Nine Mile Creek Watershed District
2013 Annual Report

Prepared and submitted by:
Nine Mile Creek Watershed District
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Table of Contents

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Term Expires: 9/29/14
Resident of Eden Prairie

Steve Kloiber, Vice-President
6528 Scandia Road
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Appointing County: Hennepin
Term Expires: 9/29/16
Resident of Edina

Maressia Twele
PO Box 4209
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Appointing County: Hennepin
Term Expires: 9/29/2015
Resident of Minnetonka

Geoffrey Nash, Treasurer
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Retired from Board in: September, 2013

Jodi Peterson - Secretary
9508 Russell Avenue South
Bloomington, MN 55431
(651) 334-3857
Appointing County: Hennepin
Term Expires: 9/29/2014
Resident of Bloomington

Louise Segreto - Manager
Appointing County: Hennepin
Term Expires: 09/29/16
Resident of Edina
Appointed in September 2013

Citizen Advisory Committee Members

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Jack Gleason	MN Department of Natural Resources Area Hydrologist	1200 Warner Road St. Paul, MN 55155
Chris Zadak	MN Pollution Control Agency	520 Lafayette Road St. Paul, MN 55155-4194
Nick Teideken	MN Department of Transportation	Metro District Water Resources Engineer 1500 W. County Rd B-2 Roseville, MN 55113
Brad Wozney	Board of Water & Soil Resources	520 Lafayette Road St. Paul, MN 55155

Employees and Consultants

The Nine Mile Creek Watershed District (District) employs two full-time employees. The District hired a full-time administrator in 2005. The administrator oversees daily operations of the District and represents the District on numerous state-wide committees. In 2009, the District hired a full-time education/outreach coordinator to develop and implement the District's education/outreach programs. The District retains the services of an engineering consultant, a legal advisor, and an accountant to assist with District activities. The District contracts with another accounting firm to perform its annual financial audit.

District Administrator:

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Introduction

Established in 1959, the Nine Mile Creek Watershed District was the state's first urban watershed district. Despite its name, Nine Mile Creek's main branch actually travels 15.5 miles from its headwaters to its confluence with the Minnesota River. The Creek's name came from the fact that it is nine (9) miles from Fort Snelling following an early cart path that is now Old Shakopee Road. The Creek winds though the southwestern suburbs of the Twin Cities, with a 50 square mile watershed consisting of a largely developed urban landscape, and encompassing portions of Bloomington, Edina, Minnetonka, Eden Prairie, Hopkins, and Richfield. Appointed by the Hennepin County Commissioners, each of the District's five Managers serve three-year terms.

Consistent with its statutory and regulatory obligations under Minn. Stat. § 103D.351 and Minnesota Rules § 8410.0150, the Board of Managers has prepared this Annual Report of the Nine Mile Creek Watershed District's financial status, its yearly activities and projects, its 2013 permitting and enforcement program, and its 2014 goals and objectives. The Managers invite comments and suggestions concerning this report. The 2013 Annual Report is available on the Nine Mile Creek Watershed District website – www.ninemilecreek.org. Copies are also available by contacting Kevin Bigalke, District Administrator, Nine Mile Creek Watershed District, 7710 Computer Avenue, Suite 135, Edina, MN 55435, (952) 835-2078.

Highlights and Accomplishments of 2013

2013 highlights include:

- Continued the volunteer Citizen-assisted Lake Monitoring Program (CAMP), working with the Metropolitan Council
- Continued with the implementation of the Anderson Lakes Curly Leaf Pondweed Management component of the Eden Prairie Lakes Water Quality Improvement Project
- Continued Implementation of the Hopkins Streambank Stabilization and Habitat Restoration Project
- Continued our BMP cost-share grant program
- Continued with design and planning activities for the Nine Mile Creek Water Resource Center located on the donated Kaerwer property in Eden Prairie
- Completion of the Hopkins Streambank Restoration Project

2013 was another very busy and successful year for the Nine Mile Creek Watershed District (District). The District initiated a review of the implementation plan outlined in its Water Management Plan adopted in 2007. The District hosted Road Winter Maintenance workshops in partnership with the Minnehaha Creek Watershed District, Mississippi Watershed Management Organization, Riley-Purgatory-Bluff Creek Watershed District, and Carver County for the Minnesota Department of Transportation and Hennepin County plow drivers. The District also held workshops for the six cities in the Nine Mile Creek Watershed District. In recognition of its winter maintenance education program, the Nine Mile Creek Watershed District was a finalist for the Minnesota Association of Watershed District's Program of the Year

Award for the District's efforts working with school districts. In the months of June, July, and August, the District hosted its Summer Education Series.

The District continued with the design and planning for the Nine Mile Creek Water Resource Center to be located on the Kaerwer property donated to the District.

The District continued to implement the Nine Mile Creek Stabilization and Habitat Improvement project located in Hopkins.

Assessment of the 2013 Work Plan

In its 2012 Report, the District identified several broad goals and objectives for 2013, including:

1. Implementation of District Regulatory Program and Rules
2. Implementation of Plan Review
3. Nine Mile Creek Water Resource Center Planning
4. Continue UAA/Lake/Creek Studies
5. Cost-Share Grant Program
6. Citizen Assisted Lake Monitoring Programs (CAMP)
7. Citizen Advisory Committee
8. Technical Advisory Committee
9. Education and Outreach Activities
10. Capital Project Implementation

In 2013, the District completed or made substantial progress toward all of these goals and objectives, as described below. In addition to the project and activities identified above, the Nine Mile Creek Watershed District began a study to look at the opportunities for a storm water volume reduction project in partnership with the City of Edina. The project will occur in the City of Edina's Centennial Lakes Promenade area.

1. ***Continued Implementation of Watershed District Rules & Permit Program***

In March 2008, the Nine Mile Creek Watershed adopted new District rules. The rules have been well received and the District has not had any significant issues implementing the

rules. In 2013, the NMCWD continued to review projects and permit applications under the rules adopted in 2008. The NMCWD reviewed and approved 90 permit applications in 2013.

*2. **Implementation Plan Review***

In 2013, the District continued a review of the implementation plan of its Water Management Plan. Staff identified programs that could be combined and a few new programs or projects that should be included in the implementation plan. The District will amend the implementation plan in 2014.

*3. **Nine Mile Creek Water Resource Center Planning***

The District Board and staff conducted a vision process to identify potential programs and other uses for the donated property. The District continued to work with the architect design firm LHB to design the renovation of the existing home to become the Nine Mile Creek Water Resource Center. The District also continued to refine the Interpretive Framework developed by Jim Rowe to further identify the education and outreach uses of the Water Resource Center. The District plans to break ground on the Water Resource Center in 2014.

*4. **Use Attainability Analyses & Lake and Creek studies***

In 2013, the District entered the tenth year of its Watershed Outlet Monitoring Program. In conjunction with this monitoring, the District continued to work with the MPCA to determine the appropriate standards for assessing and classifying the creek's impairment, and to identify best practices for improving the water quality in the creek and achieving "unimpaired" status. Since 2004, the Nine Mile Creek has been on the Minnesota Pollution Control Agency's

"Impaired Water" lists for turbidity, chloride and fish community Index of Biotic Integrity (IBI). In response to this listing, the District undertook an enhanced monitoring program, which includes additional water quality monitoring at three Watershed Outlet Monitoring Program (WOMP) stations on the creek, and ecological health monitoring of the Creek. The District began working with the MPCA in 2007 to get funding for TMDL studies for chlorides and fish IBI. The District initiated the TMDL studies for chlorides and fish IBI in 2008 and continued to develop the TMDL Reports for these impairments in 2009. In 2010, the Chloride TMDL Report was approved by the MPCA and the Environmental Protection Agency. The District continued the development of an Implementation Plan and continued its implementation and education efforts to reduce chlorides in 2013. The District is working with the Minnesota Pollution Control Agency on the possible reclassification or delisting of the fish IBI impairment.

The District continued to partner with the Metropolitan Council to monitor continuous turbidity at the Metropolitan Council WOMP station. Continuous turbidity monitoring began at this station in 2008 and continued in 2013.

*5. **2013 Cost Share Grant Program***

In 2013, the District solicited applications and awarded 21 cost share grants totaling $122,321. The Cost Share Grant Program has been highly successful, with 2013 seeing the largest number of grants awarded in the program's six year history. The Cost Share Program has continued to see a good mix of application types, including residential, townhome and condominium association, and nonprofit, city and business projects. Raingardens and shoreline restorations continue to be popular project types. The District firmly believes that the Cost Share

Grant Program provides education and awareness of the District's goals and is an effective way to get projects on the ground.

6. ***Citizen-Assisted Lake Monitoring Program (CAMP)***

The District again partnered with the Metropolitan Council in 2013 to support the Citizen-Assisted Lake Monitoring Program on six lakes in the District. The lakes included in the citizen monitoring program were: Minnetoga Lake & Wing Lake in Minnetonka, Lower Penn Lake & Bush Lake in Bloomington, Lake Cornelia in Edina, and Lake Smetana in Eden Prairie.

