



2015 Activity Report



Greenfield • Independence • Loretto • Maple Plain • Medina • Minnetrista

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This report was prepared
for the Pioneer-Sarah Creek Watershed Management Commission
by JASS, Inc.

Questions regarding this report should be directed
to JASS, 763.553.1144 or judie@jass.biz.

We gratefully acknowledge the assistance of:
Rich Brasch, Three Rivers Park District
Brian Johnson, Metropolitan Council
Mary Karius, Hennepin County Dept. of Environment and Energy
James Kujawa, Hennepin County Dept. of Environment and Energy
Brian Vlach, Three Rivers Park District

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Rich Brasch, TRPD

ANNUAL ACTIVITY REPORT

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

PIONEER-SARAH CREEK WATERSHED MANAGEMENT COMMISSION

The Commission was established to protect and manage the natural resources of the Pioneer and Sarah Creek watersheds. It is a joint powers watershed organization formed as required under MN Statutes 103B.201-103B.255 and MN Rules Chapter 8410. A Board of Commissioners comprised of representatives appointed by the member communities was established as the governing body of the Commission. Its membership is comprised of the cities of Greenfield, Independence, Loretto, Maple Plain, Medina, and Minnetrista. The table in *Appendix 1* shows the names of the Commissioners appointed to serve in 2015.

MEETINGS

The Commission meets on the third Thursday of the month. The meetings are open to the public and visitors are welcome. Meeting notices, agendas, and approved minutes are posted on the Commission's website, www.pioneersarahcreek.org.

STAFF AND CONSULTANTS

The Commission has no employees. Independent consultants perform technical, legal, administrative, and wetland services for the Commission and are selected biannually. The current staff and consultants are also listed in *Appendix 1*.

THE WATERSHED

Located entirely within western Hennepin County, the Pioneer-Sarah Creek watershed covers approximately 70.5 square miles and includes the watersheds of Pioneer Creek and Sarah Creek. The Crow River demarcates most of the northern boundary. Portions or all of the six member cities are within the legal boundaries of the Pioneer-Sarah Creek watershed and are listed in Table 1. A map of the watershed can be viewed on the Commission's website.

WATERSHED MANAGEMENT PLAN

The Commission began development of its Third Generation Watershed Management Plan in 2013 at a kick-off meeting where the Commissioners received input from review agencies and member cities and began identifying water resource issues and goals to be addressed in the Third Generation Plan. This was followed by a gaps analysis and visioning process to further shape future goals.

Table 1
Area of Members within the Pioneer-Sarah Creek Watershed

Local Government Unit	Area Within Watershed (Square Miles)	Percent of Watershed
Greenfield	21.5	30.5%
Independence	29.7	42.1%
Loretto	0.3	0.4%
Maple Plain	0.8	1.1%
Medina	7.5	10.7%
Minnetrista	10.7	15.2%
TOTAL:	70.5	100.0%

From this the Commissioners developed the framework, guiding principles, and goals for the Third Generation Monitoring Program. This program includes routine flow and water quality monitoring in the lakes and streams; volunteer monitoring; and periodic special monitoring to evaluate progress towards meeting TMDL or other goals. It is intended that annually the Commission will evaluate the program and make modifications as necessary based on the most current data needs.

A Citizens Advisory Committee (CAC) met to develop the Third Generation Plan Education and Public Outreach Program. The goal of program is to *educate and engage everyone in the watershed by increasing awareness of water resources, and creating and supporting advocates willing to protect and preserve the resources in the watershed*. Six general stakeholder groups with associated education topics were identified.

The Technical Advisory Committee (TAC) also met in 2013 to review and revise the Commission's existing Rules and Standards for development and redevelopment projects in the watershed. Five of the six member cities (Independence, Loretto, Maple Plain, Medina, and Minnetrista) are MS4s regulated under the State of Minnesota's General NPDES/SDS Permit, which was revised and reissued effective August 1, 2013. Development and redevelopment in the MS4s must meet water quality, rate control, and volume management requirements that are more stringent than the Commission's current standards. In addition, the TMDLs in the WRAPS study currently underway will likely require significant phosphorus load reductions.

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

1. Educate the Commissioners and member City Councils and Planning Commissions regarding watershed and water resources management.
2. Undertake a monitoring program to monitor water quality trends and to track progress toward meeting TMDLs.
3. Partner with member cities and other parties to conduct subwatershed assessments and other studies to identify feasible and cost-effective Best Management Practices to protect and improve water quality.

