



ADMINISTRATIVE OFFICE: 3235 Fernbrook Lane N • Plymouth, MN 55447
763.553.1144 • Fax: 763.553.9326

May 7, 2018

PLEASE NOTE CHANGE IN MEETING LOCATION

Representatives
Pioneer-Sarah Creek Watershed
Management Commission
Hennepin County, Minnesota

*The meeting packet for this meeting
may be found on the Commission's website:
[http://www.pioneersarahcreek.org/minutes--
meeting-packets.html](http://www.pioneersarahcreek.org/minutes--meeting-packets.html)*

Dear Representatives:

A regular meeting of the Pioneer-Sarah Creek Watershed Management Commission will be held Thursday, May 17, 2018, at 6:00 p.m., at Independence City Hall, 1920 County Road 90, Independence, MN.

A light supper will be served. **RSVPs are requested** so that the appropriate amount of food is available. At the time of your response, please let us know if you will be eating supper with us.

In order to ensure a quorum for this meeting, please telephone 763.553.1144 or email Tiffany at tiffany@jass.biz to indicate if you or your Alternate will be attending. It is your responsibility to ascertain that your community will be represented at this meeting.

The Commission will convene a **meeting of the Technical Advisory Committee (TAC)**, 5:00–5:45 p.m., prior to the regular meeting. The purpose of this meeting is complete an update to the Commission's CIP in anticipation of undergoing a Minor Plan Amendment (MPA). An MPA is required so that projects can be listed on the CIP and, therefore, be eligible for future grant funding.

Regards,

Judie A. Anderson
Administrator
JAA:tim

cc: Alternates
Jim Kujawa, Kirsten Barta, HCEE
Joel Jamnik, Attorney
Brian Vlach, TRPD

City Clerks
Met Council
official newspapers
Ed Matthiesen, Diane Spector, Wenck Assocs

MPCA
BWSR
DNR

Z:\Pioneer-SarahCreek\Meetings\Meetings 2018\April regular and TAC notice.doc



ADMINISTRATIVE OFFICE: 3235 Fernbrook Lane N • Plymouth, MN 55447
763.553.1144 • Fax: 763.553.9326 • judie@jass.biz • www.pioneersarahcreek.org

REGULAR MEETING AGENDA
May 17, 2018 • 6:00 pm
Independence City Hall
1920 County Road 90, Independence, MN

*The meeting packet can be found on the Commission's website:
<http://pioneersarahcreek.org/pages/Meetings/>*

1. Call to Order.
2. Approve Agenda.*
3. Consent Agenda.
 - a. April regular meeting minutes.*
 - b. May Monthly Claims/Treasurer's Report.*
4. Action Items.
 - a. Approve Lake Sarah CLPW JPA.*
 - b. Call for Public Meeting for June - Minor Plan Amendment.
 - c. Consider Funding for Carp Project.* *[See also 6.a.2)c) and 6.a.2)d)]*
5. Open Forum.
6. Old Business.
 - a. 2018 CIP Update.**
 - 1) Report from TAC meeting.
 - 2) New submittals.
 - a) Lake Independence Alum Treatment.*
 - b) Whaletail South Alum Treatment.*
 - c) Lake Independence Carp Study – 2018.*
 - d) Lake Independence Carp Study – 2019.*
 - b. Watershed-Based Funding Pilot update.
 - c. PRAP update.
7. New Business.
 - a. Draft 2019 Operating Budget.*
8. Staff Report.*
9. Education.
10. Communications.
 - a. Clean Water Partnership Loans.*
 - b. 2017 Annual Activity Report. *Because of technical difficulties in our office, final copies will be available at the June meeting. A paper copy of the report was sent timely to BWSR.*
11. Commissioner Reports.
12. Other Business.
13. Adjournment. *(Next scheduled meeting-June 14, 2018)*

** in meeting packet **available at meeting*



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REGULAR and TECHNICAL ADVISORY COMMITTEE MEETING MINUTES April 19, 2018

1. CALL TO ORDER. A Technical Advisory Committee (TAC) meeting of the Pioneer-Sarah Creek Watershed Management Commission was called to order at 4:09 p.m., Thursday, April 19, 2018, by James Kujawa at Maple Plain City Hall, 5050 Independence Street, Maple Plain, MN.

Present: Tom Cook, Greenfield; Joe Baker, Independence; Brenda Daniels, Loretto; Mike McLaughlin, Medina; Kaci Fischer, Hakanson Anderson for Greenfield, Independence and Medina; James Kujawa, Hennepin County Environment and Energy (HCEE); Brian Vlach, Three Rivers Park District (TRPD); Ed Matthiesen, Wenck Associates; and Judie Anderson and Amy Juntunen, JASS.

Not represented: Maple Plain and Minnetrista.

2. CIP Review. The purpose of this meeting is to review the CIP as submitted in the Third Generation Watershed Management Plan and subsequent amendments.

Several CIPs are recurring each year and are opportunity-based, such as GR-3: Hafften, Schendel, Schwauppauuff BMPs, GR-4: Feedlot Improvements Dance Hall Creek and GR-9: Buffer Strips Dance Hall Creek. Kujawa suggested grouping these together as a watershed-wide program rather than a specific city or water body as they are opportunity-based. Cook agreed. These projects will be grouped into a new, ongoing general program called Stormwater Retrofit BMPs. Staff and Commissioners will look at options for including specific projects such as the Leuer property, though it's likely that this project will require better definition and cost estimate if it does move forward, which will require another minor plan amendment. GR-3 may go under a new subcategory of *Direct Flow to Crow*.