7. ***Citizen Advisory Committee***

In 2013 the CAC assisted staff on developing new education and outreach opportunities as well as ways to improve our current programs. Staff worked with the CAC to organize and host the 6th Annual Summer Education Series. See the section on the Summer Education Series for details.

8. ***Technical Advisory Committee***

In 2013, the District's Technical Advisory Committee did not meet.

9. ***Education and Outreach Program Activities***

Electronic Newsletter

The District began emailing a quarterly newsletter in 2013, in an effort to keep citizens and other watershed constituents better informed about District projects and events, along with highlighting the natural resources of the District and providing clean water tips. The number of

people subscribed to the newsletter rose to over 200 in 2013. The average open rate for the newsletter was approximately 50%, which is well above the industry average of 18.1%.

Educational Material Development

Several new educational materials were developed in 2013. The District created two new brochures (Choosing a Deicer and Hiring a Snow Removal Service) in an effort to promote chloride reduction. In addition, two banner displays were created for use at community outreach events. One was on the impacts of salt on the environment and another on the role of the District in protecting our natural resources.

Faith-Based Outreach

In 2013, the District embarked in a partnership with Alliance for Sustainability (AFS), a local nonprofit organization, to enhance and improve our outreach to faith-based organizations. AFS, in cooperation with the District, held two *Greening Your Congregation* events, where congregations could learn about water and energy conservation and techniques to reduce impacts from stormwater runoff. The two workshops were highly successful and led to a number of positive outcomes, including several churches that applied or began planning to apply for a Cost Share grant and the attendance of several church representatives at the District's chloride reduction trainings.

Summer Education Series

The District hosted its seventh year of the Summer Education Series (SES). The SES is designed to encourage adults and children to get outside to explore and experience the natural resources in the District, in addition to providing District residents with hands-on learning opportunities about the resources of the District, and about ways to protect and enhance the District's water and natural resources. In 2013, the SES included a spring nature hike led by a

local naturalist, a highly successful family fishing program led by the DNR's MinnAqua program, a class on nature photography, and a geocaching class led by Three Rivers Park District.

NEMO (Nonpoint Education for Municipal Officicals)

The District continued to be a charter member of Northland NEMO in 2013, and District staff continued to participate on the NEMO steering committee.. NEMO presented a workshop to the Minnetonka Planning Commission in 2013.

Trainings/Workshops

The District hosted one Winter Road Maintenance workshops targeted at public road authorities in 2013. We provided training for MNDOT, Hennepin County, and city plow drivers. The Winter Road Maintenance workshops address approaches that will result in reduced chloride loading to Nine Mile Creek. The District also hosted two Winter Parking Lot and Sidewalk Maintenance workshop. The workshops targeted commercial snow removal businesses, school districts, and park maintenance staff. The District also created a three-hour workshop titled *Winter Maintenance on School Grounds* as a step to address the chloride load from the commercial and private sector. The workshop was developed through an innovative partnership between the Nine Mile Creek Watershed District, Bloomington Public Schools and SFM, a workers compensation insurance company. The workshop identified and addressed not only the environmental concerns of winter maintenance, but also the public safety side of winter maintenance. It drew on Bloomington Public Schools' experience in implementing chloride reduction strategies, SFM's experience in public safety, and Nine Mile Creek's environmental knowledge to present a workshop that left attendees with the knowledge to move forward with implementing winter maintenance BMPS, while protecting the safety of students and staff on

school grounds. The workshop was presented two times, with school districts from across the state attending. In addition to the three hour workshop, a shortened version was presented at the Twin Cities' chapter of the Minnesota Educational Facilities Management Professionals' monthly meeting.

In addition, the District hosted a Turf Maintenance with Reduced Environmental Impacts workshop that targeted city staff, city park departments, and private contractors.

Blue Thumb Program Participation

In 2013, the Nine Mile Creek Watershed District continued to be partner of the Blue Thumb Program developed by the Rice Creek Watershed District. To be a partner, the District committed to 30 hours of public education and outreach activities pertaining to Blue Thumb Program goals. The District contributed over 40 hours toward the Blue Thumb Program through the District's education and outreach programs.

Environmental/Community Fairs

In 2013, the Nine Mile Creek Watershed District staff and managers attended and participated in Environmental Fairs hosted by the Cities of Eden Prairie, Minnetonka, Edina and Bloomington, CIGNA, and the Donaldson Company. The District had its display at the fairs and distributed information about the District, our water quality monitoring efforts, the new District rules, and the District's cost share grant program. The fairs provided an opportunity for the District to meet with residents of the District and discuss their concerns about the water quality and overall health of the Watershed.

Presentations to other organizations

As part of its education and outreach program in 2013, District staff gave presentations to interested groups and organizations. Presentations topics included the District's efforts to

improve and protect the water resources of the Nine Mile Creek Watershed and alternative landscaping options to protect water quality. Presentations were also given to students at Edina and Minnetonka schools.

2013 Annual Communication and Photo Calendar

In 2012, the Nine Mile Creek Watershed District held its sixth photo contest to collect photos for the 2013 Calendar. The 2013 Calendar served as the District's Annual Communication. Calendars were distributed throughout the District and made available at the city halls of each of the six cities in the District, public libraries, coffee shops, and were also mailed to residents upon request. 3,000 calendars were printed and distributed.

10. Capital Project Implementation

Continued Implementation of the Eden Prairie Lakes Water Quality Improvement Project

The City of Eden Prairie petitioned the District for the Eden Prairie Lakes Water Quality Improvement Project. The purpose of the project is to address Curly leaf Pondweed and internal phosphorus loading in Northwest and Southwest Anderson Lakes, to improve water quality and restore the water level in Birch Island Lake, and to address phosphorus loading in Bryant Lake. The District Board of Managers ordered the project at a public hearing on December 13, 2006. The Nine Mile Creek Watershed District Board of Managers ordered the project to commence in September 2007.

Implementation of the project was officially started in December 2007. Most of the Eden Prairie Lakes Water Quality Improvement Project was implemented in 2008. The project included a tile system to restore the water level of Birch Island Lake, and alum treatment on

Bryant Lake, and a drawdown of Northwest and Southwest Anderson Lakes to treat Curly Leaf Pondweed.

The water levels on Northwest and Southwest Anderson Lake were fully recovered throughout 2013. Localized herbicide treatment for Curly Leaf Pondweed was continued to treat areas of the lakes that could not be completely drawn down. The District and Three Rivers Park District monitored the vegetation in lakes in 2013. Vegetation monitoring was done to determine the presence or absence of curly leaf pondweed. Monitoring activities in 2013 continued to show a dramatic reduction of Curly Leaf Pondweed in Northwest and Southwest Anderson Lakes. Along with the reduction of Curly Leaf Pondweed was an increase in the abundance of native aquatic plants. Monitoring results showed the presence of 34 native aquatic plant species in Northwest Anderson Lake. Water quality improved in Northwest Anderson Lake, while water quality monitoring showed a decrease in water quality in Southwest Anderson Lake. The decline of water quality in Southwest Anderson Lake is attributed to the shallow nature of the lake, the rich organic nature of the lake substrate and the lack of aquatic vegetation. It is anticipated that water quality will improve as aquatic vegetation re-establishes and water level continue to return to pre-drawdown levels.

Implementation of the Hopkins Streambank and Habitat Restoration Project

In 2013, the District completed Phase B of the Hopkins Streambank and Habitat Restoration Project that the City of Hopkins petitioned the District in 2006. The project included the stabilization of segments of Nine Mile Creek and the construction of a new channel adding sinuosity and increased habitat to Nine Mile Creek. The project also included the construction of the Nine Mile Creek Regional Trail in partnership with Three Rivers Park District.

The District received a grant the Board of Water and Soil Resources and from Hennepin County to assist with the implementation of the stream and habitat restoration components of the project. The two grants totaled $261,000.

Construction of Phase A of the project commenced in the winter of 2011 and was completed in the early 2012. The District and the City of Hopkins received two grants from the Hennepin County Environmental Resource Fund to assist with the monitoring and remediation of the contamination. The District and the City of Hopkins received a $60,000 grant from the Hennepin County Environmental Resource Fund to assist with the Phase II Environmental Assessment. The District also received a $304,000 grant from Hennepin County Environmental Resource Fund to assist with the remediation of the contamination.

