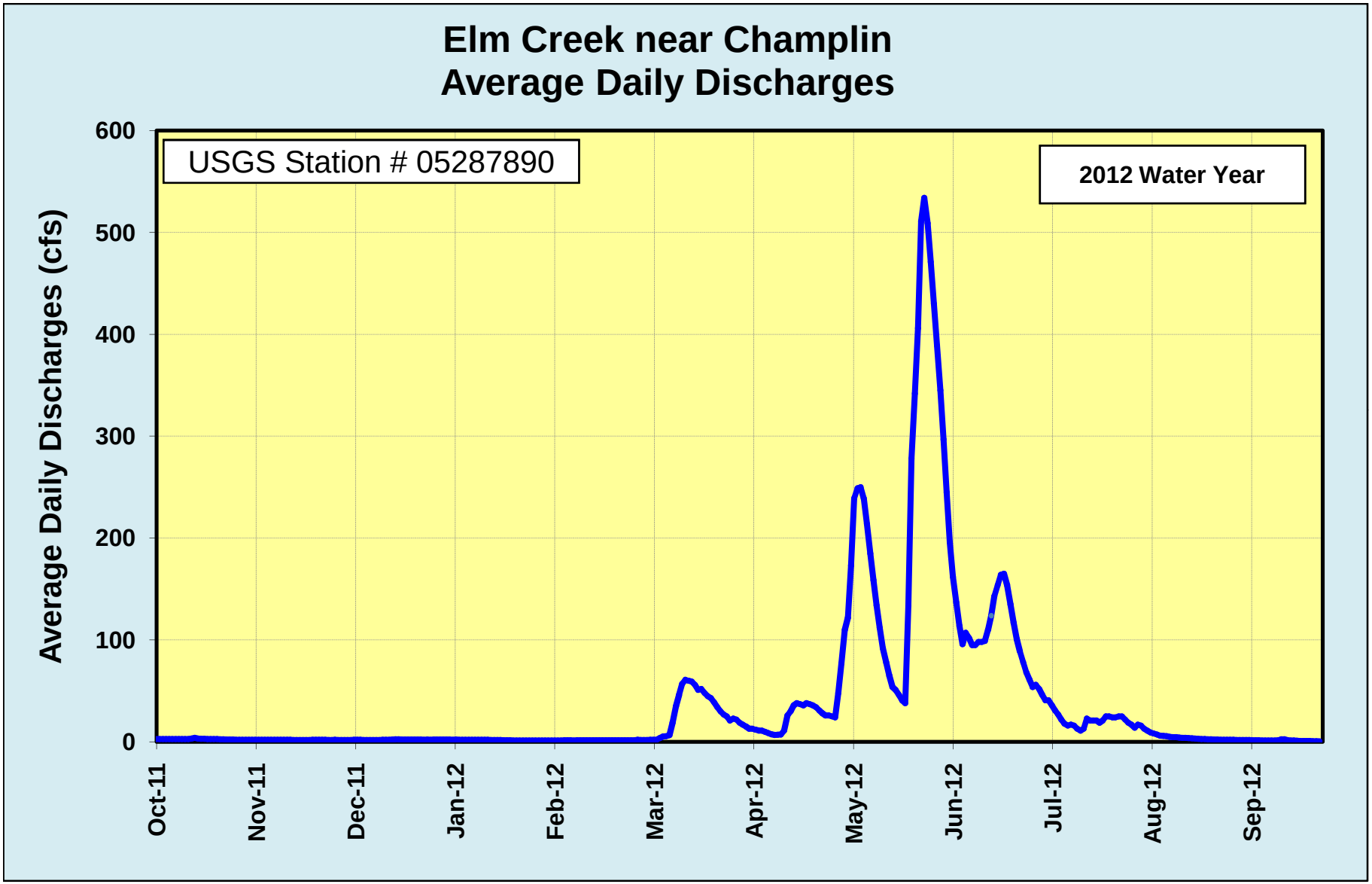
Description of medium_cd:WS - Surface water

Description of tu_id: http://www.itis.gov/

Description of body_part_id:

Description of remark_cd:
< - less than
E - estimated

Data for the following sites are included: USGS 05287890 ELM CREEK NR CHAMPLIN, MN


Elm Creek near Champlin
Average Daily Discharges
USGS Station # 05287890
2012 Water Year
Average Daily Discharges (cfs)
600
500
400
300
200
100
0
Oct-11
Nov-11
Dec-11
Jan-12
Feb-12
Mar-12
Apr-12
May-12
Jun-12
Jul-12
Aug-12
Sep-12