Projects completed or in-process were identified. Potential projects similar to HR67/68 were identified, but not added to the CIP. These would also be opportunity-based projects. Timeline for new projects like these can include up to two years to complete the feasibility study and design, so there would be time to add them to the CIP through a minor plan amendment for grant purposes and no need to add at this time. Commissioners requested that a separate list of potential CIPs be created for regular review so they are not forgotten when the Commission experiences turnover in Commissioners or Staff.

Project ME-2: Lake Independence CLPW Treatment will be moved to 2021. Studies have shown that CLPW density and biomass do not require treatment at this time. The lake will continue to be monitored and assessed.

Project GR-11: Carp Control on Lake Sarah and Other Lakes will include the work occurring this year on Lake Independence and the Ardmore system. Commission and staff discussed the studies and costs necessary for carp population control. GR-11 will be moved to 2017-2020 as an ongoing project.

2016 projects IN-3 Lake Sarah CLP Treatment was completed and IN-4, and GS50 Gully Restoration (Design) is in process.

2016 project ME-4 will be replaced with five individual projects (2017 ME-1 through 5). The CIP has not yet been amended to reflect this change.

Project IN-7: Raingardens in Targeted Areas and IN-9: Shoreline Restoration Sarah and Independence will be grouped with the GR-3, GR-4, and GR-9 projects under the retrofit subcategory.

Project 2017 IN-3: Kazin Wetland Restoration was investigated but found to be infeasible and will not be included in a plan amendment.

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

*Included in meeting packet.

Project IN-6: Lake Sarah CLP Treatment will remain for 2018 and should be added to future years if the agreement is extended.

The five 2017 ME projects were not included in the minor plan amendment in 2017 and will need to be included in this amendment to qualify for grant and watershed-based funding.

Maple Plain requested that the project MP-6: South Ravine Cleanup be removed at a past meeting.

ME-5: Sediment Sampling Lake Independence is on the CIP for 2019 and IN-8: Sediment Sampling Lake Sarah is on the CIP for 2020. Sediment sampling is necessary to determine dosage for alum treatments. A plan amendment is not necessary to shift projects by 1-2 years if those projects were to be completed sooner.

IN-2: Hydrologic Restoration GS50 (Install) is now part of 2017 ME_IN-1 scheduled for 2018.

ME-6: Tomahawk Trail Wetland Project will be pushed back to 2021.

2017 IN-1 through 7 will be added to the CIP in 2018 or 2019 as part of the upcoming Minor Plan Amendment. These projects will need to be investigated further to determine feasibility and landowner cooperation.

2017 MI-1: South Whaletail Lake Alum Treatment is not on the City CIP. This project may be added to the CIP through the amendment, but should be moved to 2020 with a cost estimate of \$350,000.

3. ADJOURN TAC. The TAC meeting was adjourned at 5:53 p.m.

1. CALL TO ORDER. A regular meeting of the Pioneer-Sarah Creek Watershed Management Commission was called to order at 6:02 p.m., Thursday, April 19, 2018, by Chair Joe Baker at Maple Plain City Hall, 5050 Independence Street, Maple Plain, MN.

Present: Tom Cook, Greenfield; Joe Baker, Independence; Brenda Daniels, Loretto; Mike DeLuca, Maple Plain; Mike McLaughlin, Medina; Shannon Bruce, Minnetrista; James Kujawa, Hennepin County Environment and Energy (HCEE); Brian Vlach, Three Rivers Park District (TRPD); Steve Christopher, Dale Krystosek and Ben Carlson, Board of Water and Soil Resources (BWSR); and Judie Anderson and Amy Juntunen, JASS.

Also present: Tom Blanck, Lake Independence Citizens Association (LICA); Scott Walsh and Scott Beaupré, Lake Sarah Improvement Association (LSIA).

2. AGENDA. Motion by DeLuca, second by Daniels to approve the agenda as presented. *Motion carried unanimously.*

3. CONSENT AGENDA. Motion by Cook, second by Daniels to approve the Consent Agenda:

- a. **March Regular Meeting Minutes.***
- b. **April Monthly Claims/Treasurer's Report.*** Claims total \$3,486.24.

Motion carried unanimously.

4. ACTION ITEMS.

a. **Approve 2018 Work Plan.*** No comments were received by Staff. The following changes were made at the meeting:

Item A.3. Adopt a ~~2018~~ 2019 budget.

Item C.3. ~~Become a member of~~ Continue membership in WaterShed Partners...

Item D.4. ~~Cost-share~~ Extend agreement with the Lake Sarah Improvement Association (LSIA) to complete a round of cost-share for curlyleaf pondweed treatment in 2018.

Motion by McLaughlin, second by Bruce to approve the 2018 Work Plan with the changes noted above. *Motion carried unanimously.*

b. Accept 2017 Audit Report.* Motion by Cook, second by Daniels to accept the 2017 audit report. *Motion carried unanimously.*

c. Accept 2017 Annual Activity Report.* The report was emailed to members on April 16. Commissioners were encouraged to email activities occurring in their city for education or projects that impact water quality, as well as any proposed changes to the report, to Anderson by April 25. Anderson will incorporate any changes and confirm with the Chair prior to the April 30 deadline to submit the report to BWSR. Motion by Daniels, second by Cook to accept the 2017 Annual Activity Report pending changes submitted by April 25. *Motion carried unanimously.*

5. OPEN FORUM. Kristosek gave an overview of the Performance Review and Assistance Program (PRAP) that will be performed by BWSR in 2018. This is a Level II review and is required by the state legislature for every water management organization once every ten years. The review has four parts consisting of: 1) a performance review of mandatory and high performance standards and WCA performance standards, including items like submitting required reports on time; 2) a review of progress against the Watershed Management Plan; 3) a survey of Commissioners, Staff and Partners; 4) review of the completed PRAP report with the Commission.