Southeast Anderson Lake Water Quality Improvement Project

In March 2008, the City of Bloomington petitioned the District for a water quality improvement project on Southeast Anderson Lake. The project is to address curly leaf pondweed and internal phosphorus loading. In 2008, the project was designed and ordered to proceed. The project design was to treat curly leaf pondweed with Endothal-K for 4-5 successive years. Treatments were continued in May 2009, 2010, 2011, and 2012. The project continued in 2013 with a sixth year of treatment of Endothal-K. Water quality and vegetation monitoring continued in 2013. Monitoring activities in 2013 showed a decrease in the abundance and density of Curly Leaf Pondweed, as well as increased diversity of native aquatic plants and improved water quality

Normandale Lake Water Quality Improvement Project

The District accepted a petition from the City of Bloomington to develop a water quality improvement project to address curly leaf pondweed and internal phosphorus loading in Normandale Lake and to identify watershed best management practices to reduce nutrient loading into the lake. The District started the feasibility/engineers report in 2009 and submitted options for the project to the U.S. Army Corps of Engineers for their preliminary review. Water quality monitoring in 2009 revealed an improvement in water quality. The District delayed implementation of the project to conduct addition water quality monitoring in 2010 and 2011. The District continued to work on the engineers report for the Normandale Lake project in 2013.

Edina Creek Restoration Project and Nine Mile Creek Regional Trail

The District continued to work throughout 2013 on the Edina Creek Restoration Project Engineer's Report. The District continued field assessments of the condition of Nine Mile Creek through Edina. The District began working on the Engineer's Report for the project.

11. Centennial Lakes Storm Water Volume Reduction Project Study

In May, 2013, the City of Edina requested the assistance of the Nine Mile Creek Watershed District to evaluate a potential storm water volume reduction project in the City's Centennial Lakes Promenade area. The NMCWD and the City of Edina entered into a partnership to complete a study to determine the feasibility of incorporating storm water volume reduction into the City's Promenade project. The NMCWD and the City of Edina used NMCWD's engineering consultant, Barr Engineering, to conduct a feasibility study to determine the potential for storm water volume reduction in the Promenade and Centennial Lakes area.

The study was completed in October, 2013 and evaluated various volume reduction strategies, the potential volume reduction of each strategy, and the potential cost of each practice. The NMCWD and the City of Edina agreed the potential for significant storm water volume reduction was feasible and the two parties entered into a cooperative agreement to begin design work on the project. Work will continue in 2014. The District consider funding the as a cost-share project with the City of Edina.

Projected 2014 Work Plan

Continue Implementation of Watershed District Regulatory Program and Rules

The District will continue implementing its rules and regulatory program in 2014.

Implementation Plan Review and Amendment

The District will finalize its review of the activities implemented to date and the future projects and activities identified in the Implementation Plan of the District's 2007 Water Management Plan. The District will evaluate the effectiveness and success of the projects completed. The District will determine if the future projects and activities identified in the District's Implementation Plan are still relevant and still a priority. An amendment to the Implementation Plan will be initiated to include future projects not anticipated in 2007,to consolidate similar programs identified in the 2007 Implementation Plan and to expand the cost-share grant program.

Nine Mile Creek Water Resource Center Planning

In 2009, the District was contacted by an individual interested in donating her home and 5.3 acre property adjacent to the Cardinal Creek Conservation Area and wetland complex to the District for use as the District office and Nine Mile Creek Water Resource Center. The District received approval for the project in 2010 from the City of Eden Prairie. In early 2011, the District closed on the property. The District conducted a visioning and planning process for the future use of the property as the Nine Mile Creek Water Resource Center in 2011 and 2012. In 2012, the District hired LHB to provide architectural for the renovations needed to convert the home into the District's office and Nine Mile Creek Water Resource Center. The District also hired Jim Rowe to develop an Interpretive Framework for the education, outreach, and interpretive opportunities at the new facility.

In 2014, the District will finalize the architectural design for the Water Resource Center and a landscape restoration plan for the property. The District plans to begin renovations to the existing building in 2014.

Continue UAA /Lake /Creek Studies

In 2014, the District will continue to monitor Nine Mile Creek with the WOMP stations. The District will continue use of the continuous turbidity monitoring transducers at each of its WOMP stations. The District will also continue its lake monitoring program, collecting data on Northwest Anderson Lake, Southwest Anderson Lake, Southeast Anderson Lake, and Lake Cornelia.

The District will also continue its stream monitoring program collecting water quality data and ecological data.

Cost Share Grant Program

The District will solicit applications for the seventh year of its Cost Share Grant Program in 2014. The District will also conduct an analysis of the past six years of projects to determine the success and effectiveness of the program. The District makes over $100,000 available to residents, businesses, and local governments in the District for this grant program.

Citizen Assisted Lake Monitoring Program (CAMP)

In 2014, the District will continue to support citizen monitoring through the Metropolitan Council's Citizen Assisted lake Monitoring Program (CAMP). Trained volunteer monitoring teams will collect water quality samples from Lower Penn Lake and Bush Lake in Bloomington, Lake Minnetoga and Wing Lake in Minnetonka, and Lake Cornelia in Edina.

Continued Support of CAC

The Nine Mile Creek Watershed District has had an active Citizen Advisory Committee (CAC). The District worked with the CAC in 2007 to develop a CAC work plan that will continue to guide its activities in 2014. The CAC will assist with numerous education and outreach events including the Summer Education Series, seminars, and workshops. In addition, the District will begin planning a process for the CAC to assist in reviewing Cost Share Grant applications and providing funding recommendations to the Board for the 2015 grant cycle.

Technical Advisory Committee

The District will continue working with the Technical Advisory Committee to begin the development of the chloride TMDL implementation plan.

Education and Outreach Activities

In 2014, the District will continue to partner with organizations to host clean-ups and to participate in local community and environmental fairs. In 2014, the District will participate in the Bloomington Home Improvement Fair, the City of Minnetonka's Native Plant Market, CIGNA's environmental fair, and many other local events. The District will once again partner with the Alliance for Sustainability in an effort to build on the momentum from 2013 and the work that was accomplished in connecting faith-based organizations with District resources. In addition, the District will continue to seek opportunities to partner with local schools to implement storm drain marking projects and give presentations about the water resources and water quality in the Nine Mile Creek Watershed District.

The District will again collaborate with its CAC to host the Summer Education Series. The 2014 Summer Education Series will include a canoeing event at Bryant Lake in Eden Prairie, two family fishing events (one at Bush Lake in Bloomington and one at Shady Oak Lake in Minnetonka), and a native seed collection workshop at Lone Lake Park in Minnetonka.

The District will be hosting Winter Maintenance workshops targeted at snow plow drivers and private parking lot snow removal companies aimed at reducing the amount of road salt applied in the District. This is to address the chloride TMDL. The District will work with the cities in the District to implement an education program on winter maintenance for the

general public. The District will continue to implement a chloride reduction workshop targeting School Districts in 2014.

The electronic newsletter will be sent out quarterly, along with other occasional updates from the District. There will be a concentrated effort to grow the number of subscribers to the mailing list and to provide information that is useful and of interest to those reading the newsletter.

The District will continue to incorporate more educational aspects into the Basic Water Management Projects. These efforts will include public information meetings, informational flyer or brochures and signage of new project sites describing project goals and activities.

District Website

In 2014, the District will continue to utilize its website for public information, education and outreach. The District plans to add its water quality data and lake fact sheets to the website. The District will also post project reports, updates, and project photos on the District website. The District plans to begin work to redo its website in 2014 in an effort to keep up with changing technology, add features, and to provide better information that is easier to access.

Blue Thumb

In December 2008, the District became a Blue Thumb program partner. In 2014, the District will continue to work with the Blue Thumb program to provide education and outreach programs to the citizens of the Nine Mile Creek Watershed District. Many of the programs described above are being used as Blue Thumb education programs.

NEMO (Nonpoint Education for Municipal Officials)

The Nine Mile Creek Watershed District is a charter sponsor for the NEMO program. In 2014, the District will offer an extensive suite of workshops for elected and appointed city officials and other community leaders. The four workshops being offered in 2014 include: NEMO 101 (offered twice), NEMO on the Water, and Lessons Across the Landscape. Workshops will focus on the links between land use and water quality, how to address water quality in project planning, and water quantity challenges during redevelopment.

Cost Share Grant Program

The District will solicit applications for the seventh year of its Cost Share Grant Program in 2014. The District will also conduct an analysis of the past six years of projects to determine the success and effectiveness of the program. The District makes over $100,000 available to residents, businesses, and local governments in the District for this grant program.

Citizen Assisted Lake Monitoring Program (CAMP)

In 2014, the District will continue to support citizen monitoring through the Metropolitan Council's Citizen Assisted lake Monitoring Program (CAMP). Trained volunteer monitoring teams will collect water quality samples from Lower Penn Lake and Bush Lake in Bloomington, Lake Minnetoga and Wing Lake in Minnetonka, and Lake Cornelia in Edina.

Continued Support of CAC

The Nine Mile Creek Watershed District has had an active Citizen Advisory Committee (CAC). The District worked with the CAC in 2007 to develop a CAC work plan that will

continue to guide its activities in 2014. The CAC will assist with numerous education and outreach events including the Summer Education Series, seminars, and workshops. In addition, the District will begin planning a process for the CAC to assist in reviewing Cost Share Grant applications and providing funding recommendations to the Board for the 2015 grant cycle.