2012 Average Daily Discharges Elm Creek near Champlin

Date	Flow (cfs)	Date	Flow (cfs)	Date	Flow (cfs)	Date	Flow (cfs)
November 17, 2011	1.9	January 1, 2012	2.3	February 15, 2012	1.6	March 31, 2012	22
November 18, 2011	1.9	January 2, 2012	2.2	February 16, 2012	1.6	April 1, 2012	19
November 19, 2011	2	January 3, 2012	2.3	February 17, 2012	1.6	April 2, 2012	17
November 20, 2011	2	January 4, 2012	2.2	February 18, 2012	1.6	April 3, 2012	15
November 21, 2011	2	January 5, 2012	2.2	February 19, 2012	1.6	April 4, 2012	13
November 22, 2011	2	January 6, 2012	2.1	February 20, 2012	1.6	April 5, 2012	13
November 23, 2011	2	January 7, 2012	2.2	February 21, 2012	1.7	April 6, 2012	12
November 24, 2011	1.9	January 8, 2012	2.1	February 22, 2012	1.6	April 7, 2012	11
November 25, 2011	1.9	January 9, 2012	2.1	February 23, 2012	1.6	April 8, 2012	11
November 26, 2011	2	January 10, 2012	2.2	February 24, 2012	1.6	April 9, 2012	10
November 27, 2011	1.9	January 11, 2012	2.1	February 25, 2012	1.6	April 10, 2012	8.8
November 28, 2011	1.9	January 12, 2012	2.1	February 26, 2012	1.7	April 11, 2012	7.6
November 29, 2011	1.9	January 13, 2012	2	February 27, 2012	1.6	April 12, 2012	6.8
November 30, 2011	1.9	January 14, 2012	1.9	February 28, 2012	1.6	April 13, 2012	7
December 1, 2011	1.9	January 15, 2012	1.9	February 29, 2012	2.2	April 14, 2012	7.4
December 2, 2011	2	January 16, 2012	1.9	March 1, 2012	1.8	April 15, 2012	11
December 3, 2011	2	January 17, 2012	1.9	March 2, 2012	1.9	April 16, 2012	26
December 4, 2011	2	January 18, 2012	1.7	March 3, 2012	1.9	April 17, 2012	30
December 5, 2011	1.9	January 19, 2012	1.7	March 4, 2012	2.2	April 18, 2012	36
December 6, 2011	1.9	January 20, 2012	1.6	March 5, 2012	2.2	April 19, 2012	38
December 7, 2011	1.9	January 21, 2012	1.5	March 6, 2012	2.2	April 20, 2012	37
December 8, 2011	1.9	January 22, 2012	1.5	March 7, 2012	3.7	April 21, 2012	36
December 9, 2011	1.8	January 23, 2012	1.5	March 8, 2012	5.3	April 22, 2012	38
December 10, 2011	1.9	January 24, 2012	1.5	March 9, 2012	5.6	April 23, 2012	37
December 11, 2011	2	January 25, 2012	1.5	March 10, 2012	6.6	April 24, 2012	36
December 12, 2011	2.1	January 26, 2012	1.5	March 11, 2012	19	April 25, 2012	34
December 13, 2011	2.2	January 27, 2012	1.5	March 12, 2012	35	April 26, 2012	31
December 14, 2011	2.4	January 28, 2012	1.5	March 13, 2012	46	April 27, 2012	28
December 15, 2011	2.6	January 29, 2012	1.5	March 14, 2012	57	April 28, 2012	26
December 16, 2011	2.5	January 30, 2012	1.5	March 15, 2012	61	April 29, 2012	26
December 17, 2011	2.4	January 31, 2012	1.5	March 16, 2012	60	April 30, 2012	25
December 18, 2011	2.4	February 1, 2012	1.5	March 17, 2012	59	May 1, 2012	24
December 19, 2011	2.4	February 2, 2012	1.5	March 18, 2012	56	May 2, 2012	48
December 20, 2011	2.3	February 3, 2012	1.5	March 19, 2012	51	May 3, 2012	77
December 21, 2011	2.4	February 4, 2012	1.5	March 20, 2012	52	May 4, 2012	110
December 22, 2011	2.3	February 5, 2012	1.5	March 21, 2012	48	May 5, 2012	122
December 23, 2011	2.3	February 6, 2012	1.6	March 22, 2012	45	May 6, 2012	173
December 24, 2011	2.2	February 7, 2012	1.6	March 23, 2012	43	May 7, 2012	239
December 25, 2011	2.3	February 8, 2012	1.6	March 24, 2012	39	May 8, 2012	249
December 26, 2011	2.2	February 9, 2012	1.5	March 25, 2012	34	May 9, 2012	250
December 27, 2011	2.3	February 10, 2012	1.6	March 26, 2012	30	May 10, 2012	239
December 28, 2011	2.3	February 11, 2012	1.6	March 27, 2012	27	May 11, 2012	214
December 29, 2011	2.3	February 12, 2012	1.7	March 28, 2012	25	May 12, 2012	185
December 30, 2011	2.3	February 13, 2012	1.6	March 29, 2012	21	May 13, 2012	159
December 31, 2011	2.4	February 14, 2012	1.6	March 30, 2012	23	May 14, 2012	134

2012 Average Daily Discharges Elm Creek near Champlin

Date	Flow (cfs)	Date	Flow (cfs)	Date	Flow (cfs)	Date	Flow (cfs)
May 15, 2012	112	June 29, 2012	78	August 13, 2012	5.6	September 27, 2012	0.9
May 16, 2012	92	June 30, 2012	68	August 14, 2012	4.9	September 28, 2012	0.8
May 17, 2012	78	July 1, 2012	61	August 15, 2012	4.8	September 29, 2012	0.8
May 18, 2012	65	July 2, 2012	54	August 16, 2012	4.7	September 30, 2012	0.8
May 19, 2012	54	July 3, 2012	56	August 17, 2012	4.3		
May 20, 2012	51	July 4, 2012	52	August 18, 2012	4		
May 21, 2012	46	July 5, 2012	46	August 19, 2012	3.9		
May 22, 2012	41	July 6, 2012	41	August 20, 2012	3.7		
May 23, 2012	38	July 7, 2012	41	August 21, 2012	3.5		
May 24, 2012	134	July 8, 2012	36	August 22, 2012	3.4		
May 25, 2012	278	July 9, 2012	31	August 23, 2012	3		
May 26, 2012	342	July 10, 2012	27	August 24, 2012	2.8		
May 27, 2012	406	July 11, 2012	22	August 25, 2012	2.7		
May 28, 2012	511	July 12, 2012	18	August 26, 2012	2.5		
May 29, 2012	534	July 13, 2012	16	August 27, 2012	2.5		
May 30, 2012	509	July 14, 2012	17	August 28, 2012	2.4		
May 31, 2012	471	July 15, 2012	16	August 29, 2012	2.3		
June 1, 2012	430	July 16, 2012	13	August 30, 2012	2.2		
June 2, 2012	389	July 17, 2012	11	August 31, 2012	2.2		
June 3, 2012	345	July 18, 2012	13	September 1, 2012	2.1		
June 4, 2012	297	July 19, 2012	23	September 2, 2012	2		
June 5, 2012	245	July 20, 2012	21	September 3, 2012	2		
June 6, 2012	196	July 21, 2012	21	September 4, 2012	1.9		
June 7, 2012	162	July 22, 2012	21	September 5, 2012	1.9		
June 8, 2012	137	July 23, 2012	19	September 6, 2012	1.9		
June 9, 2012	114	July 24, 2012	21	September 7, 2012	1.8		
June 10, 2012	96	July 25, 2012	25	September 8, 2012	1.8		
June 11, 2012	107	July 26, 2012	25	September 9, 2012	1.7		
June 12, 2012	102	July 27, 2012	24	September 10, 2012	1.7		
June 13, 2012	95	July 28, 2012	24	September 11, 2012	1.6		
June 14, 2012	95	July 29, 2012	25	September 12, 2012	1.5		
June 15, 2012	98	July 30, 2012	25	September 13, 2012	1.5		
June 16, 2012	98	July 31, 2012	22	September 14, 2012	1.5		
June 17, 2012	99	August 1, 2012	19	September 15, 2012	1.4		
June 18, 2012	110	August 2, 2012	17	September 16, 2012	1.4		
June 19, 2012	124	August 3, 2012	14	September 17, 2012	1.6		
June 20, 2012	143	August 4, 2012	17	September 18, 2012	2.6		
June 21, 2012	154	August 5, 2012	16	September 19, 2012	2.5		
June 22, 2012	164	August 6, 2012	13	September 20, 2012	1.7		
June 23, 2012	165	August 7, 2012	11	September 21, 2012	1.5		
June 24, 2012	154	August 8, 2012	9.2	September 22, 2012	1.3		
June 25, 2012	135	August 9, 2012	8.2	September 23, 2012	1.2		
June 26, 2012	117	August 10, 2012	7.2	September 24, 2012	1		
June 27, 2012	101	August 11, 2012	6.2	September 25, 2012	1		
June 28, 2012	89	August 12, 2012	5.8	September 26, 2012	0.9		

River Watch 2012

Elm Creek Site #1, #17

Wayzata High School

Elm Creek Site #1 Grading History	
Year	Grade
2012	**No Data**
2011	C-
2001	C+
1999	C-
1998	C
1997	C-
1995	C+

Elm Creek #1 is located on the Elm Creek Golf Club off of Hwy 55 in Medina. Much of the surrounding area is manicured golf turf. New growth trees line the banks of the stream site.