BWSR staff will schedule a meeting with Commission Staff to review the items that will be required for submittal. Staff and Commission time for the PRAP process is not expected to be as lengthy as the first PRAP conducted in 2008. The report should be completed by the June 21 regular meeting and 20-30 minutes of that meeting will be spent reviewing the PRAP report.

6. OLD BUSINESS.

a. 2018 CIP Update. The TAC met prior to the regular meeting to begin reviewing the CIP. Another TAC meeting will occur prior to the May meeting at 5:00 p.m. to finish the CIP review and determine updates that may need to be included in a Plan Amendment. Staff will review the Plan Amendment Policy in the Management Plan to determine whether a major or minor plan amendment is necessary. Most likely, if the amendment only changes the CIP, it will be a minor plan amendment.

b. Watershed-based Funding Pilot Update. A third “pre-meeting” of watershed administrators was held March 30, 2018 to discuss options for allocating the Metro Area One Watershed-Based Funding Pilot Program dollars over the next few years. Juntunen was present to represent the Commission.

Hennepin County will be receiving from the Board of Water and Soil Resources (BWSR) \$1.018 million for the 2019-2020 biennium, to be expended by December 31, 2021. Hennepin County will convene the formal planning meeting to which all eligible entities will be invited on May 16, 2018 from 1:30-3:30 p.m. at the Plymouth Library, 15700 36th Ave N, Plymouth, MN 55446. All cities and watersheds will be invited to this meeting by Hennepin County. Cities are eligible to receive funding if their project is on an approved watershed CIP by July 1, 2018.

Subcommittees have met to look at different funding options, whether on a 50/50 Taxable Market Value/Area or to be funded on a major basin basis for the Minnesota, Mississippi, and Crow river basins. Pioneer-Sarah Creek’s allocation is not majorly impacted and should be receiving about \$64,000 for the biennium period since it holds most of the area for the Crow basin. Up to ten percent of the County-wide funding will likely be put toward a comprehensive regional plan to address chlorides.

The Pioneer-Sarah Creek Commissioners will need to identify a shovel-ready project(s) that could be funded under this pilot program within the biennium or lose the funds.

7. NEW BUSINESS.

a. Lake Sarah CLPW Agreement.* This agreement is an extension of the previous agreement which covered 2013-2017 whole-lake CLPW treatment. CLPW is an identified source of internal loading to Lake

Sarah. The five-year treatment has created a noticeable improvement in habitat and the native plant community, but nutrient levels have not improved. The goal of continuing treatment is to move from whole-lake treatment to spot treatment. The whole-lake treatments have resulted in a reduction of 80-90% in turions. Baker proposed moving from a 10% cost-share to a 25% cost-share for this project due to a lack of grant funds. A formal agreement will be presented to the Commission at the May meeting.

b. FY20-21 Biennial Budget Request (BBR).* Staff submitted a BBR based on the CIP for FY2020-2021 by the deadline of April 12, 2018. The BBR is used by BWSR to set a funding level request from the legislature for the biennium.

8. STAFF REPORT.*

a. Kujawa noted that a complaint of **winter manure application** was received from a citizen.

b. Vlach reported that **Lake Rebecca will be delisted** for impairments by the MPCA this year. The Baker Park Ravine Stabilization project **grant agreement has been officially executed** and Vlach will be meeting with Wenck staff next week to discuss project design, strategy and timelines. McLaughlin noted that he would be interested in meeting with staff on the project site. TRPD is **assessing biomass and population of carp on Lake Independence** this month.

9. EDUCATION.

10. COMMUNICATIONS.

a. Delano Wellhead protection intent.*

b. Metropolitan Council – 2017 update.*

11. COMMISSIONER REPORTS.

a. Baker. Hennepin County is creating a new tool for a lower-cost approach to better clean weeds from boats which will be installed on Lake Sarah. Signage is desired for this new tool.

b. Cook. The DNR approved a 12 foot wide dock for the Lake Sarah landing.

c. Bruce. A new councilmember for Minnetrista, John Tschumpelin, was sworn in this week and has been assigned as Commissioner to the watershed.

12. OTHER BUSINESS.

The **next regular meeting** is scheduled for May 17, 2018, preceded by the meeting of the TAC at 5:00 p.m.

13. ADJOURNMENT. There being no further business, motion by McLaughlin, second by DeLuca to adjourn. *Motion carried unanimously.* The meeting was adjourned at 7:48 p.m.

Respectfully submitted,



Amy A. Juntunen, Recording Secretary
AAJ:tim

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**Pioneer-Sarah Creek Watershed
Cash Disbursements Journal
For the Period From May 1, 2018 to May 31, 2018**

Filter Criteria includes: Report order is by Date. Report is printed in Detail Format.

Date	Check #	Account ID	Line Description	Debit Amount	Credit Amount
5/11/18	1496	51100	Admininstration	860.13	
		51100	Meeting-related activities	1,752.27	
		51100	Bookkeeping/Audit prep	282.71	
		51100	Annual Budget	247.28	
		51100	Annual Report	1,358.45	
		51400	Website	59.95	
		51120	Project Reviews	85.95	
		51130	WCA/Wetland	48.46	
		51125	CIPs, BBR	13.20	
		56202	Lake Sarah TMDL	5.72	
		52000	Professional TAC	1,322.55	
		10100	Judie Anderson's Secretarial Service		6,036.67
5/11/18	1497	52000	Technical Advisory Committee Assistance	640.05	
		10100	Wenck Associates, Inc.		640.05
5/11/18	1498	51210	2017 Audited Financial Statements	4,000.00	
		10100	Johnson & Company, Ltd.		4,000.00
Total				10,676.72	10,676.72

Johnson & Company, Ltd.
3255 Fernbrook Lane North
Minneapolis, MN 55447
(952) 525-9500

PIONEER-SARAH CREEK WATERSHED MANAGEMENT COMM.
3235 FERNBROOK LANE NORTH
PLYMOUTH, MN 55447

Client # : 4273

Invoice Number : 35793

Invoice Date : Tuesday, April 17, 2018

For Professional Services Rendered :

Preparation of report on audited financial statements for the year ended December 31,
2017.