Centennial Lakes Storm Water Volume Reduction Project

In 2013, the NMCWD and the City of Edina jointly conducted a study on the feasibility of incorporating storm water volume reduction and water quality treatment into the City's Promenade project. The NMCWD and City of Edina will began design work for the project in 2013. Project planning and design will be finalized in 2014 with construction anticipated to begin in the summer of 2014. The City of Edina is the project lead and the NMCWD will be funding the project as a cost-share project.

Capital Project Implementation

Continued Implementation of the Eden Prairie Lakes Water Quality Improvement Project

Substantial progress on the Eden Prairie Lakes Water Quality Improvement Project was made in 2008 – 2012. In 2014, the District will assess the plant community and determine if another year of endothal-K treatment is required in Northwest and Southwest Anderson Lakes.

Normandale Lake Water Quality Improvement Project

The District accepted a petition from the City of Bloomington to develop a water quality improvement project to address curly leaf pondweed and internal phosphorus loading in Normandale Lake and to identify watershed best management practices to reduce nutrient

loading into the lake. In 2009, water quality monitoring results indicated an improvement in water quality. The District will continue to work with the City of Bloomington to determine the best approach to deal with the curly leaf pondweed and water quality issues in 2014.

Southeast Anderson Lake Project

The District accepted a petition from the City of Bloomington for a water quality project on Southeast Anderson Lake in March 2008. In 2014, The District assess the abundance of curly leaf pondweed and determine if another treatment with Endothal-K is required. The District will also continue water quality and aquatic vegetation monitoring Southeast Anderson Lake to determine the effectiveness of the project.

Edina Creek Restoration Project

The District will finalize the Engineer's Report for the Edina Nine Mile Creek Restoration Project. The District will meet with City of Edina staff to present the proposed project. District staff will also host a series of neighborhood information meetings to present the proposed project to residents that live adjacent to Nine Mile Creek in proposed work areas. The District plans to order the project through and public hearing, bid the project, and begin implementation of the project in the winter of 2014.

Permitting Activity

Summary of Permits and Variances Issued

In 2008, the Nine Mile Creek Watershed District adopted and began implementing new rules. The Board of Managers, with the assistance from the District Engineer and District Administrator, reviews permit applications and imposes various conditions for approval as appropriate. In 2013, the District reviewed and granted 90 grading and land alteration permits. The District issued permits in the following cities: Bloomington – 33; Edina – 29; Eden Prairie – 8; Hopkins – 9; Minnetonka – 9.

The District subjects projects to a preliminary review so that it can issue permits simultaneously, or shortly after, municipal permits.

Enforcement Activity

The District's engineer regularly inspects permitted work to ensure compliance with permit conditions. If violations are found, the District attorney typically will notify permittees and seek voluntary abatement or correction before resorting to formal legal action. In 2013, no enforcement actions were necessary.

Summary of 2013 Water Quality Monitoring Programs

The 2013 Nine Mile Creek Watershed District water quality monitoring programs included monitoring Nine Mile Creek and five lakes (North Cornelia Lake, South Cornelia Lake, Southwest Anderson Lake, Southeast Anderson Lake, and Northwest Anderson Lake).

Nine Mile Creek Monitoring

Because the primary use of Nine Mile Creek is ecological – a place for fish and aquatic life to live – the focus of the Nine Mile Creek monitoring program is evaluation of the stream's fish and

aquatic life community as well as the ecosystem components essential for the survival of fish and aquatic life. The 2013 Nine Mile Creek monitoring program included (1) annual monitoring of the fish community during summer and (2) annual macroinvertebrate monitoring during October (3) annual habitat monitoring during summer (i.e., stream substrate type, depth of fine sediment, and percent embeddedness) and (4) March through October monthly measurements of specific conductance, dissolved oxygen, pH, temperature, turbidity, and flow.

Data collected during 2013 were evaluated to determine whether (1) specific conductance, dissolved oxygen, pH, temperature, and turbidity levels met MPCA standards and were consistent with historical values (2) 2013 fish and aquatic life communities were consistent with the stream's ecological use determined from assessments completed in 1997 and 2003, (3) the 2013 fish community met the MPCA Fish IBI standard for Nine Mile Creek, and (4) 2013 macroinvertebrate communities, assessed by biological indices, were consistent with historical data. Evaluation results follow.

2013 Nine Mile Creek specific conductance, dissolved oxygen, pH, temperature, and turbidity levels generally met MPCA criteria. Overall, 89 percent of 2013 values were within MPCA criteria. The Main Stem met MPCA criteria most frequently (95 percent) followed by the South Fork (91 percent) and North Fork (83 percent).

In 2013, the specific conductance criterion was met less frequently than other MPCA criteria. All temperature and pH measurements, 96 percent of dissolved oxygen measurements, 95 percent of turbidity measurements, and 53 percent of specific conductance measurements met MPCA criteria. As in previous years, the North Fork locations met the MPCA standard for specific conductance less frequently than other locations. Twenty two percent of North Fork

measurements met the MPCA specific conductance standard in 2013 compared with 71 percent of South Fork and 75 percent of Main Stem measurements. North Fork locations also met the turbidity standard less frequently than other locations. All Main Stem turbidity measurements met the MPCA standard compared with 96 percent of South Fork measurements and 91 percent of North Fork measurements. The South Fork met the dissolved oxygen standard less frequently than other locations. In 2013, all North Fork and Main Stem dissolved oxygen measurements met the MPCA standard compared with 88 percent of South Fork measurements.

Water quality data collected from Nine Mile Creek in 2013 indicate the stream's water quality generally remained stable and most values (96 percent) were within the range of historical values.

The 2013 fish data indicate Nine Mile Creek is currently supporting the ecological use determined from assessments completed during 1997 and 2003. Ecological use is a term used to describe the fish community that the stream has the capacity to support per the stream's flow, water quality, and habitat characteristics. The data further indicate the current fish community is similar to or better than the stream's average long-term fish community and that Nine Mile Creek has consistently attained the stream's attainable ecological use determined from 1997 and 2003 assessments. The data indicate the stream has generally remained stable and confirm that the ecological use designations for Nine Mile Creek are appropriate.

A positive change detected by the 2008 through 2013 fish data is a consistent improvement in the quality of the lower North Fork fish community. In 2008 this location noted a tolerant forage fish community. The community improved to an intolerant forage fish community during 2010 through 2012. In 2013, the community improved to a warmwater sport fish community. The

2013 community included a large number of sunfish, several crappie and perch, and a largemouth bass. Fish collected from Nine Mile Creek in 2013 were assessed to determine whether the stream met the MPCA biological standard. In Minnesota, biological impairment for fish in streams located within the Minnesota River Basin, including Nine Mile Creek, is defined as failing to meet the Minnesota River Assessment Project (MRAP) Index of Biotic Integrity (IBI) impairment threshold score of 30 or greater out of a possible score of 60. Only streams with a watershed area of at least 5 square miles are obligated to meet the IBI impairment threshold. In 2013 five of the seven Nine Mile Creek monitoring locations met the MPCA biological standard (Figure 1). Locations not meeting the MPCA biological standard include downstream South Fork location ECU-5A and Main Stem location ECU-7B. Previously, all Nine Mile Creek locations met the MPCA biological standard during 2006 and 2012 while some locations failed to meet the standard during 2003 through 2005 and during 2007 through 2011.Although the lower North Fork fish community improved in 2013, the lower North Fork invertebrate community worsened resulting in the poorest biological index (i.e., Hilsenhoff Biotic Index and Invertebrate Community Index) values since monitoring began. The 2013 Hilsenhoff Biotic Index (HBI)

Sedimentation from streambank erosion at Station ECU-2, pictured above, and from a construction project adjacent to Station ECU-2A, pictured below, is the most likely cause of the rapid decline in lower North Fork caddisflies during 2013.

values at ECU-2 and ECU-2A are significantly worse than most historical values. The change in 2013 HBI values is primarily due to a rapid decline in caddisflies. While the cause of the decline in caddisflies is unknown, candidate causes include higher chloride levels indicated by higher average specific conductance values in 2013, low flow conditions in late summer, sedimentation from streambank erosion at ECU-2 and from construction activity adjacent to ECU-2A, or predation by the fish community. Sedimentation is the most likely cause of the reduction in caddisflies since they are particularly sensitive to sedimentation impacts. Nonetheless, further investigation of the lower North Fork is recommended to determine the cause of reduction in caddisflies.

With the exception of lower North Fork locations, 2013 HBI and Invertebrate Community Index (ICI) values were similar to past values, indicating stream water quality, including oxygen levels, have generally remained stable.

The data indicate that despite urbanization impacts, water quality data collected from Nine Mile Creek during 1968 through 2013 have generally remained relatively stable over time, although fluctuations have been observed such as the improvement in the fish community and degradation of the macroinvertebrate community at the lower North Fork in 2013. Monitoring will continue at the annual monitoring stations to maintain this long-term record of water quality and biota in Nine Mile Creek and to assess the biological community to determine changes in stream habitat or water quality that warrant further investigation.