The final stage of the planning process occurred in 2014 and involved developing an Implementation Plan and populating the Capital Improvement Program.

The draft Plan was sent out for review by the member cities and reviewing agencies in August 2014 and a public hearing was held to receive comments on November 20, 2014. Following the hearing, a record of the hearing, the comments received and the Commission's responses to those comments, along with the updated draft of the Third Generation Watershed Management Plan were forwarded to the Board of Water and Soil Resources (BWSR). BWSR approved the plan for a period of six years on January 28, 2015.

LOCAL PLANS

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

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

2015 OBJECTIVES

Following is a summary of the work undertaken by the Pioneer-Sarah Creek Watershed Management Commission in 2015 to meet the goals, objectives, and projected work plan out-lined in its *2014 Annual Report*. The Commission identified the following activities in 2015.

(💧 = completed, 💧 = ongoing, ⬇️ = not completed, ⬆️ = not undertaken)

A. ONGOING TECHNICAL AND ADMINISTRATIVE PROGRAMS

- 💧 1. Continue to review local development/redevelopment plans for conformance with the standards outlined in the Commission's Third Generation Watershed Management Plan.
 - 💧 a. Maintain the current flood profile of the creeks and their tributaries.
 - 💧 b. Develop a whole-watershed sustainable water budget.
 - 💧 c. Maintain the post-development 2-year, 10-year, and 100-year peak rate of runoff at pre-development level for the critical duration precipitation event.

- 💧 d. Maintain the post-development annual runoff volume at pre-development volume.
- 💧 e. Prevent the loss of floodplain storage below the established 100-year elevation. *Ten projects were reviewed by the Commission in 2015. The Commission does not have a permit program. A list of the projects reviewed in 2015, along with a map showing their locations, are found in Appendix 2.*
- 💧 2. Continue to serve as the local government unit (LGU) for administering the Wetland Conservation Act (WCA) for the cities of Greenfield, Loretto and Maple Plain. Preserve the existing functions and values of wetlands within the watershed. Promote enhancement or restoration of wetlands in the watershed. *In 2015 the Pioneer-Sarah Creek Commission reviewed seven plans involving wetlands, participated in two Technical Evaluation Panels (TEPs), and received no wetland banking applications. Two new potential WCA violations were also investigated. The Commission does not have a wetland banking program.*
- 💧 3. Adopt a 2016 operating budget. Search for grant and other funds to supplement the regular budget. Operate a capital improvement program and share in the cost of projects. *At its June 18, 2015 regular meeting, the Commission approved a 2016 operating budget totaling \$131,550, with assessments to the member cities totaling \$131,090. (Appendix 3)*
 - 💧 a. Review and update the Commission's Cost-Share Policy. *This process was underway at year-end.*
 - 💧 b. Consider the use of ad valorem tax cost-share funding to implement CIPs. *In an informal survey of member City Councils taken in 2015, the cities were split 3-3 on the use of ad valorem funding for CIPs.*
- 💧 4. Publish a 2014 Annual Activity Report summarizing the Commission's yearly activities and financial reporting. *The 2014 Annual Activity Report was accepted by the Commission at its April 16, 2015 meeting.*
- 💧 5. Draft a 2015 Work Plan. *The Commissioners approved the 2015 Work Plan at their March 4, 2015 meeting.*

B. WATER QUALITY AND QUANTITY

- 1. Support the Commission's management goals for water quality. Continue to make progress to improve the lakes and streams in the watershed as well as protect those that are not impaired.
 - 💧 a. Improve water clarity in the impaired waters by 10% over the average of the previous ten years by 2023.
 - 💧 b. Maintain or improve water quality in the lakes and streams with no identified impairments.