4,000.00

Total Invoice Amount

\$4,000.00

Invoice

May 7, 2018

Invoice No: 11802776

Judie Anderson
 Pioneer-Sarah Watershed Management Comm.
 3235 Fernbrook Lane
 Plymouth, MN 55447



Responsive partner.
 Exceptional outcomes.

Project Manager Edward Matthiesen

Project B1508-0006 Technical Advisory Committee Assistance

Professional Services Through April 30, 2018**Professional Personnel**

	Hours	Rate	Amount	
Matthiesen, Edward	3.00	198.00	594.00	
Totals	3.00		594.00	
Total Labor				594.00

Unit Billing

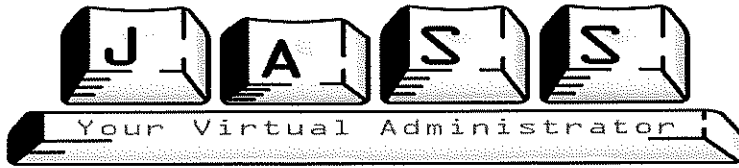
Mileage MP 2006 Corolla RGC 668				16.35
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Additional Fees

Technology Fee	5.00 % of 594.00		29.70	
Total Additional Fees			29.70	29.70

Total Invoice Amount	\$640.05
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	Current	Prior	Total
Billing Summary	640.05	696.29	1,336.34



Pioneer-Sarah Creek Watershed Management Commission
3235 Fernbrook Lane Plymouth, MN 55447

3235 Fernbrook Lane
Plymouth MN 55447

May 11, 2018

Total Project Area

General Administration					
Administrative	0.34	55.00	18.700		
Administrative	6.59	60.00	395.400		
PRAP	2.47	60.00	148.200		
Office Support	3.00	60.00	180.000		
Public storage	1.00	77.08	77.080		
Reimbursable Expense	40.75	1.00	40.750	860.130	Administration
Meeting packets, attendance, Minutes and Meeting follow-up					
Administrative	0.83	55.00	45.650		
Administrative	23.32	60.00	1,399.200		
Admin - Offsite	2.75	65.00	178.750		
Reimbursable Expense	128.67	1.00	128.670	1,752.270	Meeting related activitie
Bookkeeping					
Bookkeeping, budget, audit requests	1.00	60.00	60.000		
Treasurer's Reports	1.25	60.00	75.000		
Audit Prep	1.25	60.00	75.000		
Reimbursable Expense	72.71	1.00	72.710	282.710	Bookkeeping/TRs Audit Prep
Annual Budget					
Administrative	4.07	60.00	244.200		
Reimbursable Expense	3.08	1.00	3.080	247.280	Annual Budget/ Work Plans
Annual Report/Work Plans					
Administrative	20.34	60.00	1,220.400		
Reimbursable Expense	138.05	1.00	138.050	1,358.45	Annual Report
Website					
Pages, links, uploads	1.09	55.00	59.950		
Administrative		60.00	0.000	59.950	Website
Project Reviews					
Administrative	1.27	60.00	76.200		
Reimbursable Expense	9.75	1.00	9.750	85.950	Project Reviews
WCA/Wetland Projects					
Administrative	0.58	60.00	34.800		
Reimbursable Expense	13.66	1.00	13.660	48.460	WCA/Wetland
CIPs, BBR - General Administration					
Administrative		60.00	0.00		
Reimbursable Expense	13.20	1.00	13.200	13.200	CIPs, BBR
Lake Sarah TMDL					
Administrative		60.00	0.000		
Reimbursable Expense	5.72	1.00	5.720	5.720	Lake Sarah TMDL
Professional TAC					
Secretarial	1.00	50.00	50.000		
Administrative	15.29	60.00	917.400		
Offsite	3.25	65.00	211.250		
Reimbursable Expense	143.90	1.00	143.900	1,322.550	
			6,036.670	6,036.670	

Reference No. 1

**COOPERATIVE WATER RESOURCES MANAGEMENT PROJECT
JOINT POWERS AGREEMENT
BETWEEN
Three Rivers Park District
AND
Pioneer-Sarah Creek Watershed Management Commission**

1. **PARTIES**

Pioneer-Sarah Creek Watershed Management Commission (hereinafter referred to as “the Commission”) and the Three Rivers Park District (hereinafter referred to as “the Park District”), both being governmental units of the State of Minnesota, and acting through their respective governing bodies, hereby enter into this Joint Powers Agreement (“agreement”). The Commission and the Park District from time to time may be referred to hereinafter as “the parties.”

2. **PURPOSE**

The Park District and the Commission recognize that intergovernmental cooperation in preventing degradation of aquatic resources, assessing the quality of Lake Sarah in the Pioneer-Sarah Creek Watershed, and implementing the Lake Sarah TMDL plan is in the mutual interest of the citizens of Hennepin County and the metropolitan area. The parties enter into this Agreement to facilitate the improvement of Lake Sarah water quality through the implementation of the Lake Sarah TMDL, and to assess the quality of the lake as implementation proceeds.