Wayzata High School began monitoring this site in 1995 before the new high school was built and the school began sampling a different stretch of the stream (#17) on school property.

In 2011, Susie Newman began bringing her environmental studies students to sample this site. She now samples both sites #1 and #17.

The stream was sampled in Spring of 2012; however the sample was not available for data. The creek was dry in the fall of 2012.

Average grade
6 years
C

Elm Creek Site #17 Grading History	
Year	Grade
2012	**No Data**
2011	C
2010	C+
2009	C-
2008	C-
2007	C-
2006	C+
1999	C-
1998	C

Elm Creek #17 is located near the crossing of Elm Creek and Peony Lane, on the **Wayzata High School** campus. Wayzata students began monitoring this site in 1998.

Environmental Studies teacher, Susie Newman, has been sampling this site with her classes since 2006.

The stream was sampled in Spring of 2012; however the sample was not available for data. This site is usually surveyed in both the spring and fall each year; however, in the fall of 2012, the creek was dry.

Average grade
8 years
C

River Watch 2012

Rush Creek Site #4
Kaleidoscope Charter School

Rush Creek Site #4 Grading History			
Year	Grade	Year	Grade
2012	**C**	2001	B-
2011	C-	2000	B
2010	C+	1999	B-
2009	C-	1998	C-
2008	C-	1997	C-
2007	B-		
2006	B-		
2004	C-		
2002	C-		

Average grade
14 years
C

Rush Creek is a tributary of Elm Creek. Rush Creek #4 is located near the intersection of 101st Avenue North and Lawndale Lane North in Maple Grove. The site is within a grazed pasture land. Cattle are often present in or near the stream. **Kaleidoscope Charter School**, led by Paula Higgins, has been sampling this site since 2006. In 2012, Brian Maertens took the lead in sampling this stream stretch. Kaleidoscope students successfully sample every spring and fall.

River Watch 2012

Rush Creek Site #6

Maple Grove

Spectrum High School

Elm Creek Site #6 Grading History			
Year	Grade	Year	Grade
2012	**C-**	1999	B+
2008	B-	1998	B+
2007	C+	1997	B-
2006	B-	1996	C+
2005	C+	1995	A-
2004	B-		
2003	B-		
2002	B		
2001	B		
2000	B		

Rush Creek is a tributary of Elm Creek. Rush Creek #6 is located downstream from Fernbrook Lane in the Elm Creek Park Reserve. Just upstream from this site, the south fork of Rush Creek joins the north fork.

In 2012, Kari Brant from **Spectrum High School** brought her students to the site to sample it. She plans to continue sampling this site in the future.

Rush Creek #6 has always shown high scores. Stoneflies have been found at this site during previous surveys.

Average grade
15 years
B-

Students participating

in the 2012 River Watch program.

Elm Creek Watershed Management Commission
Wetland Health Evaluation Program (WHEP)

Metric	ECP-1 Elm Creek Preserve	CHP-1 Crow Hassan Park	CHP-2 Crow Hassan Park	CHP-3 Crow Hassan Park
# Kinds of Leeches	3	5	3	3
% Corixidae	1	1	3	5
# Kinds of Odonata	3	3	1	1
# ETSD	3	5	3	1
# Kinds of Snails	1	3	3	1
Total Invertebrate Taxa	5	5	5	3
Invertebrate Totals (30 Max)	**16 Moderate C**	**22 Moderate B**	**18 Moderate C**	**14 Poor D**
Vascular Genera	3	3	3	5
Nonvascular Genera	5	5	1	5
Grasslike Genera	5	5	5	3
Carex Cover	1	1	3	5
Utricularia Presence	1	5	1	1
Aquatic Guild	3	3	3	3
Persistent Litter	5	5	5	5
Vegetation Totals (35 Max)	**23 Moderate C**	**27 Excellent B**	**21** Moderate **C**	**27 Excellent B**

2012 Stream Health Evaluation Program (SHEP)

Nine sites were monitored in the Elm Creek watershed in 2012. Results from the 2012 monitoring will be available in mid-2013. To view the latest available reports go to www.hennepin.us, keyword SHEP.

In 2008, Hennepin County Environmental Services (HCES) partnered with the Elm Creek Watershed Management Commission to initiate a new stream monitoring program. The program consists of three elements:

- **River Watch** focuses on stream monitoring using High School students in their classroom setting to gather data.
- The **Wetland Health Evaluation Program** (WHEP) recruits adult volunteers to monitor biological health of wetlands throughout the County.
- Using the same parameters as WHEP, the **Stream Health Evaluation Program** (SHEP) started monitoring streams in the fall of 2008. The pilot program consisted of one team of adult volunteers monitoring seven sites in the Elm Creek Watershed.

Staff from HCES partnered with Three Rivers Parks District staff to choose the SHEP sites for monitoring within the Elm Creek Watershed. The sites chosen were at one time part of the River Watch program and also within the Park district boundaries.

The protocol used in SHEP is the 'multi-habitat" method which has been adapted for volunteer use by the United States Environmental Protection Agency. To download the manual visit www.epa.gov/volunteer/stream.

All samples are collected by the SHEP team and processed using EPA methods. Identification is to the Family level and 100% of the samples are checked for accuracy by HCES staff. Data is entered into an excel spreadsheet and appropriate indices are calculated. Evaluation is performed using the multi-metric approach.

The Hennepin County SHEP team also participated in using a new protocol for volunteers monitoring the cast skins of Chironomidae. Along with the traditional macroinvertebrate sample, the team used a technique developed by UM Entomologist Dr. Len Ferrington. Dr. Ferrington spent an afternoon with the team training them on sampling protocols. The samples were preserved and analysis will be performed in conjunction with Dr. Ferrington's lab.

HCES will be working with a Master's student from Dr. Ferrington's lab and an employee of RMB Laboratories to hold a summer-long training session with the ultimate result being an identification key for volunteer use. Trained volunteers will then be able to identify these samples to the Genus/Species level for a finer assessment of water quality.