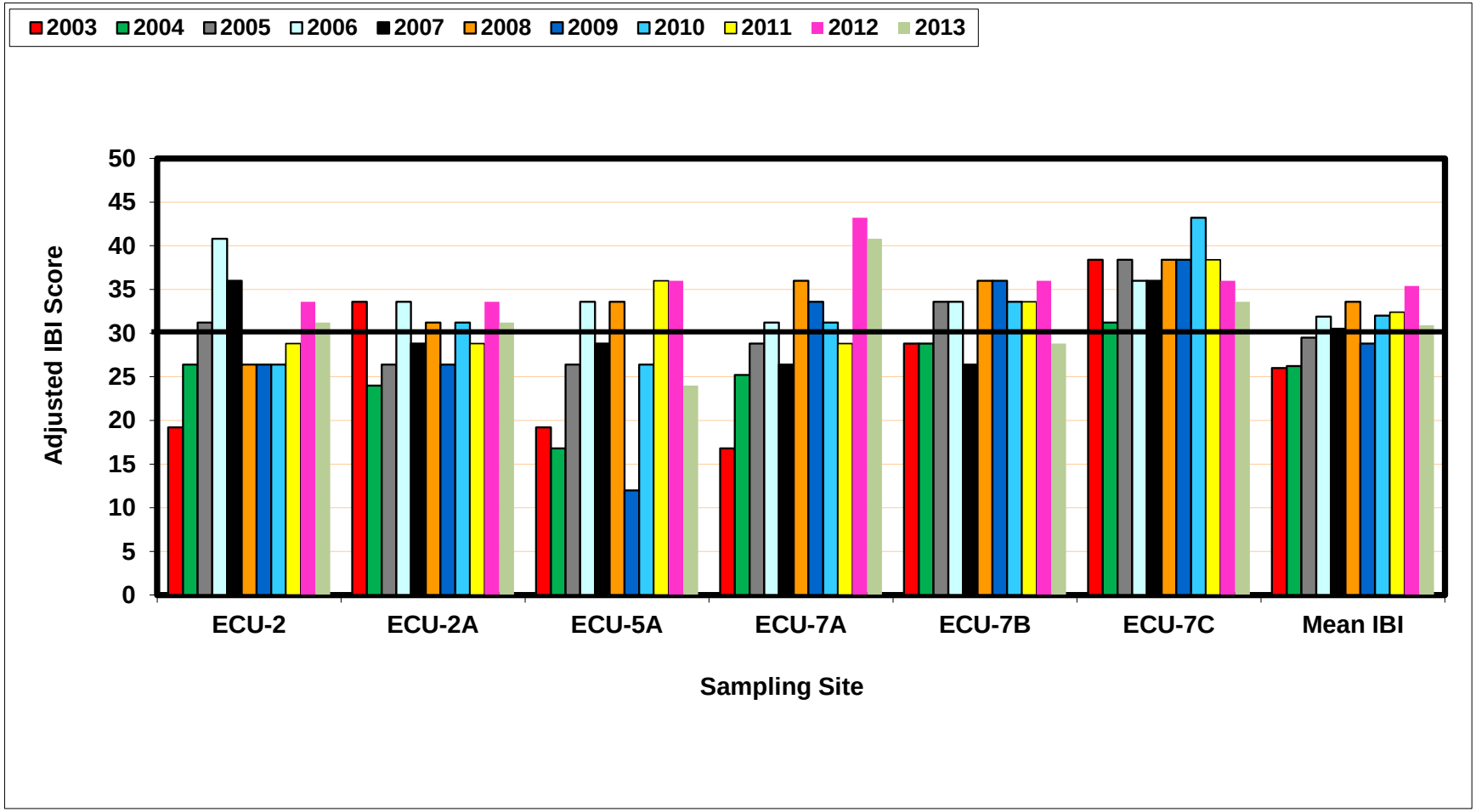


Figure 1 2003-2013 Nine Mile Creek Fish IBI Score

Nine Mile Lake Monitoring

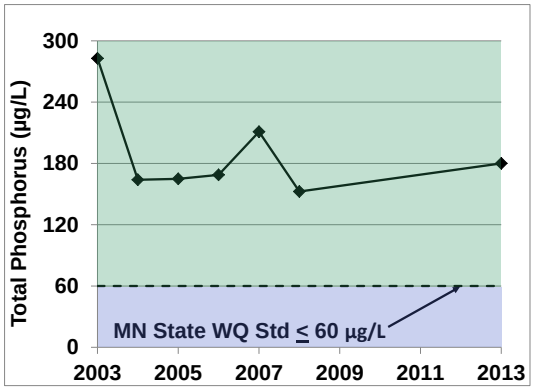
The 2013 Nine Mile lake water quality monitoring program included monitoring five lakes (North Cornelia Lake, South Cornelia Lake, Southwest Anderson Lake, Southeast Anderson Lake, and Northwest Anderson Lake). Each lake was monitored on six occasions for selected parameters including: total phosphorus, total dissolved phosphorus, soluble reactive phosphorus (ortho phosphorus), Total Kjeldahl nitrogen, nitrate plus nitrite nitrogen, pH, chlorophyll a, chloride, dissolved oxygen, temperature, specific conductance, turbidity, and oxidation reduction potential (ORP). Phytoplankton, and zooplankton samples were collected and analyzed. Aquatic plant (macrophyte) surveys were performed during June and August in North Cornelia Lake, South Cornelia Lake, Southeast Anderson Lake, and Northwest Anderson Lake.

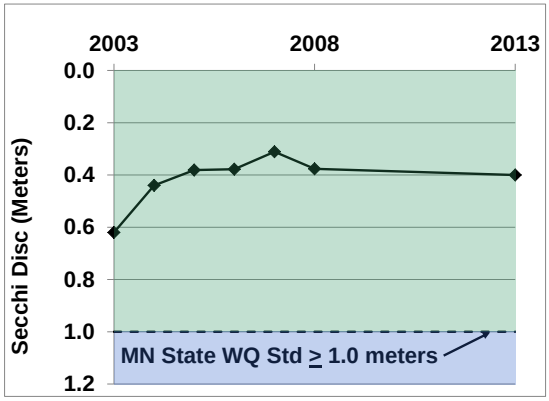
The lake monitoring program goals and objectives include:

- Determine whether each lake meets MPCA lake water quality standards
- Determine response of lakes to District management programs, such as the curly-leaf pondweed management program on the Anderson Lakes or the alum treatment of Southwest Anderson Lake
- Monitor for excessive quantities of toxin producing blue-green algae that may pose a public health risk.
- Determine prevalence of invasive aquatic plant species (such as Eurasian watermilfoil, curly-leaf pondweed, purple loosestrife), including changes in invasive species prevalence due to District management programs.

Results of the 2013 lake monitoring program follow.

North Cornelia Lake, pictured above, is stocked with bluegill by MDNR annually for the Fishing in the Neighborhood Program.





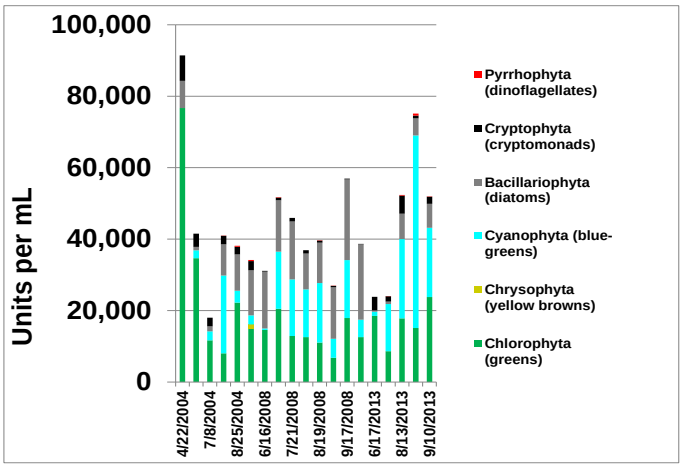
North Cornelia Lake average summer total phosphorus (top), Chlorophyll *a* (middle) and Secchi Disc (bottom) values during 2003-2013

North Cornelia Lake

North Cornelia Lake is a small shallow lake and is part of a natural marsh area located in central Edina. The lake has a surface area of about 19 acres and has a maximum depth of 5 feet. North Cornelia Lake is connected to South Cornelia Lake by a 12-inch culvert under 66th Street. The lake is very fertile and annually experiences very poor water quality. Because the lake's water quality does not meet MPCA shallow lake standards, the lake has been listed on the MPCA impaired waters list since 2008. The Nine Mile Creek Watershed District has completed a Use Attainability Analysis (UAA) of North Cornelia Lake and determined its poor water quality primarily results from phosphorus loading from the lake's watershed, but internal recycling of phosphorus also contributes toward the lake's poor water quality. Despite its poor water quality, the lake has recreational value as a fishing lake since the MDNR annually stocks the lake with

bluegill for the Fishing in the Neighborhood Program. For this reason, the Nine Mile Creek Watershed District manages the lake for fishing and aesthetic viewing, a level 3 classification in the District's lake classification system.