- 2. Foster implementation of BMPs in the watershed through technical and financial assistance. *This is an ongoing activity. Emphasis will be on identifying BMPs that will facilitate load reductions identified in the WRAPS.*
- 3. Develop and publish a model manure management ordinance within six months of the Plan's adoption or adopt standards and practices that will accomplish the objective of reducing phosphorus load from new livestock operations. *Development of a model ordinance to reduce phosphorus loading from new livestock operations is a priority for the Commission and will be pursued in 2016.*
- 4. Operate a monitoring program sufficient to characterize water quantity and quality and biotic integrity in the watershed and evaluate progress toward TMDL goals. Partner with Three Rivers Park District (TRPD) to conduct water quality monitoring in the watershed. Bring stream and lake monitoring efforts into line with monitoring program outlined in approved Third Generation Plan. *This monitoring program will be ongoing.*
 - a. Partner with Three Rivers Park District (TRPD) to conduct bi-weekly water quality monitoring of "sentinel lakes" – Independence, Sarah, and Little Long, along with both basins of Whaletail. *Lakes Independence, Sarah and both basins of Whaletail were monitored in 2015. (Appendix 4)*
 - b. Partner with Three Rivers Park District (TRPD) to conduct flow and water quality monitoring on Pioneer Creek at Copeland Road and Sarah Creek at County Road 92, along with possible water quality and flow monitoring at up to two additional sites, depending on budget. *On behalf of the Commission, TRPD conducted flow monitoring on Pioneer Creek at Copeland Road and Pagenkopf Road and Sarah Creek at County Road 92. (Appendix 5)*
 - c. Participate in Metropolitan Council's Citizen Assisted Monitoring Program (CAMP). In 2015 the Commission will fund the monitoring of one lake. *No lakes were monitored under CAMP in 2015 due to a lack of volunteers.*

C. EDUCATION

- 1. Annually evaluate the proposed Education and Outreach program and establish education and outreach activities for the coming year, including goals and strategies identified in the WRAPS study. *This evaluation occurs during the budget development process.*
- 2. Convene Citizen Advisory Committees as necessary to make recommendations on education and outreach actions and assist the Commission with implementation. *The CACs were not convened in 2015.*
- 3. Educate Commissioners, member City Councils and Planning Commissions about watershed and water resources management. Sponsor watershed and water resources training opportunities such as NEMO (Nonpoint Education for Municipal Officials). *A number of Commissioners and city officials participated in the 2015 Clean Water Summit, the NEMO on the Water Workshop, and the Salt-Sand-Snow: Winter Road and Parking Lot Management Workshop.*

4. Participate with collaborative groups to pool resources to undertake activities in a cost-effective manner, promote interagency cooperation and collaboration, and promote consistency of messages. Use the Commission's, member cities', and educational partners' websites and newsletters, social media, co-ops, local newspapers and cable TV to disseminate education materials to all stakeholders about actions they can take to protect and improve water quality. *The Commission began partnering with local media to promote Commission activities and disseminate its messages. Information was*



Most cities participated in the NEMO on the Water Workshop

disseminated to the member cities for inclusion on their websites. Such activities as road salt workshops, the WRAPS Community Conversations, and NEMO programs were highlighted. Public notices of the hearings for adoption of the Third Generation Watershed Management Plan and subsequent Plan Amendment were published in local newspapers.

a. Continue to maintain the Commission's website to provide news to residents of the watershed. *Maintenance and updating of the website is an ongoing task.*

5. Provide opportunities for the public to learn about and participate in water quality activities. Enhance education opportunities for youth. Provide opportunities for bridge-building between stakeholders. *The West Metro Water Alliance (WMWA) educators contacted schools in the Pioneer-Sarah Creek watershed to inform them of the Watershed PREP program. No classroom lessons were scheduled in 2015.*



a. Promote river stewardship through the River Watch program. Encourage participation by local school students and their teachers. *No sites in the watershed were monitored through the River Watch program in 2015; however, a site in the Kingswood Nature Area was identified and included in the Wetland Health Evaluation Program (WHEP). (Appendix 6)*

b. Work in partnership with Hennepin County's agriculture specialist to help build relationships with the agricultural community in the watershed in order to encourage TMDL implementation. *The ag specialist participated in the Dance Hall Creek subwatershed assessment as part of the management team and in contacting landowners in the assessment area. He also visited with local landowners to discuss viable best management practices for their properties.*

D. STUDIES, PROJECTS AND CIPS.

1. Complete Phase 1 of the WRAPS project; develop work plan for Phase 2 and continue efforts to complete. Conduct the second Community Conversation, complete mobile phosphorus work to help estimate internal loading component in impaired lakes, compile input data sets and conduct watershed modeling work for lakes, and compile TMDL and Protection Plan background report sections. Develop Phase 2 work plan and budget, modify contract accordingly, and begin work on executing the Phase 2 work plan. *At the conclusion of Phase 1 of the WRAPS project, watershed and in-lake models had been set-up and will be used to understand and quantify the various sources that are contributing to the observed water quality in the lakes. Draft sections of the final deliverables, including descriptions of water bodies, pollutants of concern, pollutant sources, priority rankings, descriptions of applicable water quality standards and numeric water quality targets were also completed. An overview of technical analysis approach (including the monitoring data analysis and modeling methodology) for both the TMDL and protection components of the final deliverables was also initiated.*

a. Schedule the second Community Conversation with stakeholders. *48 individuals attended the second Community Conversation on November 16 at Independence City Hall.*