Elm Creek Watershed-wide TMDL Impairment Summary

Elm Creek Watershed Bacteria Impairments

Reach Name on 303(d) List/Description	Yr[12]	Assessment Unit ID[10]	Affected use	Pollutant or stressor[3]	Target start// completion[7]
Diamond Cr. – Headwaters (French L.) to Unnamed Lk	2010	07010206-525	Aquatic recreation	E. coli	2009//2014
Rush Creek – Headwaters to Elm Cr.	2010	07010206-528	Aquatic recreation	E. coli	2009//2014
Rush Cr., S. Fk – Unnamed lake to Rush Cr.	2010	07010206-532	Aquatic recreation	E. coli	2009//2014
Elm Creek – Headwaters (Lk Medina 27-0146-00) to Mississippi R	2010	07010206-508	Aquatic recreation	E. coli	2009//2014

Elm Creek Watershed Turbidity/TSS Impairments

Reach Name on 303(d) List/Description	Yr[12]	Assessment Unit ID[10]	Affected use	Pollutant or stressor[3]	Target start// completion[7]
NONE					

Elm Creek Watershed Low Dissolved Oxygen Impairments

Reach Name on 303(d) List/Description	Yr[12]	Assessment Unit ID[10]	Affected use	Pollutant or stressor[3]	Target start// completion[7]
Diamond Cr. – Headwaters (French L.) to Unnamed Lk	2010	07010206-525	Aquatic life	Dissolved oxygen	2009//2014
Rush Creek – Headwaters to Elm Creek	2010	07010206-528	Aquatic life	Dissolved oxygen	2009//2014
Elm Creek – Headwaters (Lk Medina 27-0146-00) to Mississippi R	2004	07010206-508	Aquatic life	Dissolved oxygen	2009//2014

Elm Creek Watershed Biotic Impairments

Reach Name on 303(d) List/Description	Yr[12]	Assessment Unit ID[10]	Affected use	Pollutant or stressor[3]	Target start// completion[7]
Rush Cr. – Headwaters to Elm Creek	2002	07010206-528	Aquatic life	Fish Bioassessments	2009//2013
Diamond Creek – Headwaters (French L) to Unnamed Lake	Proposed for 2014	07010206-525	Aquatic life	IBI Fish	2014/??
Diamond Creek – Headwaters (French L) to Unnamed Lake	Proposed for 2014	07010206-525	Aquatic life	IBI Inverts	2014/??
Rush Cr. – Headwaters to Elm Cr.	Proposed for 2014	07010206-528	Aquatic life	IBI Inverts	2014/??
Rush Cr., S. Fk. – Unnamed Lake to Rush Cr.	Proposed for 2014	07010206-732	Aquatic life	IBI Fish	2014/??
Rush Cr., S. Fk. – Unnamed Lake to Rush Cr	Proposed for 2014	07010206-732	Aquatic life	IBI Inverts	2014/??
S. Fk. Rush Cr. – Unnamed ditch to Co. Ditch 16	Proposed for 2014	07010206-760	Aquatic life	IBI Fish	2014/??
S. Fk. Rush Cr. – Unnamed ditch to Co. Ditch 16	Proposed for 2014	07010206-760	Aquatic life	IBI Inverts	2014/??
Elm Cr. – Headwaters (L. Medina) to Mississippi R.	Proposed for 2014	07010206-508	Aquatic life	IBI Fish	2014/??
Elm Cr. – Headwaters (L. Medina) to Mississippi R.	Proposed for 2014	07010206-508	Aquatic life	IBI Inverts	2014/??

Elm Creek Watershed Lake Nutrient Impairments

Name on 303(d) List/Description	Yr[12]	Assessment Unit ID[10]	Affected use	Pollutant or stressor[3]	Target start// completion[7]
Cowley Lake	2010	27-0169	Aquatic recreation	Nutrients	2009/2014
Diamond Lake	2006	27-0125	Aquatic recreation	Nutrients	2011/2016
Fish Lake	2008	27-0118	Aquatic recreation	Nutrients	2009/2014
French Lake	2004	27-0127	Aquatic recreation	Nutrients	2009-2014
Henry Lake	2008	27-0175	Aquatic recreation	Nutrients	2009/2014
Rice Lake - Main	2010	27-0116-01	Aquatic recreation	Nutrients	2009/2014
Rice Lake – West Bay	Proposed for 2014	27-0116-02	Aquatic recreation	Nutrients	2014/??

Plymouth Yard & Garden EXPO

FRIDAY, APRIL 13, 6-9 PM AND SATURDAY, APRIL 14, 9 AM-1 PM
PLYMOUTH CREEK CENTER, 14800 34TH AVE

$5 at the door
(Ages 16 and under are free)

Friday Date Night

All the expo has to offer, plus...

- Primavera Art Judging (7-8:30 PM)
- Truffles & Tortes© Chocolate
- Dunn Bros Coffee, Plymouth

Saturday Special

All the expo has to offer, plus...

- Primavera Floral Artist (11 AM-NOON)
- Truffles & Tortes© Chocolate
- Expo Plant Sale (1:15 P.M.)

Increase Your Home's Appeal

- Award winning landscape contractors
- Home interior & exterior remodelers
- Lawn, garden & home services
- Farmers Market
- Build a flower bouquet
- Eco-footprint learning center

Event Sponsors:

Len Busch Roses
12
Funfar Landscaping
Bartlett Tree Experts
Lakeshore Weekly News
Precision Chiropractic & Wellness
Step By Step Montessori Schools
SCC Kitchen·Bath·Home

PLYMOUTH PARKS & RECREATION
763-509-5200 | WWW.PLYMOUTHMN.GOV

Raingarden Workshop for Clean Water

Get ready for spring by planning a garden that beautifies your yard and helps keep our water clean.

Thursday, March 22, 2012

6-9 PM

Champlin Park High School

6025 109th Ave. N.

Champlin, MN 55316

Instructor: Michael Keenan, Metro Blooms Lead Landscape Designer

Workshop fee: $15

Whether you are an experienced gardener or have never tried gardening before, this eco-friendly gardening workshop will help you learn how to:

- Use native plants in your garden landscape
- Limit fertilizers and pesticides without compromising a beautiful yard
- Capture rainwater on site with rain gardens
- Redirect your downspouts
- Plan your own garden with one-on-one assistance from landscape designers

“Metro Blooms has been partnering with Twin Cities Metro communities to provide low-cost raingarden workshops since 2005,” said Metro Blooms Executive Director Becky Rice. “More than 5,000 residents have attended our workshops and over 2,000 raingardens have been installed.”

To register for the gardening workshop visit www.metroblooms.org or call 651.698.1390. Sponsored by the Shingle Creek, Elm Creek and West Mississippi Watershed Management Commissions and the City of Champlin.