3. **AUTHORITY**

The parties enter into this agreement pursuant to Minn. Stat. § 471.59, regarding joint exercise of powers which allows two or more governmental units, by agreement entered into through action of their governing bodies, to jointly or cooperatively exercise any power common to the contracting parties or any similar powers, including those which are the same except for the territorial limits within which they may be exercised.

4. **DUTIES OF THE PARK DISTRICT**

In recognition of the staff resources and capabilities of the Park District, the Park District will be responsible for:

- a. Completion of Curly-leaf Pondweed turion surveys in Lake Sarah during the five year control program.
- b. Completion of annual aquatic plant surveys in Lake Sarah to monitor the response of native macrophytes to the CLP control program.

- c. Under contract with the Commission, completion of annual water quality monitoring to determine the effectiveness of the CLPW control program in reducing phosphorus loading to the lake.
- d. Participation in a project advisory capacity to guide the project implementation and review project results.
- e. Adhering to a Performance Criteria that ensures that all work meets the requirements of the Minnesota Department of Natural Resources approved Lake Vegetation Management Plan (LVMP) and the Minnesota Pollution Control Agency approved TMDL Plan and that all data conforms to the MPCA QC/QC sampling collection and analytical protocol.
- f. Providing cost-share funding to support the curly-leaf pondweed control project in an amount of 16.5% of total project costs, not to exceed \$8,650 annually. Reimbursement shall be upon an invoice submitted by the Pioneer Sarah Creek Watershed Management Commission.

5. DUTIES OF THE COMMISSION

In recognition of the staff resources and capabilities of the Pioneer Sarah Creek Watershed Management Commission, the Commission will be responsible for:

- a. Coordinating with the Lake Sarah Improvement Association to develop and implement a curly-leaf pondweed control strategy for Lake Sarah, as per the approved Lake Sarah TMDL implementation plan.
- b. Coordinating with the Lake Sarah Improvement Association to ensure compliance with monitoring and evaluation requirements outlined in MDNR's approved Lake Vegetation Management Plan for Lake Sarah, which is aimed at documenting the effectiveness of the project in controlling CLP, enhancing the growth of native macrophytes, and improving the water quality of Lake Sarah.
- c. Coordinating with the Lake Sarah Improvement Association to secure the additional funding necessary to implement the MDNR approved Lake Vegetation Management Plan for Lake Sarah.
- d. The Commission shall be responsible for providing cost-share funding to support the Lake Sarah curly-leaf pondweed control project in an amount of 25%, not to exceed \$8,000 annually of total project costs less any CLP grants (if applicable) consistent with its approved cost-share policy at the time of approval of this agreement. Reimbursement shall be made upon receipt of an invoice submitted by the Lake Sarah Improvement Association including detailed support of project costs.

6. AMENDMENT

Any amendment to this agreement must be in writing and approved by the Commission and the Park District. The parties shall have full power to amend this agreement to add or delete items from the scope of this agreement upon such terms as are agreed to between the parties.

7. TERMINATION

This agreement will terminate upon completion of the five year Lake Sarah Curly-leaf Pondweed Control Project. Notwithstanding, either party may terminate this Agreement for any reason by providing 90 days written notice to the other party. In the event of termination, the Park District will pay pro rata for that portion of the Curl-leaf Pondweed Control Project completed in accordance with Section 5.

IN WITNESS WHEREOF, the parties have caused this joint powers agreement executed and effective as of the date of signature of the last party to the agreement.

(Pioneer-Sarah Creek Watershed Management
Commission)

Dated: May 17, 2018

Joe Baker, chair

Judie A. Anderson, Exec. Secretary

THREE RIVERS PARK DISTRICT

Dated: May 17, 2018

John Gunyou, Chair

Boe Carlson, Superintendent



Proposal: Estimating the abundance of carp in Lake Independence and monitoring of carp movement using PIT antenna systems

Prepared for the Three Rivers Park District
Attn.: Brian Vlach

Prepared by: Carp Solutions LLC
Jordan Wein
April 30, 2018
www.carpsolutionsmn.com

Preface:

We propose a project encompassing one year from April 2018-March 2019. A carp biomass assessment will be conducted on Lake Independence using electrofishing surveys. We will also implant passive integrated transponder (PIT) tags into live carp and release them. We will then install three PIT antennas designed to detect if a fish with a PIT tag moves over it. We will place these antennas in locations suspected to be avenues of passage out of Lake Independence. The results of this study will provide vital information about how to curb recruitment into Lake Independence by locating high priority spots for fish barriers if needed. Limiting recruitment of carp may be the most important aspect to controlling carp in the Lake Independence watershed. This project would have a **not to exceed budget of \$20,255.**

Background:

Although carp in peripheral lakes of Lake Independence have been studied (Ardmore, Spurzem, Half Moon, Thomas and Winterhalter in 2015 as well as extensive work through 2017 in Ardmore), little is known about the carp population in Lake Independence. Lake Independence is a large lake (830 acres) with connected by flowing streams to the other peripheral lakes mentioned above (Figure 1). Observations from residents and Three Rivers Park District staff noted aggregations of carp around inlets to and outlets (like culverts) from Lake Independence. It is unknown the proportion of the Lake Independence population those aggregations represent or how passages through those creeks and streams compare. The peripheral lakes likely serve at times as nursery habitats, with adult carp using the creeks and streams to gain access to these areas to spawn in the spring. Furthermore, winterkills have been noted on these peripheral lakes making them likely sources of strong year classes of carp recruitment. A better understanding of the movement patterns will help to manage the waterways the carp intend to take for spawning with barriers. By blocking these spawning migrations, all lakes in the subwatershed will benefit from a long-lasting drop in carp recruitment rates. Once recruitment is held in check, then removals of carp from the lakes will have a more permanent impact.