The agreement for Phase 2 of the Pioneer Sarah Creek WRAPS project was executed by MPCA on July 8, 2015. A third Community Conversation will occur in Phase 2 and is scheduled for June 29, 2016. The overall outcome of this project will be a WRAPS Plan and TMDL Study that provides quantitative pollutant load reduction estimates and a set of pollutant reduction and watershed management strategies to achieve water quality standards for impairments within the watershed, and that are understood and adoptable by local units of government and stakeholders.



The ultimate outcome of the WRAPS study is improved or protected water quality in the water bodies within the watershed. The project will also provide an important water quality framework for civic and citizen engagement and communication, which will contribute to long-term public participation in surface water protection and restoration activities throughout the watershed.

Discussion at the second Community Conversation

b. Continue to identify TMDL implementation projects. Seek grant funding to assist with the costs associated with those projects. *Projects will be identified with more specificity during Phase 2 of the WRAPS project.*

2. Complete the Pioneer Creek Channel/Lake Independence Outlet Channel project. The DNR permit issued in 2013 to allow the clearing of materials from the outlet channel also allows for any necessary repairs to the weir. The condition of the weir will be examined when water conditions permit to determine its condition. *Upon examination of the condition of the weir, it was*

determined that it should be rebuilt. On October 10, 2015, the outlet control (weir), located under the bridge on Independence Road, was replaced at a very reasonable cost using



local talent and volunteers led by Brad Spencer, Councilor and Commission Alternate Representative from Independence. The cost of the project was shared by the cities of Independence and Medina, Three Rivers Park District, and the Pioneer-Sarah Creek Watershed Commission.

3. Present the Dance Hall Creek Subwatershed Retrofit Assessment to various stakeholder groups. Prioritize BMPs identified in the assessment for implementation or further study. *The study was presented to the stakeholders at a meeting on January 15, 2015 and to the Greenfield City Council on July 7, 2015. The project team is contacting individual stakeholders to determine their interest in implementing BMPs on their land.*

4. Cost-share with the Lake Sarah Improvement Association (LSIA) to complete a third round of curlyleaf pondweed (CLP) treatment in 2015. *In 2015, LSIA completed its third consecutive year of early season low-dose treatments of CLP. This “whole lake” treatment approach was accomplished by treating just 260 (of the total 383) littoral acres of Lake Sarah. The treatment was again applied by LSIA volunteers with the guidance of Craig Mueller, owner of Aquatic Solutions, who supplied the Aquathol K product at a competitive price. The total treatment cost of \$36,113 was covered by a \$26,000 DNR AIS grant, a Three Rivers Park District (TRPD) cost share of \$5,778 and a Commission cost share of \$1,011. LSIA membership donations made up the balance of the costs. A post-treatment inspection performed several weeks later confirmed the treatment was again very successful.*

5. Seek grant funding to assist with the costs associated with projects identified on the Commission’s CIP. *The City of Medina received a Clean Water Partnership grant from the Minnesota Pollution Control Agency to assist in funding the Lake Ardmore infiltration basin project, CIP ME-1 (right). This project will provide an estimated phosphorous removal of 8 lbs/year.*



6. Continue to support member cities as they identify studies and projects which benefit both the cities and the watershed. *This activity is ongoing.*

E. PLANNING

1. Adopt the Third Generation Watershed Management Plan and transmit it to the member cities. *The Commission adopted its Third Generation Plan on May 21, 2015. The Plan was approved by the Board of Water and Soil Resources (BWSR) for the period 2015-2020. On November 19, 2015, the Commission amended the Plan to adopt a revision to the plan amendment process to conform to the 2015 revisions to Minnesota Rule 8410. Following adoption of the Plan, member communities must prepare and adopt their own water management plans. (See page 3 of this report.)*

FINANCIAL REPORTING

Appendix 3 includes the Commission's approved budget for 2015. The Commission's Joint Powers Agreement provides that each member community contributes toward the annual operating budget based on its share of the total market value of all property within the watershed. The 2015 cost allocations to the members are shown as part of the Operating Budget.