Elm Creek Watershed Management Commission
2012 Operating Budget

	A	B	C	D	T	U	V	W	X
1					2010 Budget Revised	2010 Final	2011 Approved (corrected) Revised	2011 Final	2012 Approved
2	**Expenses**								
3		Administrative			77,500	72,158	78,500		79,500
4		Website			6,500	4,425	7,500		7,000
5		Legal Services			1,500	532	1,500		1,500
6		Audit			4,500	4,500	5,000		5,000
7		Insurance			4,000	2,959	4,000		4,000
8		Miscellaneous			500	300	1,000		1,000
9				***Subtotal***	***94,500***	***84,874***	***97,500***		***98,000***
10									
11		Project Reviews							
12			Technical - HCES		63,000	51,400	63,000		65,000
13			Technical Support - Consultant		7,000	1,059	7,000		3,000
14			Admin Support		10,000	6,891	10,000		9,000
15				***Subtotal***	***80,000***	***59,350***	***80,000***		***77,000***
16									
17		Wetland Conservation Act							
18			WCA Expense - HCES		9,250	1,056	9,250		6,500
19			WCA Expense - Legal		750	0	500		500
20			WCA Expense - Admin		3,500	1,051	3,000		3,000
21				***Subtotal***	***13,500***	***2,107***	***12,750***		***10,000***
22									
23		Water Monitoring							
24			Stream Monitoring		18,872				
25				Stream Monitoring - USGS	0	14,691	17,500		18,288
26				Stream Monitoring - TRPD					
27				Macroinvertebrate Monitoring-River V	6,000	6,000	6,000		6,000
28			Gauging Station - Elec Bill		150	104	150		170
29			Rain Gauge Network		700	570	1,000		100
30			Lake Monitoring						
31				Lake Monitoring - CAMP	1,650	1,030	1,650		1,700
32				Lake Monitoring - TRPD	3,400	3,400	3,400		3,500
33			Wetland Monitoring - WHEP		4,000	3,200	4,000		4,000
34			Stream Health (SHEP)		4,000	6,000	6,000		6,000
35				***Subtotal***	***38,772***	***34,995***	***39,700***		***39,758***
36									
37		Education							
38			Education - city/citizen programs		6,500	8,553	4,500		6,500
39			2011 Workshop Series				3,000		
40			WMWA Implementation Activities						3,000
41			Survey		0		0		0
42			Rain Garden Workshop		2,000	2,000	2,500		2,500
43			Education Grants		1,000	500	2,000	2,000	2,000
49				***Subtotal***	***9,500***	***11,053***	***12,000***		***14,000***
50									
51		Special Projects							
52			CWLA Grant				0		
53			Special Projects - general		3,000		5,000		5,000
54			South Metro Miss TMDL						500
55			Upper Miss Bacteria TMDL		0	23	100		500
58				***Subtotal***	***3,000***	***23***	***5,100***		***6,000***
59									
60		Contingency			1,728	0	3,600		3,600
61				***Subtotal***	***1,728***	***0***	***3,600***		***3,600***
62									
63				***Total Operating Budget***	***241,000***	***192,402***	***250,650***		***248,358***

Elm Creek Watershed Management Commission
2012 Operating Budget

	A	B	C	D	T	U	V	W	X
1					2010 Budget Revised	2010 Final	2011 Approved (corrected) Revised	2011 Final	2012 Approved
64									
65		Watershed-wide TMDL (see summary below)							
66			Commission contribution		35,000	24,955	10,000		20,000
67			TRPD/Commission Co-op Agreement		101,000	55,650	77,000		70,000
68			Administration		3,200	4,657	2,000		5,000
71				***Subtotal***	***139,200***	***85,262***	***89,000***		***95,000***
72									
73		Management Plan							
74			Second Gen Plan Amendment		0	11,243	15,000		
75			Third Gen Management Plan		0				20,000
76			Local Plan Review						
77				***Subtotal***	***0***	***11,243***	***15,000***		***20,000***
78									
79		Capital Improvement Projects							
80			CIPs/Studies/Project Identification		0	0	10,000		10,000
81			Capital Projects - Cost Share		0	0	0		15,000
82				***Subtotal***	***0***	***0***	***10,000***		***25,000***
83									
84				***Total All Expenses***	***380,200***	***288,907***	***364,650***		***388,358***
85	**Revenue**								
86		Project Review Fees			25,000	51,050	35,000		50,000
87		Water Monitoring - TRPD Co-op Agmt			3,500	4,296	4,000		5,500
88		BMP Implementation			0		0		0
89		WCA Fees			2,000	1,000	2,000		2,500
90		Forfeited sureties			0		0		0
91		Capital Project Funding			0		0		0
92		Membership Dues			180,000	180,000	188,000		193,000
93			Member Assess - Contribution to Reserves						0
94		Interest Income			1,000	172	1,500		300
95		CWLA Grant			0		0		0
96		Watershed-wide TMDL - MPCA			101,000	118,127	77,000		70,000
97		Miscellaneous Income			0		0		0
99		**Total Revenue**			**312,500**	**354,645**	**307,500**		**321,300**
100									
101	**Op Fund Surplus (Deficit) To (From) Cash Res**				**67,700**	**65,738**	**57,150**		**67,058**
102									
103	**Total Unencumbered Fund Balance, Beginning of Year**					**254,759**			**0**
104	**Total Unencumbered Fund Balance, End of Year**					**320,497**			**(67,058)**
105									
106	**Encumbered Funds - WCA (accum) (cash)**					**39,962**			
107	**Total All Funds, including Escrows and Sureties**					**360,459**			
108									
109									

Elm Creek Watershed Management Commission
2012 Member Assessments

2010	2009 Taxable Market Value		2010 Budget Share			Increase over Prev Year	
			%age	Dollars		%age	Dollars
Champlin	523,805,500		4.78%	8,600.55		-4.06%	-363.80
Corcoran	772,067,800		7.04%	12,676.86		-5.77%	-775.62
Dayton	569,842,400		5.20%	9,356.45		-0.83%	-78.36
Hassan	506,127,000		4.62%	8,310.28		-4.79%	-418.37
Maple Grove	5,907,276,800		53.89%	96,993.70		2.37%	2,244.72
Medina	841,805,700		7.68%	13,821.91		3.25%	434.42
Plymouth	662,359,500		6.04%	10,875.52		2.98%	314.58
Rogers	1,179,384,700		10.76%	19,364.74		-6.55%	-1,357.56
Totals	**10,962,669,400**		**100.00%**	**180,000.00**		0.00%	**0.00**
2011	**2010 Taxable Market Value**		**2011 Budget Share**			**Increase over Prev Year**	
			%age	**Dollars**		**%age**	**Dollars**
Champlin	488,685,600		4.75%	8,932.76		3.86%	332.21
Corcoran	704,789,600		6.85%	12,882.95		1.63%	206.10
Dayton	528,922,900		5.14%	9,668.26		3.33%	311.81
Hassan	406,303,500		3.95%	7,426.88		-10.63%	-883.40
Maple Grove	5,613,392,300		54.58%	102,608.03		5.79%	5,614.33
Medina	830,631,900		8.08%	15,183.24		9.85%	1,361.33
Plymouth	631,150,100		6.14%	11,536.89		6.08%	661.37
Rogers	1,081,067,600		10.51%	19,760.99		2.05%	396.25
Totals	**10,284,943,500**		**100.00%**	**188,000.00**		4.44%	**8,000.00**
2012	**2011 Taxable Market Value**		**2012 Budget Share**			**Increase over Prev Year**	
			%age	**Dollars**		**%age**	**Dollars**
Champlin	486,223,700		4.82%	9,311.12		4.24%	378.36
Corcoran	702,744,800		6.97%	13,457.47		4.46%	574.52
Dayton	524,379,400		5.20%	10,041.80		3.86%	373.54
Hassan	401,007,300		3.98%	7,679.24		3.40%	252.36
Maple Grove	5,490,107,700		54.47%	105,134.84		2.46%	2,526.82
Medina	773,549,700		7.68%	14,813.38		-2.44%	-369.87
Plymouth	630,559,900		6.26%	12,075.14		4.67%	538.25
Rogers	1,069,825,600		10.62%	20,487.02		3.67%	726.03
Totals	**10,078,398,100**		**100.00%**	**193,000.00**		2.66%	**5,000.00**