Population assessments conducted in Ardmore Lake in 2016 showed that common carp in that system exceeded the biomass threshold for ecological damage (100 kg/ha) by approximately 2 fold. These surveys suggested that approximately 500 carp or more need to be removed from the system to restore aquatic macrophytes and improve water quality. However, the movement of radiotagged carp out of Ardmore Lake that occurred in the summer of 2016 suggested that this population is not as confined to Ardmore Lake as previously thought and that fluctuations in carp abundance likely occur as a result of emigration and immigration. However, quantifying that movement has not previously been suggested.

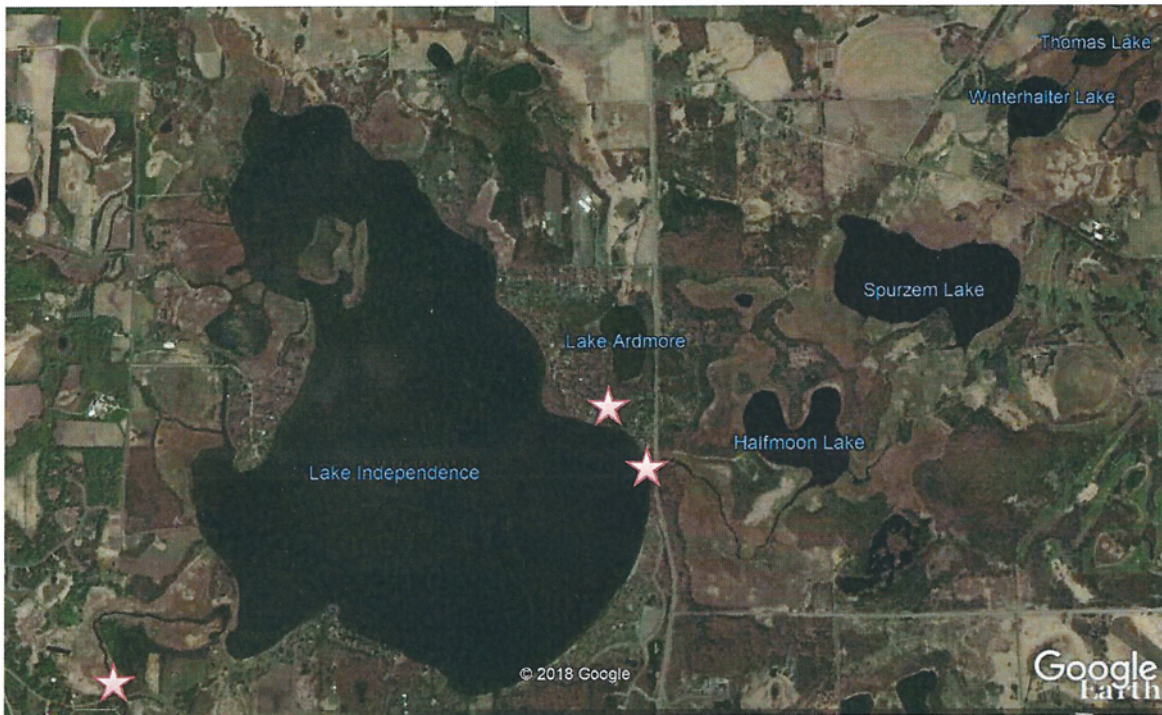


Figure 1: Lake Independence and some of the peripheral lakes that are connected to it at least periodically allowing for open fish passage.

Task 1: Carp population and biomass estimate within Lake Independence

Carp Solutions will first produce a population and biomass estimate for Lake Independence. We will use boat electrofishing surveys to evaluate our catch per unit effort (CPUE) estimate of the abundance and biomass of carp (Bajer et al. 2012; Claus et al. unpublished) as well as capturing carp to implant the PIT tags (Task 2 below). To derive an accurate estimate, we will conduct at least 5 random surveys (transects) on 5 different days. Each transect will last 60 minutes (10 minutes of boat travel to transect location, 20 minutes of active electrofishing, 20 minutes of boat maneuvering, and 10 minutes to measure the carp). It is important that these transects are conducted on separate days as carp catch rates might be influenced by the weather. At the completion of each transect, all captured carp will be implanted with a PIT tag and released.

Budget: \$9,481

Carp Solutions cost:

- Electrofishing surveys for CPUE: 5 1-hour transects/day X 5 days X \$240/hour = \$6,000
- Implanting PIT tags: 1.5 hour/day X 5 days X \$140/hour = \$1,050
- 500 HDX PIT tags: \$2/tag X 500 = \$1,000
- Boat setup and cleanup: 1 hour/day X 3 days X \$140/hour = \$700
- Travel time: 1.5 hours/trips X 5 trips = \$525
- Mileage: 5 trips X 75 miles/trip X \$0.55/mile = \$206

Task 2a: Construction and installation of PIT antenna system

An antenna system capable of detecting carp implanted with microtransmitters PIT tags (~ 12 mm in length, 3 mm in diameter) will be positioned around the culvert in three locations: within Ardmore Creek, at the culvert leading under Highway 19, and at the culvert at Pagenkopf Avenue near the southwest outlet of Independence (see map below) in order to monitor carp passage between the lakes. Specifically, two antennas will be installed at each location to confirm direction the carp was passing the antenna. We will use those antennas to determine if a future barrier is needed to block the movement of carp. Up to 500 carp will be captured and implanted with PIT tags to monitor a large sample size.