In 2013, the lake's water quality was very poor. The lake's average summer total phosphorus and chlorophyll *a* concentrations were 180 and 62 µg/L, respectively. The lake's average summer Secchi disc transparency was 0.4 meters. The average summer total phosphorus concentration, chlorophyll *a* concentration, and Secchi disc transparency failed to meet the Minnesota State Water Quality Standards for shallow lakes which are ≤ 60 µg/L, ≤20 µg/L, and ≥ 1 meter, respectively. Hence, the lake was impaired in 2013.



2004-2013 summary of North Cornelia Lake algae by group. The graph shows an increased prevalence of blue-greens in 2013.

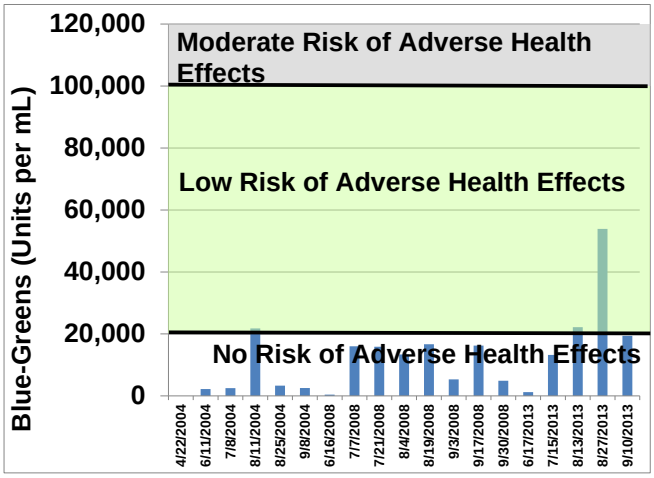
2013 total phosphorus and chlorophyll *a* concentrations and Secchi disc transparency measurements were relatively similar to historical values. Hence, though poor, the lake's water quality appears stable.

The lake's 2013 phytoplankton community was assessed to determine the numbers and types of algae present in the lake as well as if/when blue-green algal blooms occur that could be a public health risk for pets and lake users. Not all blue-green algae produce toxins, but the presence of blue-green algae is a marker for a potential hazard. The World Health Organization (WHO) developed guidelines to determine risks from blue-green algae. No adverse health effects are expected when fewer than 20,000 blue-green algae per milliliter are observed. Low adverse

health effects, such as skin irritations and/or gastrointestinal illness may occur when numbers are between 20,000 and 100,000 per milliliter. When blue-green algae numbers exceed 100,000 per milliliter, moderately adverse health effects, including the potential for long-term illness, may occur (WHO 2003). When ingested or inhaled, algal toxins can cause short- and long-term health effects. These effects range from tingling, burning, numbness, drowsiness, and dermatitis to liver or respiratory failure—possibly leading to death.

As in previous years, the lake's 2013 algal community was indicative of the lake's fertile conditions. A change from previous years, however, was an increase in blue-green algae prevalence during late summer. This change increased the incidence of exceeding the threshold for low risk of adverse health effects from none during 2008 to two in 2013.

The phytoplankton data suggest periodic monitoring for phytoplankton is necessary to identify changes in types and numbers of blue-green algae. The data also affirm the importance of future efforts to protect the lake's current water quality from degradation so as to prevent increases in blue-green algae, particularly species that produce toxins.



2004-2013 comparison of North Cornelia Lake blue-green algae numbers to World Health Organization (WHO) thresholds for risk of adverse health effects from exposure to blue-greens.

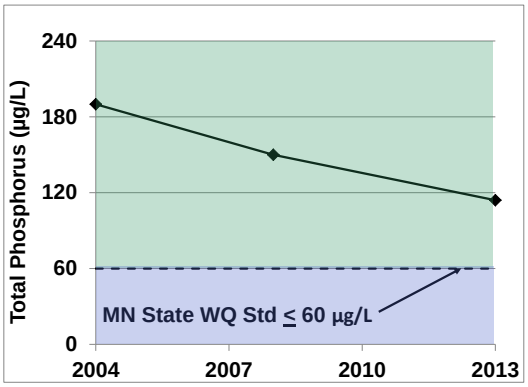
Due to the lake's poor water transparency throughout the growing season, aquatic plant growth was restricted to a narrow band along the edge the lake. The majority of plant growth was emergent plant growth along the lake's shoreline consisting of bulrush and cattail. The

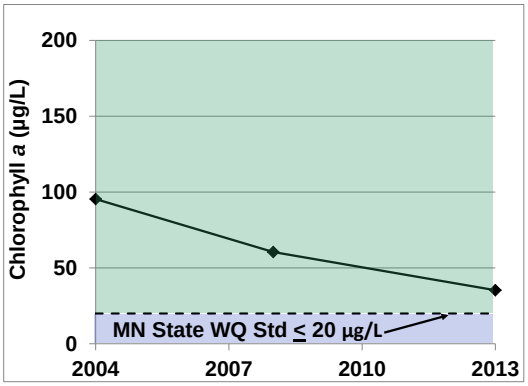
submerged plant growth consisted of a very narrow band adjacent to some of the emergent plant beds. The density of submerged plant growth was generally light. A total of eight plant species were observed, including two non-native invasive species – purple loosestrife (*Lythrum salicaria*) and curly-leaf pondweed (*Potamogeton crispus*). Curly-leaf pondweed growth was very light and not problematic.

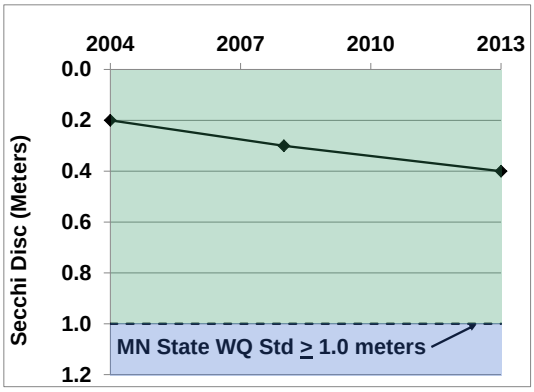
Water quality in South Cornelia Lake, pictured above, improved in 2013.

South Cornelia Lake

South Cornelia Lake is a small shallow lake and is part of a natural marsh area located in central Edina. The lake has a surface area of about 31 acres and has a maximum depth of 7 feet. South Cornelia Lake is connected to North Cornelia Lake by a 12-inch culvert under 66th Street. The lake is very fertile and annually experiences very poor water quality. Because the lake's water quality does not meet MPCA shallow lake



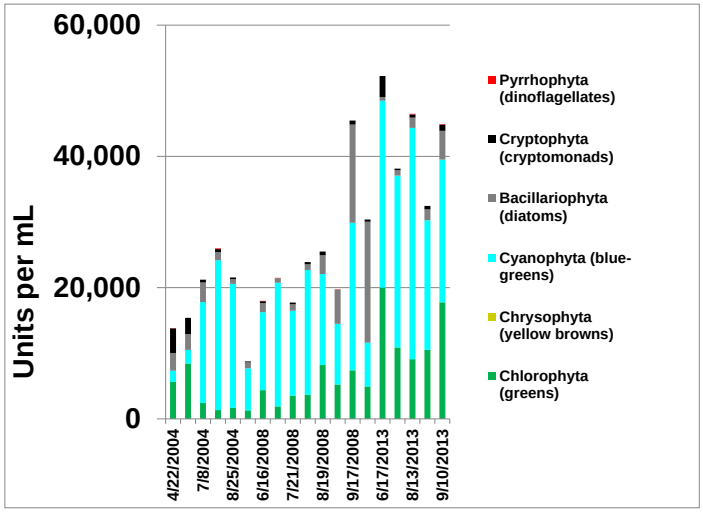




South Cornelia Lake average summer total phosphorus (top), chlorophyll *a* (middle), and Secchi disc (bottom) values during 2004-2013

standards, the lake has been listed on the MPCA impaired waters list since 2008.

The Nine Mile Creek Watershed District has completed a Use Attainability Analysis (UAA) of North Cornelia Lake and determined its poor water quality primarily results from phosphorus loading from the lake's watershed, but internal recycling of phosphorus also contributes toward the lake's poor water quality. Despite its poor water quality, the lake has recreational value as a fishing lake since the MDNR annually stocks the lake with bluegill for the Fishing in the Neighborhood Program. For this reason, the Nine Mile Creek Watershed District manages the lake for fishing and aesthetic viewing, a level 3 classification in the District's lake classification system.

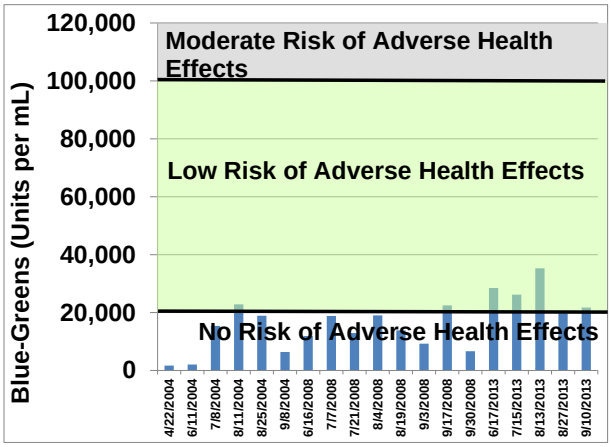


2004-2013 summary of South Cornelia Lake algae by group. The graph shows an increased prevalence of blue-greens in 2013.