ELM CREEK WATERSHED
MANAGEMENT COMMISSION

Annual Financial Report
Year Ended
December 31, 2012

ELM CREEK WATERSHED MANAGEMENT COMMISSION

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JOHNSON & COMPANY, Ltd. Certified Public Accountants

MEMBER
American Institute of Certified Public Accountants
Minnesota Society of Certified Public Accountants
Private Companies Practice Section of
American Institute of Certified Public Accountants

Thomas J. Opitz, CPA, CVA
Bridget K. McKelvey, CPA, MBT, CVA
Thomas D. Johnson, CPA
Thomas A. Barber, CPA
Dwaine C. Johnson, CPA
Lisa M. Roden, CPA, MST
Brad R. Cohrs, CPA
Robert Van Winkle, CPA

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, 2012, 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 opinions 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 and the standards applicable to financial audits contained in *Governmental Auditing Standards*, issued by the Comptroller General of the United States. 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 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 entity'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.

Opinions

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, 2012, and 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

The prior year partial comparative information has been derived from the Commission's financial statements for the year ended December 31, 2011 and, in our report dated April 2, 2012, 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, 2011, from which such information was derived.

J&Co.

3255 FERNBROOK LANE N., MINNEAPOLIS, MN 55447 (952) 525-9500 FAX (952) 525-0301

The Management's Discussion and Analysis is not a required part of the basic financial statements, but is supplementary information required by accounting principles generally accepted in the United States of America. The Commission has not presented the MD&A that is necessary to supplement, although not be a part of, the basic financial statements.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards,* we have also issued our report dated April 13, 2013, 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. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Commission's internal control over financial reporting and compliance.

Johnson & Company, Ltd.

April 13, 2013

BASIC FINANCIAL STATEMENTS

Elm Creek Watershed Management Commission

Statement of Net Position and
Governmental Fund Balance Sheet
As of December 31, 2012
(with Comparative Actual Amounts as of December 31, 2011)

	Governmental Activities	
	2012	2011
Assets		
Investments	$ 355,834	$ 386,084
Prepaid expenses	60	-
Accounts receivable	18,154	7,028
Total assets	$ 374,048	$ 393,112
Liabilities and Fund Balances/Net Position		
Liabilities		
Accounts payable	$ 26,581	$ 24,620
Fund balances/net position		
Restricted fund balances/net position		
Restricted for guarantee payments	27,098	29,885
Assigned fund balances/net position		
Assigned for capital improvement projects	55,000	-
Assigned for third generation plan	35,000	-
Unrestricted/unassigned fund balances/net position	230,369	338,607
Total assigned or unrestricted fund balances/net position	320,369	338,607
Total fund balances/net position	347,467	368,492
Total liabilities and fund balances/net position	$ 374,048	$ 393,112

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, 2012
(with Comparative Actual Amounts for the Year Ended December 31, 2011)

	Governmental Activities			
	2012			2011
	Original and Final Budget	(Audited)	Over (Under)	(Audited)
Program/project expenditures/expenses				
General government				
Invertebrate monitoring	$ 6,000	$ 6,000	$ -	$ 6,000
Lakes monitoring	5,200	4,880	(320)	4,500
Stream monitoring	18,288	18,875	587	17,680
Rain gauge	170	156	(14)	137
Rain network	100	-	(100)	-
Wetland monitoring	4,000	4,000	-	4,000
Project reviews	77,000	71,124	(5,876)	54,762
Watershed-wide TMDL	90,000	43,720	(46,280)	67,874
Watershed-wide TMDL - administrative	5,000	8,984	3,984	-
Second generation plan amendment	26,000	9,823	(16,177)	5,781
Capital improvement projects	25,000	-	(25,000)	-
Stream health evaluation	6,000	6,000	-	6,000
WCA - administration	3,000	3,680	680	1,613
WCA - legal	500	-	(500)	-
WCA - technical services	6,500	6,500	-	2,000
Total program/project expenditures/expenses	272,758	183,742	(89,016)	170,347
Program/project revenues				
General government				
Membership dues	193,000	193,000	-	188,000
WCA administration fees	2,500	850	(1,650)	1,900
WCA reimburse surety	-	-	-	3,600
Project reviews	50,000	33,910	(16,090)	38,850
Water monitoring - lakes and streams	5,500	4,439	(1,061)	4,263
Watershed-wide TMDL	70,000	43,720	(26,280)	61,185
Total program/project revenues	321,000	275,919	(45,081)	297,798
Net program/project revenues	48,242	92,177	43,935	127,451
General expenditures/expenses				
Administration	79,500	93,365	13,865	82,220
Insurance	4,000	2,727	(1,273)	2,874
Legal and audit services	6,500	4,633	(1,867)	5,677
Web site	7,000	1,852	(5,148)	3,347
Education and training	14,000	7,910	(6,090)	15,246
Contingency	3,600	-	(3,600)	-
Miscellaneous	1,000	-	(1,000)	48
Total general expenditures/expenses	115,600	110,487	(5,113)	109,412
General revenues				
Interest and dividend income	300	72	(228)	70
Net general revenues (expenditures/expenses)	(115,300)	(110,415)	4,885	(109,342)
Change in net position	$ (67,058)	(18,238)	$ 48,820	18,109
Fund balances/net position - assigned or unrestricted				
Beginning of year		338,607		320,498
End of year		$ 320,369		$ 338,607

See notes to basic financial statements

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.

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.

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 coverage's. 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, 2012.

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, 2012 and 2011.

Net position

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

Change in Accounting Principle

For the year ended December 31, 2011, the Commission has implemented GASB Statement No. 54, "Fund Balance Reporting and Governmental Fund Type Definitions." The objective of this statement is to enhance the usefulness of fund balance information by providing clearer fund balance classifications that can be more consistently applied and by clarifying the existing governmental fund type definitions. This statement establishes fund balance classifications that comprise a hierarchy based primarily on the extent to which a government is bound to observe constraints imposed upon the use of the resources reported in governmental funds. The Commission is implementing this standard retroactively, meaning prior year fund balance classifications have been restated. More information on these fund balance classifications is included elsewhere in these notes.