Budget: \$2,514

Carp Solutions cost:

- Building and installation of PIT sytems: 5 hours/system X 3 systems X \$140/hr = \$2,100
- Travel time: 1.5 hours/trips X 3 trips = \$315
- Mileage: 3 trips X 60 miles/trip X \$0.55/mile = \$99





Task 2b: Maintenance and monitoring of PIT systems

Three Rivers staff will be responsible for visiting each of the 3 PIT systems to replace batteries with charged ones, test the solar panels, clean the antennas, and test the read range of each antenna. In addition, the data can be downloaded easily to have up to date information of carp movements and be further analyzed. Carp have been seen to move in small numbers late into the fall and start moving again in late winter at times. Hence, the antennas will be continuously monitoring the streams. They will be left in place in the Pagenkopf location to monitor throughout the winter to be sure that they are ready to run immediately after ice out in 2019. We will, however, remove the Highway 19 and Ardmore Creek locations during December and January since flow is negligible.

Budget: **\$7,300**

Task 3: Data analysis and report preparation:

We will analyze the data and submit it as a report showing the movement of PIT tagged carp in the three monitored creeks as well as the population and biomass estimate for Lake Independence. The report will include recommendations for the future in Lake Independence and its watershed.

Budget: **\$960**

- Data analysis and report preparations: 8 hours X \$120/hour = \$960

Overall budget not to exceed = \$20,255

Independence estimate and 3 PIT antennas		Units needed	Rate/unit	Line item total cost
Task 1	CPUE survey (5 transects X 5 days)	25	\$240.00	\$6,000
	Implanting PIT tags (90 minutes/day)	7.5	\$140.00	\$1,050
	HDX PIT tags (\$2 each)	500	\$2.00	\$1,000
	Boat setup and cleaning (1 hour/day)	5	\$140.00	\$700
	Round trip travel time (1.5 hrs/trip)	7.5	\$70.00	\$525
	Mileage (5 trips X 75 miles per round trip)	375	\$0.55	\$206
Task 2a	Building and installation of PIT system	15	\$140.00	\$2,100
	Round trip travel time (1.5 hrs/trip)	4.5	\$70.00	\$315
	Mileage (3 trips X 60 miles per round trip)	180	\$0.55	\$99
Task 2b	Monthly Rental of PIT system equipment (Year 1)	10	\$730.00	\$7,300
Task 3	Data analysis and report prep	8	\$120.00	\$960
			Grand total	\$20,255

Schedule of work	2018											
	January	February	March	April	May	June	July	August	September	October	November	December
PIT antenna construction and installation												
CPUE survey and PIT tag implants												
Data analysis and Reporting												

Schedule of work	2019											
	January	February	March	April	May	June	July	August	September	October	November	December
PIT antenna construction and installation												
CPUE survey and PIT tag implants												
Data analysis and Reporting												

Our rates:

Ph.D. level (Bajer) \$120/hour

M.S. level (Wein and Claus) \$ 90/hour

Technicians rate \$50/hour

Time traveling = 50% of hourly rates using shortest Google Maps time

Mileage: We charge the 2018 IRS mileage rate of \$0.545 per mile.

Key Personnel Bio



Przemek Bajer Ph.D.— Owner: As a faculty member at the University of Minnesota, he has been at the forefront of common carp research and management since 2006. Many of the most referenced scientific publications on carp management in North America have been authored by Dr. Bajer. He has a PhD in fisheries Sciences and is experienced in many aspects of carp management, biology and ecology. He will oversee the entire project, particularly data synthesis, carp ageing, and management recommendations.



Jordan Wein, M.S.—Project manager: He has managed all projects for Carp Solutions since June 2015. He has worked previously on closely related projects from 2008-2010 and has a M.S. in Ecology, Evolution and Behavior. His communication and education-based focus establishes lasting relationships with clients and residents on all projects. He will manage all field operations, data collection, and logistics of Carp Solutions staff.



Aaron Claus M.Sc.— Lead Fish Biologist: Previously studying chemical ecology of Bigheaded carps during his graduate academic career, he has broad interests in fish biology, behavior, and management. Starting work for Carp Solutions in 2016, he is an experienced and efficient field operator.

He will conduct field work with seasonal technicians, analyze collected data, and prepare reports.

EXHIBIT A
Pioneer-Sarah Creek Watershed Management Commission

Item 06a2)a)

Capital Improvement Project Submittal

*(This submittal will be rated on its completeness and adherence to the goals of the Commission.
A second page may be used to provide complete responses.)*