In 2013, the lake's water quality was very poor. The lake's average summer total phosphorus and chlorophyll *a* concentrations were 114 and 35 µg/L, respectively. The lake's average summer Secchi disc transparency was 0.4 meters. The average summer total phosphorus concentration, chlorophyll *a* concentration, and Secchi disc transparency failed to meet the Minnesota State Water Quality Standards for shallow lakes which are $\leq$ 60 µg/L, $\leq$20 µg/L, and $\geq$ 1 meter, respectively. Hence, the lake was impaired in 2013.

Even though poor, the lake's water quality has consistently improved since monitoring began in 2004.

Total phosphorus concentrations have declined from 190 µg/L in 2004 to 153 µg/L in 2008 to 114 µg/L in 2013. Chlorophyll *a* concentrations have declined from 95 µg/L in 2004 to 61 µg/L in 2008 to 35 µg/L in 2013. Secchi disc transparency measurements have increased from 0.2 meters in 2004 to 0.3 meters in 2008 to 0.4 meters in 2013.



2004-2013 Comparison of South Cornelia Lake blue-green algae numbers to World Health Organization (WHO) thresholds for risk of adverse health effects from exposure to blue-greens.

As in previous years, the lake's 2013 algal community was indicative of the lake's fertile conditions. A change from previous years, however, was an increase in blue-green algae prevalence during late summer. This change increased the incidence of exceeding the threshold for low risk of adverse health effects from one during 2004 and 2008 to four in 2013. When the threshold was exceeded in 2013, the numbers of blue-green algae were fairly close to the threshold.

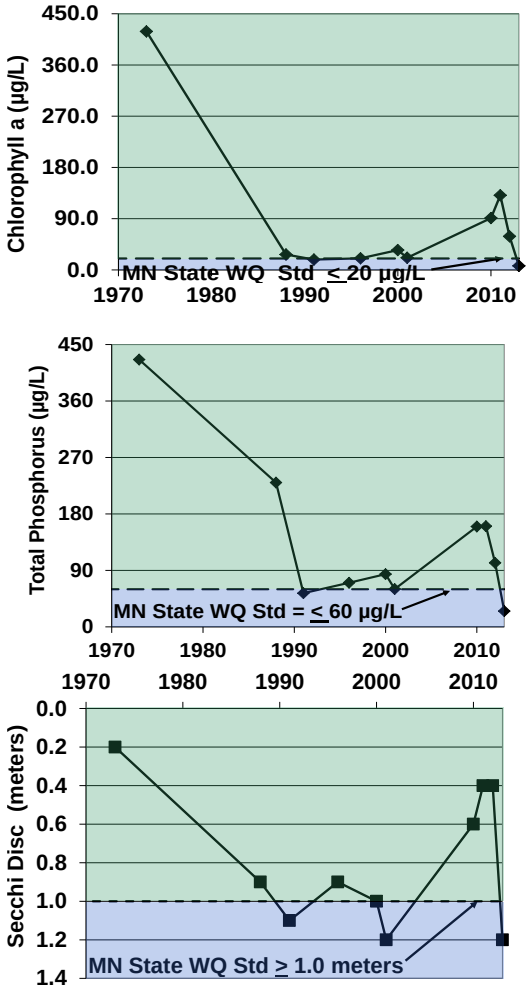
As noted for North Cornelia Lake, the phytoplankton data suggest periodic monitoring for phytoplankton is necessary to identify changes in types and numbers of blue-green algae and affirm the importance of future efforts to protect the lake's current water quality from degradation so as to prevent increases in algal species that produce toxins.

Due to the lake's poor water transparency throughout the growing season, aquatic plant growth was primarily restricted to a narrow band along the edge the lake. A total of thirteen plant species

were observed, including two non-native invasive species – purple loosestrife (*Lythrum salicaria*) and curly-leaf pondweed (*Potamogeton crispus*). Curly-leaf pondweed growth was very light and not problematic.

Southwest Anderson Lake

Southwest Anderson Lake has a surface area of 110 acres and a maximum depth of 8 feet. Water quality improvement projects were completed on Southwest Anderson Lake during 2008 through 2012 to reduce internal phosphorus loading. A partial drawdown of the lake was completed during the fall of 2008 to expose the lake bed to a winter freeze and freeze out curly-leaf pondweed (CLP). The drawdown successfully controlled CLP except for the lake's central area that was not drained. Herbicide treatments during 2010 and 2011 controlled CLP in the lake's central area. Alum treatment completed in 2012 reduced internal phosphorus loading from sediment. The 2013 data wereassessed to determine water quality changes resulting from the management efforts.



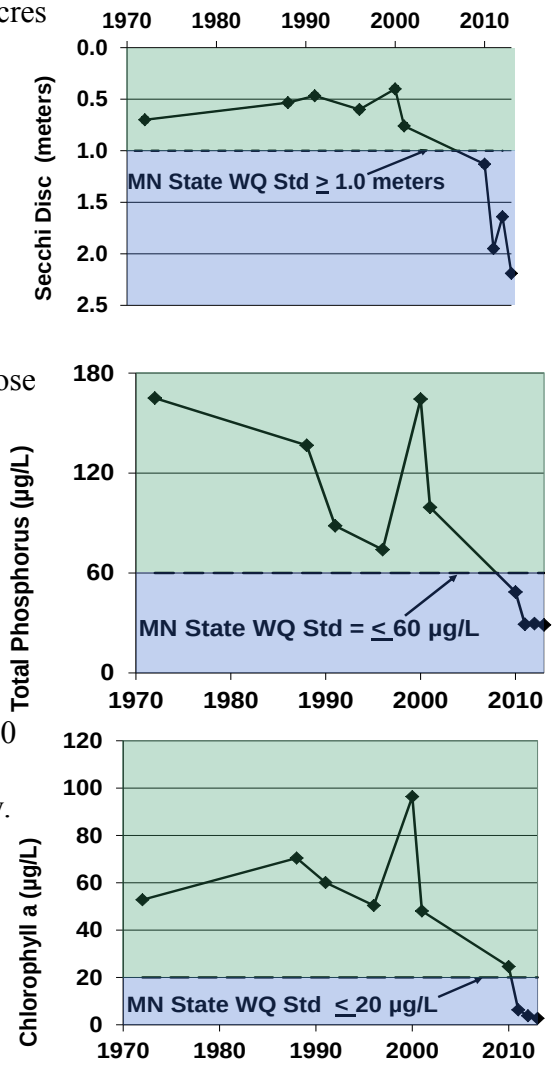
Southwest Anderson Lake average summer total phosphorus (top), chlorophyll *a* (middle), and Secchi disc (bottom) values during 1973-

In 2013, the lake's water quality was excellent. The lake's average summer total phosphorus and chlorophyll *a* concentrations were 25 and 7 µg/L, respectively. The lake's average summer Secchi disc transparency was 1.2 meters. The Secchi disc was visible to the lake's bottom from April through early July and in September. During the rest of the summer, the Secchi disc was obscured by submerged plants (rather than algal turbidity). The average summer total phosphorus concentration, chlorophyll *a* concentration, and Secchi disc transparency met the Minnesota State Water Quality Standards for shallow lakes which are $\leq$ 60 µg/L, $\leq$20 µg/L, and $\geq$ 1 meter, respectively.

The District water quality improvement projects substantially improved the lake's water quality. Relative to historical concentrations, (1) the 2013 summer average total phosphorus concentration of 25 µg/L was 83 percent lower than the 1973 through 2012 summer average of 150 µg/L, (2) the 2013 summer average chlorophyll a concentration of 7 µg/L was 92 percent lower than the 1973 through 2012 summer average of 91 µg/L, and (3) the 2013 summer average Secchi disc transparency of 1.2 meters was 50 percent better (higher) than the 1973 through 2012 summer average of 0.8 meters. Aquatic plant growth obscured the Secchi disc during the summer of 2013 while algal turbidity obscured the Secchi disc during 1973 through 2012.

Northwest Anderson Lake

Northwest Anderson Lake has a surface area of 185 acres and a maximum depth of 10 feet. Water quality improvement projects were completed on Northwest Anderson Lake during 2008 through 2012 to reduce internal phosphorus loading. A partial drawdown of the lake was completed during the fall of 2008 to expose the lake bed to a winter freeze and freeze out curly-leaf pondweed (CLP). The drawdown successfully controlled CLP except for the lake's eastern bay that was not drained. Herbicide treatments during 2010 through 2013 controlled CLP in the lake's eastern bay. The 2013 data were assessed to determine water quality changes resulting from the management efforts.