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, 2011, from which the summarized information was derived. Also, certain amounts presented in the prior year data have been reclassified in order to be consistent with the current year's presentation.

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, 2012 and 2011, the Commission held $355,834 and $386,084 (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.

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.

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.

Restricted fund balance is comprised of the following:

The Monitoring Guarantee Restricted Funds are for wetland mitigation projects. The initial monitoring fee is set by the commission per project and is to be reduced over a five year period provided the project meets the requirements of the mitigation.

The Financial Guarantee Restricted Funds are received as a guarantee that the mitigation will perform as required. Upon completion, and if the project meets the qualified plan requirements, these financial guarantees are refunded.

The Administrative Guarantee Restricted Funds are received as a guarantee that the project administration fees are paid. The restricted amount is reduced as project-related administrative expenses arise. Any residual funds not used are refunded upon completion of the project.

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 three times to add additional funds of $148,000 for phase II, $100,000 for phase III and $109,995 for phase IV. The Commission earned $43,720 and $61,185, during the years ended December 31, 2012 and 2011, respectively.

NOTE 5 – MEMBERS' DUES

Dues received from members were as follows:

	For Year Ended December 31			
	2012		2011	
	Amount	Percentage	Amount	Percentage
Champlin	$ 9,311	4.82 %	$ 8,933	4.75 %
Corcoran	13,458	6.97	12,883	6.85
Dayton	10,042	5.20	9,668	5.14
Hassan	7,679	3.98	7,427	3.95
Maple Grove	105,135	54.47	102,608	54.58
Medina	14,813	7.68	15,183	8.08
Plymouth	12,075	6.26	11,537	6.14
Rogers	20,487	10.62	19,761	10.51
Total	$193,000	100.00 %	$188,000	100.00 %

OTHER REQUIRED REPORTS

JOHNSON & COMPANY, Ltd. Certified Public Accountants

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Bridget K. McKelvey, CPA, MBT, CVA
Thomas D. Johnson, CPA
Thomas A. Barber, CPA

MEMBER
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Private Companies Practice Section of
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Dwaine C. Johnson, CPA
Lisa M. Roden, CPA, MST
Brad R. Cohrs, CPA
Robert Van Winkle, CPA

INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL

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 and standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, 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, 2012, 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 13, 2013.

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.

3255 FERNBROOK LANE N., MINNEAPOLIS, MN 55447 (952) 525-9500 FAX (952) 525-0301

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. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Johnson & Company, Ltd.

April 13, 2013

JOHNSON & COMPANY, Ltd. Certified Public Accountants

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INDEPENDENT AUDITORS' REPORT ON COMPLIANCE WITH MINNESOTA STATE LAWS AND REGULATIONS

Board of Directors
Elm Creek Watershed Management Commission
Plymouth, Minnesota

We have audited 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, 2012, which collectively comprise the Commission's basic financial statements, and have issued our report thereon April 13, 2013.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in Government Auditing Standards, issued by the Comptroller General of the United States; and the provisions of the *Minnesota Legal Compliance Audit Guide for Political Subdivisions* promulgated by the State Auditor pursuant to Minnesota Statute 6.65. Accordingly, the audit included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

The *Minnesota Legal Compliance Audit Guide for Political Subdivisions* covers six main categories of compliance to be tested: contracting and bidding, deposits and investments, conflicts of interest, public indebtedness, claims and disbursements, and miscellaneous provisions. Our study included all of the applicable categories.

The results of our tests indicate that for the items tested, the Commission complied with the material terms and conditions of applicable legal provisions.

This report is intended solely for the information and use of the Commission, its member cities, the state of Minnesota, and management of the Commission and is not intended to be, and should not be, used by anyone other than these specified parties.

Johnson & Company Ltd

April 13, 2013

3255 FERNBROOK LANE N., MINNEAPOLIS, MN 55447 (952) 525-9500 FAX (952) 525-0301

Elm Creek Watershed Management Commission - 2013 Operating Budget

	A	B	C	D	V	W	X	AA
1					2011 Approved Budget Revised	2011 Final	2012 Approved	2013 Approved
2	**GENERAL OPERATING BUDGET**							
3	**Expenses**							
4		Administrative			78,500	82,220	79,500	82,000
5			Watershed-wide TMDL Administration		2,000	6,689	5,000	7,000
6		Website			7,500	3,347	7,000	5,000
7		Legal Services			1,500	1,177	1,500	2,000
8		Audit			5,000	4,500	5,000	5,000
9		Insurance			4,000	2,874	4,000	3,500
10		Miscellaneous			1,000	48	1,000	1,000
11				***Subtotal***	***99,500***	***100,855***	***103,000***	***105,500***
13		Project Reviews						
14			Technical - HCES		63,000	47,600	65,000	67,000
15			Technical Support - Consultant		7,000	514	3,000	5,000
16			Admin Support		10,000	6,648	9,000	9,000
17				***Subtotal***	***80,000***	***54,762***	***77,000***	***81,000***
19		Wetland Conservation Act						
20			WCA Expense - HCES		9,250	2,000	6,500	6,700
21			WCA Expense - Legal		500		500	500
22			WCA Expense - Admin		3,000	1,613	3,000	3,000
23				***Subtotal***	***12,750***	***3,613***	***10,000***	***10,200***
25		Water Monitoring						
26			Stream Monitoring					
27				Stream Monitoring - USGS	17,500	17,680	18,288	19,700
28				Stream Monitoring - TRPD				
29				Macroinvertebrate Monitoring-River Watch	6,000	6,000	6,000	6,500
30			Gauging Station - Elec Bill		150	137	170	190
31			Rain Gauge Network		1,000	0	100	100
32			Lake Monitoring					
33				Lake Monitoring - CAMP	1,650	1,100	1,700	1,700
34				Lake Monitoring - TRPD	3,400	3,400	3,500	3,700
35			Wetland Monitoring - WHEP		4,000	4,000	4,000	4,000
36			Stream Health - SHEP		6,000	6,000	6,000	6,000
37				***Subtotal***	***39,700***	***38,317***	***39,758***	***41,890***
39		Education						
40			Education - City/Citizen Programs		4,500	8,494	6,500	5,500
41			2011 Workshop Series		3,000	3,000		
42			WMWA General Admin					3,000
43			WMWA Implementation Activities				3,000	3,000
45			R Garden Workshop/Intensive BMPs		2,500	2,000	2,500	3,000
46			Education Grants		2,000	1,752	2,000	3,000
47				***Subtotal***	***12,000***	***15,246***	***14,000***	***17,500***
53		Second Gen Plan Amendment			0	5,781		
54			Local Plan Review					
55				***Subtotal***	***0***	***5,781***	***0***	***0***
57		Special Projects						
58			CWLA Grant		0	0	0	0
59			Special Projects - General		5,000	0	5,000	2,000
60			BMP Implementation Program					3,000
61			South Metro Miss TMDL				500	500
62			Upper Miss Bacteria TMDL		100	0	500	500
63			CIPs/Studies/Project Identification		10,000		25,000	7,500
65				***Subtotal***	***15,100***	***0***	***31,000***	***13,500***
67		Contingency			3,600	0	3,600	3,000
68				***Subtotal***	***3,600***	***0***	***3,600***	***3,000***
69	***Total Op Exp (lines 11,17,23,37,47,55,65,68)***				***262,650***	***218,574***	***278,358***	***272,590***