Of the \$128,240 operating budget approved by the Commission for 2015, revenue of \$1,500 was projected as proceeds from application fees, and \$20 from interest income, resulting in assessments to members totaling \$126,720.

The Pioneer-Sarah Creek Watershed Management 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. Amounts paid by the Commission per the 2015 Audit, prepared by Johnson & Company, Ltd., Certified Public Accountants, (Appendix 3) are as follows:

General engineering	18,697	General administration	39,021
Education	7,789.	Programs	9,600
Projects	44,133	Planning	2,511
		Total	<u>\$121,751</u>

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, management plan amendments, and other non-engineering services.

2016 WORK PLAN

Following is the projected work plan for 2016 as approved by the Commission at its February 18, 2016 meeting.

A. ONGOING TECHNICAL AND ADMINISTRATIVE PROGRAMS

1. Continue to review local development/redevelopment plans for conformance with the standards outlined in the Commission's Third Generation Watershed Management Plan.

- a. Maintain the current flood profile of the creeks and their tributaries.
 - b. Develop a whole-watershed sustainable water budget.
 - c. Maintain the post-development 2-year, 10-year, and 100-year peak rate of runoff at pre-development level for the critical duration precipitation event.
 - d. Maintain the post-development annual runoff volume at pre-development volume.
 - e. Prevent the loss of floodplain storage below the established 100-year elevation.
2. Continue to serve as the local government unit (LGU) for administering the Wetland Conservation Act (WCA) for the cities of Greenfield, Loretto and Maple Plain. Preserve the existing functions and values of wetlands within the watershed. Promote enhancement or restoration of wetlands in the watershed.
 3. Adopt a 2017 operating budget. Search for grant and other funds to supplement the regular budget. Operate a capital improvement program and share in the cost of projects.
 - a. Review and update the Commission's Cost Share Policy.
 4. Publish a 2015 Annual Activity Report summarizing the Commission's yearly activities and financial reporting.
 5. Draft a 2016 Work Plan.

B. WATER QUALITY AND QUANTITY

1. Support the Commission's management goals for water quality. Continue to make progress to improve the lakes and streams in the watershed as well as protect those that are not impaired.
 - a. Improve water clarity in the impaired waters by 10% over the average of the previous ten years by 2023.
 - b. Maintain or improve water quality in the lakes and streams with no identified impairments.
2. Foster implementation of BMPs in the watershed through technical and financial assistance.
3. Develop and publish a model manure management ordinance or adopt standards and practices that will accomplish the objective of reducing phosphorus load from new livestock operations.
4. Operate a monitoring program sufficient to characterize water quantity and quality and biotic integrity in the watershed and evaluate progress toward TMDL goals. Partner with Three Rivers Park District (TRPD) to conduct water quality monitoring in the watershed. Bring stream and lake monitoring efforts into line with the monitoring program outlined in the Third Generation Plan.
 - a. Partner with TRPD to conduct bi-weekly water quality monitoring of "sentinel lakes" – *Independence, Sarah, and both basins of Whaletail.*

b. Partner with TRPD to monitor stream flow at three sites - *Pioneer Creek at Pagenkopf Road (below Lake Independence), Pioneer Creek at Copeland Road, and Sarah Creek at County Road 92 (below Lake Sarah). Consider adding bi-weekly or monthly monitoring of Peter Lake to clarify impaired status.*

c. Participate in Metropolitan Council's Citizen Assisted Monitoring Program (CAMP). *The Commission has budgeted for the monitoring of two lakes through CAMP in 2016.*

C. EDUCATION

1. Annually evaluate the proposed Education and Outreach program and establish education and outreach activities for the coming year, including goals and strategies identified in the WRAPS study.

2. Educate Commissioners, member City Councils and Planning Commissions about watershed and water resources management. Sponsor watershed and water resources training opportunities such as NEMO (Nonpoint Education for Municipal Officials).

3. Convene Citizen Advisory Committees as necessary to make recommendations on education and outreach actions and assist the Commission with implementation.