Northwest Anderson Lake average summer total phosphorus (top), chlorophyll *a* (middle), and Secchi disc (bottom) values during 1972-2013

In 2013, the lake's water quality was excellent. The lake's average summer total phosphorus and chlorophyll *a* concentrations were 29 and 3 µg/L, respectively. The lake's average summer Secchi disc transparency was 2.2 meters. The average summer total phosphorus concentration, chlorophyll *a* concentration, and Secchi disc transparency met the Minnesota State Water Quality Standards for shallow lakes which are ≤ 60 µg/L, ≤20 µg/L, and ≥ 1 meter, respectively.

The District water quality improvement projects substantially improved the lake's water quality. Relative to historical concentrations, (1) the 2013 summer average total phosphorus concentration of 29 µg/L was 69 percent lower than the 1972 through 2012 summer average of 93 µg/L, (2) the 2013 average 2013 summer average chlorophyll a concentration of 3 µg/L was 94 percent lower than the 1972 through 2012 summer average of 46 µg/L, and (3) the 2013 summer average Secchi disc transparency of 2.2 meters was 139 percent better (higher) than the 1972 through 2012 summer average of 0.9 meters.

Prior to the 2008 lake drawdown, approximately 45 percent of the lake was covered with CLP. Successful control of CLP by the District projects reduced its presence to a single east bay location in 2013 and no turions (function as seeds) were observed in the lake. The control of CLP has improved the lake's water quality and has also improved the quality of the plant community.

Since 2010, Northwest Anderson Lake has been dominated by muskgrass, pictured above.

Since 2010, the plant community has been dominated by muskgrass (*Chara sp.*). Because muskgrass is 1) a favorite waterfowl food, 2) considered valuable fish habitat, and 3) a strong nutrient absorber, its rise to dominance in the lake following control of curly-leaf pondweed is considered a favorable change for the lake.

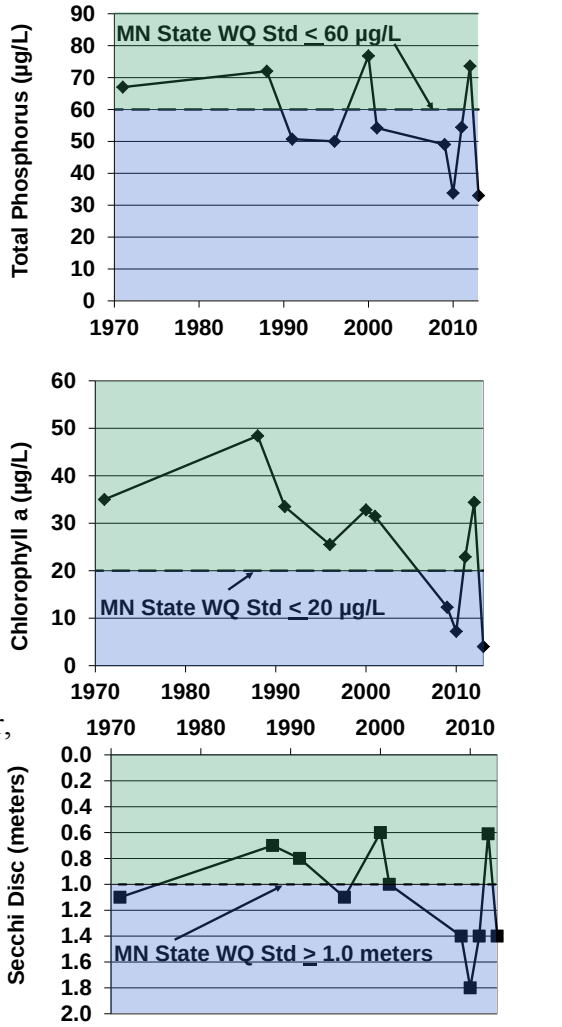
Southeast Anderson Lake

Southeast Anderson Lake has a surface area of 81 acres and a maximum depth of 9 feet. Herbicide treatment of curly-leaf pondweed (CLP) was completed during 2009 through 2013 to

reduce internal phosphorus loading. The 2013 data were assessed to determine water quality improvements from the management efforts.

In 2013, the lake's water quality was excellent.

The lake's average summer total phosphorus and chlorophyll *a* concentrations were 33 µg/L and 4 µg/L, respectively. The lake's average summer Secchi disc transparency was 1.4 meters. The Secchi disc was visible to the lake's bottom on June 10, June 24, July 8, and September 20. During the rest of the summer, the Secchi disc was obscured by submerged plants (rather than algal turbidity).



Southeast Anderson Lake summer average total phosphorus (top), chlorophyll *a* (middle), and Secchi disc (bottom) during 1971-2013.

The average summer total phosphorus concentration, chlorophyll *a* concentration, and Secchi disc transparency met the Minnesota State Water Quality Standards for shallow lakes which are ≤ 60 µg/L, ≤20 µg/L, and ≥ 1 meter, respectively.

Historical data indicate the CLP management project substantially improved the lake's water quality. Relative to historical concentrations, (1) the 2013 summer average total phosphorus concentration of 33 µg/L was 43 percent lower than the 1971 through 2012 summer average of

58 µg/L, (2) the 2013 average summer chlorophyll a concentration of 4 µg/L was 86 percent lower than the 1971 through 2012 summer average of 28 µg/L, and (3) the 2013 summer average Secchi disc transparency value of 1.4 meters was 33 percent better (higher) than the 1971 through 2012 summer average of 1.1 meters.

Since CLP management began in 2009, the lake's water quality has met the Minnesota State Water Quality Standard for shallow lakes during years in which climatic conditions were normal or wet. However, during years in which climatic conditions were dry and water levels were low, such as 2009, internal phosphorus loading from sediment caused poor water quality in the lake

Herbicide treatments to control CLP in Southeast Anderson Lake, pictured above, have improved the lake's water quality and the quality of the plant community.

and the standard was not met.Herbicide treatments during 2009 through 2013 have substantially reduced the area of the lake covered by CLP. Prior to beginning herbicide treatment in 2009, approximately 42 percent of the lake was covered with CLP compared with 7 percent after the 2013 treatment. In addition, the number of turions (function as seeds) in the sediment has been reduced by an order of magnitude (i.e., from 104 per square meter to 10.7 per square meter). Herbicide treatments to control CLP in Southeast Anderson Lake have not only improved the lake's water quality, but have also improved the quality of the lake's plant community. Floristic Quality Index (FQI) provides an indication of plant community quality with increasing FQI values indicating increasing quality of the plant community. A 41 percent increase in FQI values have been observed since CLP management began in 2009.

Status of Local Plan Adoption and Implementation

The District monitors the plans of watershed districts and water management organizations that affect the District's cities and that have been approved by the Board of Soil and Water Resources. The District also reviews and approves the Comprehensive Surface Water Management Plans of each of the cities in the District. Currently, the cities of Bloomington, Eden Prairie, Edina, Minnetonka, and Richfield have approved local water plans.

Biennial Solicitation of Interest Proposals

Under M.S.A. 103B.227, subd. 5, the District must issue a biennial solicitation for legal, technical, and other professional services. The District issued a formal solicitation for accounting, engineering, and legal services in September 2013. The District selected Cavanaugh and Associates as its accountant, Barr Engineering as its engineer and Smith Partners, PLLP as

its legal counsel in October 2013. The District selected HLB Tautges Redpath to conduct the District's annual financial audit. New proposals for engineering, legal, and other professional services will be solicited in September 2015.

Fund Balances for Specific Program Elements.

The District's fund balances and financial status are included in the District's annual audit. The annual audit is included as an appendix to this report.

Status of any Locally Adopted Wetland Banking Program

Because of the inherent limitations of a fully urbanized watershed, the District has not developed a wetland-banking program. Instead, it uses the state wetland bank administered by the Minnesota Board of Water and Soil Resources.

Annual Written Communication to the Public

As required by Minn. R. 8410.0100, subp.4, the District prepared and disseminated its annual communication to the public that identified the Board members, the current CAC members, contact and public meeting information, and information concerning its role in watershed planning. In 2013, the District produced the 2014 Nine Mile Creek Year at a Glance Calendar/2013 Annual Communication. Copies of the Calendar and Annual Communications are included in the Appendix.

Annual Audited Financial Report and Audit Report

The District's audited annual financial report was prepared by HLB Tautges Redpath, Ltd., a certified public accounting firm. As required by Minn. R. 8410.0150, subp. 2, the Audited Financial Report includes classification and reporting of revenues and expenditures, a balance sheet, an analysis of changes in final balances, and all additional statements necessary for full financial disclosure. The 2013 Audited Financial Report may be found in the appendix to this Annual Report.

2014 Annual Budget

The District adopted its 2014 Annual Budget in September 2013. The 2014 Budget may be found in the appendix to this Annual Report.

Appendix

1. **2013 Annual Financial Audit**
2. **2014 Approved Annual Budget**
3. **Copy of 2013 Annual Communication**