Elm Creek Watershed Management Commission - 2013 Operating Budget

	A	B	C	D	V	W	X	AA
1					**2011 Approved Budget Revised**	**2011 Final**	**2012 Approved**	**2013 Approved**
71	**Revenue**							
72		Project Review Fees			35,000	38,850	50,000	50,000
73		Water Monitoring - TRPD Co-op Agmt			4,000	4,263	5,500	5,500
74		BMP Implementation			0	0	0	
75		WCA Fees			2,000	1,900	2,500	1,500
76		Forfeited/Reimbursed Sureties			0	3,600	0	0
77		Membership Dues			188,000	188,000	193,000	197,000
78		Interest Income			1,500	70	300	150
79		CWLA Grant			0	0	0	0
80		Miscellaneous Income			0		0	0
81		From (To) Cash Reserves						
82				***Total Operating Revenue (lines 71-81)***	***230,500***	***236,683***	***251,300***	***254,150***
83	**TOTAL GENERAL OP BUDGET (lines 69, 82)**				**32,150**	**18,109**	**27,058**	**18,440**
85	**CAPITAL PROJECTS BUDGET**							
86		**Revenue**						
87			CIPs - Ad Valorem Levy Funds		0	0	0	346,563
88		**Expense**						
89			Capital Projects - Commission Cost Share		0	0		346,563
90	**TOTAL CAPITAL PROJECTS (lines 85-89)**				***0***	***0***	***0***	***0***
92	**Encumbered Funds**							
93		Watershed-wide TMDL						
94			Watershed-wide TMDL - MPCA		77,000	61,185	70,000	17,958
95			Commission Contribution		-10,000		-20,000	-20,000
96				Less Encumbered Funds Expended		0		52,835
97			TRPD/Commission Co-op Agreement		-77,000	-61,185	-70,000	-60,000
100			***Total Watershed-wide TMDL (see line item description)***		***10,000***	***0***	***20,000***	***9,207***
101								
102		Third Generation Management Plan						
103			Member Assess - Contribution to Reserves				0	
104			Encumbered from General Fund		-15,000		-20,000	-15,000
105			Less Expenses					-40,000
106				***Total Third Gen Plan***	***15,000***	***0***	***20,000***	***55,000***
107								
108	**TOTAL ENCUMBERED FUNDS (lines 100, 106)**				**25,000**	**0**	**40,000**	**64,207**
110	**Escrowed Funds - WCA - Beginning Accumulated**					**39,962**	**29,885**	**29,885**
111		**WCA Activity - Current Year**				**10,077**		
112	**Escrowed Funds - WCA - Year-End Accumulated**					**29,885**	**29,885**	**29,885**
113								
114	**FUND BALANCE**							
115	**Fund Balance - Beginning of Year**					**360,460**	**368,492**	**301,434**
116		**Surplus (Deficit) To (From) Cash Reserves (lines 83, 90, 108)**				**18,109**	**67,058**	**82,647**
117		**Change in WCA Fund Balance**				**10,077**		
118	**Fund Balance - End of Year**					**368,492**	**301,434**	**218,787**
119								
120	**Encumbered Funds - Watershed TMDL (accum)**					**32,500**	**52,500**	**19,665**
121	**Encumbered Funds - Third Gen Plan (accum)**					**35,000**	**55,000**	**30,000**
122				***Total Encumbered Funds***		***67,500***	***107,500***	***49,665***
123								
124	**Total Unencumbered Fund Balance**					**300,992**	**193,934**	**169,122**
125		**Less WCA Escrows Held (line 112)**				**29,885**	**29,885**	**29,885**
126	**Unreserved/Unrestricted Funds**					**271,107**	**164,049**	**139,237**
127								

Elm Creek Watershed Management Commission
2013 Member Assessments

2011	2010 Taxable Market Value		2011 Budget Share			Increase over Prev Year	
			%age	Dollars		%age	Dollars
Champlin	488,685,600		4.75%	8,932.76		3.86%	332.21
Corcoran	704,789,600		6.85%	12,882.95		1.63%	206.10
Dayton	528,922,900		5.14%	9,668.26		3.33%	311.81
Hassan	406,303,500		3.95%	7,426.88		-10.63%	-883.40
Maple Grove	5,613,392,300		54.58%	102,608.03		5.79%	5,614.33
Medina	830,631,900		8.08%	15,183.24		9.85%	1,361.33
Plymouth	631,150,100		6.14%	11,536.89		6.08%	661.37
Rogers	1,081,067,600		10.51%	19,760.99		2.05%	396.25
Totals	**10,284,943,500**		**100.00%**	**188,000.00**		4.44%	**8,000.00**
2012	**2011 Taxable Market Value**		**2012 Budget Share**			**Increase over Prev Year**	
			%age	**Dollars**		**%age**	**Dollars**
Champlin	486,223,700		4.82%	9,311.12		4.24%	378.36
Corcoran	702,744,800		6.97%	13,457.47		4.46%	574.52
Dayton	524,379,400		5.20%	10,041.80		3.86%	373.54
Hassan	401,007,300		3.98%	7,679.24		3.40%	252.36
Maple Grove	5,490,107,700		54.47%	105,134.84		2.46%	2,526.82
Medina	773,549,700		7.68%	14,813.38		-2.44%	-369.87
Plymouth	630,559,900		6.26%	12,075.14		4.67%	538.25
Rogers	1,069,825,600		10.62%	20,487.02		3.67%	726.03
Totals	**10,078,398,100**		**100.00%**	**193,000.00**		2.66%	**5,000.00**
2013	**2012 Taxable Market Value**		**2013 Budget Share**			**Increase over Prev Year**	
			%age	**Dollars**		**%age**	**Dollars**
Champlin	470,663,700		4.79%	9,428.89		1.26%	118
Corcoran	660,310,883		6.71%	13,228.13		-1.70%	-229
Dayton	473,494,814		4.82%	9,485.61		-5.54%	-556
Maple Grove	5,519,948,200		56.13%	110,582.11		5.18%	5,447
Medina	737,512,500		7.50%	14,774.72		-0.26%	-39
Plymouth	644,559,600		6.55%	12,912.58		6.94%	837
Rogers	1,327,196,863		13.50%	26,587.97		29.78%	-1,578
Totals	**9,833,686,560**		**100.00%**	**197,000.00**		2.07%	**4,000.00**