4. Participate with collaborative groups to pool resources to undertake activities in a cost-effective manner, promote interagency cooperation and collaboration, and promote consistency of messages. Use the Commission's, member cities', and educational partners' websites and newsletters, social media, co-ops, local newspapers and cable TV to disseminate education materials to all stakeholders about actions they can take to protect and improve water quality.

a. Continue to maintain the Commission's website to provide news to residents of the watershed. *The Commission will update and freshen its website in 2016.*

5. Provide opportunities for the public to learn about and participate in water quality activities. Enhance education opportunities for youth. Provide opportunities for bridge-building between stakeholders.

a. Promote river stewardship through the River Watch program. Encourage participation by local school students and their teachers. *The monitoring of two sites is included in the 2016 budget.*

b. Work in partnership with Hennepin County's agriculture specialist to help build relationships with the agricultural community in the watershed in order to encourage TMDL implementation.

D. STUDIES, PROJECTS AND CIPS.

1. Continue to undertake Phase 2 of the WRAPS project. Hold the third Community Conversation. *Phase 2 extends to June 30, 2017 and is the final phase of the project. The third Community Conversation is scheduled for June 29, 2016.*

- a. Continue to identify TMDL implementation projects. Seek grant funding to assist with the costs associated with those projects.
2. Prioritize BMPs identified in the Dance Hall Creek Subwatershed Retrofit Assessment for implementation or further study.
3. Cost-share with the Lake Sarah Improvement Association (LSIA) to complete a round of curlyleaf pondweed treatment in 2016.
4. Seek grant funding to assist with the costs associated with projects identified on the Commission's CIP.
5. Continue to support member cities as they identify studies and projects which benefit both the cities and the watershed. *Prepare a detailed study of Phase I of the Baker Park Gully Restoration Project (CIPs IN-4, MP-4) which will focus on BMPs that will help reduce, slow, or redirect stormwater flow from the subwatershed that feeds into the Baker Park Campground Ravine. Pursue implementation of the identified BMPs as opportunities arise.*
6. Request from the member cities their local wellhead protection plans for use in determining vulnerable areas that should be exempted from infiltration. Develop and maintain a map showing the wellhead protection zones within the watershed boundaries.

E. PLANNING

1. When requested, assist member cities to develop their local water plans.
2. Begin to budget for the expense of writing the Fourth Generation Plan, due in 2020. Development of the Plan should begin in late 2018.

WHAT OUR CITIES HAVE BEEN DOING TO SUPPORT IMPROVED WATER QUALITY

Several Commissioners and Council members from various cities attended the NEMO Workshop on the Water, as well as the NEMO water summit.

Greenfield

The City approved a stormwater district funding mechanism which will fund their membership in the Pioneer-Sarah Creek Commission as well as water projects within the city.

The Dance Hall Creek subwatershed assessment was completed.

Engineering drafts were completed for the Lake Sarah Outlet, including floating dock structures to redirect the bogs that plug the weir.

The City ordered new AIS signs for the public access at Lake Sarah reminding users to clean/drain/dry.

Greenfield's Central Park pond has the potential to be a great educational source for visitors if cost-effective signs can be installed. The City is pursuing grants for interpretive signage.

Independence

The city sought opportunities with willing landowners to install raingardens, buffer strips, and various

BMP's. Various engineering and/or feasibility studies were completed around these, and some were deemed not cost-effective, while others are still being explored for potential BMP's.

A new cluster development was approved by the city that required the developer to incorporate several previously-identified BMPs from the Independence Subwatershed Assessment into the project, as well as require future BMPs in the outlet areas, especially the area adjacent to Koch's Creek.

Completed the third successful year of "whole lake" curlyleaf pondweed treatments in Lake Sarah. The Lake Sarah Improvement Association performed the application process safely and effectively with volunteers.

The Lake Independence Outlet Weir was replaced with a white oak and steel piece installed by volunteers, which saved several thousand dollars vs third party bids.

LICA treated 10 acres of Lake Independence for Curlyleaf pondweed at a cost of \$5,300.

The City is committing \$15,000 to \$20,000 per year for water quality improvement projects.

Maple Plain

Commissioner DeLuca reported that the Northwest League may be interested in hearing speakers discuss water quality issues.

The Main Street and Rainbow project has improved the water runoff issues experienced in 2014.

Medina

The Ardmore subwatershed assessment was expected to be completed by the end of 2015.

The Ardmore retrofit project is underway. The pond has been installed and curb installation and street surfacing will be completed before year-end.

Roads in the Independence Beach neighborhood will be repaved with the tilt of the road changed to hold back water rather than speed it to the lake.

LICA has installed 12 zebra mussel samplers around Lake Independence.

Minnetrasta

The city is completing over \$200,000 in stormwater projects in 2015.

The first wetland bank in Minnetrista is being created on an 80-acre family trust farm.



APPENDICES