City	Independence, Medina, and Loretto	
Contact Name	Brian Vlach	
Telephone	763-694-7846	
Email	Brian.Vlach@threeriversparks.org	
Address	12615 Rockford Road, Plymouth, MN 55441	
Project Name	Lake Independence Alum Treatment	
	1. Is project in Member's CIP? () yes (x) no	Proposed CIP Year = 2023
	2. Has a feasibility study or an engineering report (circle one) been done for this project? (X) yes () no	
		Amount
	Total Estimated Project Cost	\$1,390,468
	Estimated Commission Share (up to 25%, not to exceed \$250,000)	\$250,000
	Other Funding Sources (Grant dollars)	\$600,000
	Other Partners	\$540,468
	4. What is the purpose of the project? What water resource(s) will be impacted by the project? The purpose of the project is to significantly reduce the sediment phosphorus release during anoxic conditions through the application of aluminum sulfate in Lake Independence. The reduction of phosphorus internal loading in Lake Independence will significantly improve the in-lake water quality conditions. The control of internal load in Lake Independence is necessary to achieve the MPCA in-lake water quality standards.	
	5. What is the anticipated improvement that would result from the project? (Include size of area treated and projected nutrient reduction.) Aluminum sulfate will be applied to approximately 352 acres of Lake Independence at a depth of greater than 20 feet. The alum will be applied in two different treatments at a dosage of 50 g Al/m ² for a total lake alum dosage of 100 g Al/m ² . The alum treatment will reduce the internal phosphorus loading by approximately 2743 pounds. The internal loading reduction will be necessary in order for Lake Independence to achieve the MPCA water quality standards.	
	6. How does the project contribute to achieving the goals and programs of the Commission? Lake Independence is considered a Sentinel Lake in the Pioneer and Sarah Creek Watershed Management Commission 3 rd Generation Plan, and was placed on the MPCA impaired water's list in 2002 for excessive nutrients. A TMDL study was completed in 2007 that identified watershed and in-lake sources of loading that significantly impacts the water quality of Lake Independence. The TMDL study identified internal loading as a significant portion of the total loading that impacts water quality conditions. The TMDL and implementation plan indicated that internal loading would need to be controlled in order to achieve the MPCA state water quality standards. The alum treatment would reduce the phosphorus internal load approximately 2743 pounds in order to achieve the MPCA water quality standards.	
0/10	7. Does the project result from a regulatory mandate? (X) yes () no How? Lake Independence was listed as impaired under Section 303(d) of the Clean Water Act.	
0/10/20	8. Does the project address one or more TMDL requirements? (X) yes () no Which? The aluminum sulfate application will significantly reduce the portion of the phosphorus internal loading that was identified in the Lake Independence TMDL.	
0/10/20	9. Does the project have an educational component? (X) yes () no Describe. The south shoreline of Lake Independence is within Baker Park Reserve and contains two public swimming beaches, a campground, a fishing pier, numerous picnic areas, and a boat launch. The significant recreational use that Lake Independence receives on annual basis provides an opportunity to educate the general public about water quality issues. The improvements in water quality would also become a destination for many educational and recreational programs/opportunities that Three Rivers Park District provides.	
0/10	10. Do all the LGUs responsible for sharing in the cost of the project agree to go forward with this project? (X) yes () no Identify the LGUs. City of Independence, City of Medina, City of Loretto	
10/20	11. Is the project in all the LGUs' CIPs? () yes (X) no Not at this point	
1-34	(For TAC use) 12. Does project improve water quality? (0-10) 13. Prevent or correct erosion? (0-10) 14. Prevent flooding? (0-5)	15. Promote groundwater recharge? (0-3) 16. Protect and enhance fish and wildlife habitat? (0-3) 17. Improve or create water recreation facilities? (0-3)
TOTAL (poss 114)		

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Pioneer-Sarah Creek Watershed Management Commission
Capital Improvement Project Submittal

*(This submittal will be rated on its completeness and adherence to the goals of the Commission.
A second page may be used to provide complete responses.)*

City	Minnetrista	
Contact Name	Brian Vlach	
Telephone	763-694-7846	
Email	Brian.Vlach@threeriversparks.org	
Address	12615 Rockford Road, Plymouth, MN 55441	
Project Name	Whaletail South Alum Treatment	
	1. Is project in Member's CIP? () yes (x) no	Proposed CIP Year = 2020
	2. Has a feasibility study or an engineering report (circle one) been done for this project? (X) yes () no	
		Amount
	Total Estimated Project Cost	\$300,646
	Estimated Commission Share (up to 25%, not to exceed \$250,000)	\$75,162
	Other Funding Sources (Grant dollars)	\$200,000
	Other Partners	\$25,484
	4. What is the purpose of the project? What water resource(s) will be impacted by the project? The purpose of the project is to significantly reduce the sediment phosphorus release during anoxic conditions through the application of aluminum sulfate in South Whaletail Lake. The reduction of phosphorus internal loading in South Whaletail Lake will significantly improve the in-lake water quality conditions. The control of internal load in South Whaletail Lake is necessary to achieve the MPCA in-lake water quality standards.	
	5. What is the anticipated improvement that would result from the project? (Include size of area treated and projected nutrient reduction.) Aluminum sulfate will be applied to approximately 64 acres of South Whaletail Lake at a depth of greater than 13 feet. The alum will be applied in two different treatments at a dosage of 50 g Al/m ² for a total lake alum dosage of 100 g Al/m ² . The alum treatment will reduce the internal phosphorus loading by approximately 380 pounds. The internal loading reduction will be necessary in order for South Whaletail Lake to achieve the MPCA water quality standards.	
	6. How does the project contribute to achieving the goals and programs of the Commission? South Whaletail Lake is considered a Sentinel Lake in the Pioneer and Sarah Creek Watershed Management Commission 3 rd Generation Plan, and was placed on the MPCA impaired water's list in 2006 for excessive nutrients. A TMDL study was completed in 2017 that identified watershed and in-lake sources of loading that significantly impacts the water quality of South Whaletail Lake. The TMDL study identified internal loading as a significant portion of the total loading that impacts water quality conditions. The TMDL indicated that internal loading would need to be controlled in order to achieve the MPCA state water quality standards. The alum treatment would reduce the phosphorus internal load approximately 380 pounds in order to achieve the MPCA water quality standards.	
0/10	7. Does the project result from a regulatory mandate? (X) yes () no How? South Whaletail Lake was listed as impaired under Section 303(d) of the Clean Water Act.	
0/10/20	8. Does the project address one or more TMDL requirements? (X) yes () no Which? The aluminum sulfate application will significantly reduce the portion of the phosphorus internal loading that was identified in the South Whaletail TMDL.	
0/10/20	9. Does the project have an educational component? (X) yes () no Describe. The east shoreline of South Whaletail Lake occupies the shoreline of the Gale Woods Farm. The educational programs that Gale Woods Farm receives on annual basis provides an opportunity to educate the general public about water quality issues. The improvements in water quality would also become a destination for many educational and recreational programs/opportunities that Three Rivers Park District provides.	
0/10	10. Do all the LGUs responsible for sharing in the cost of the project agree to go forward with this project? (X) yes () no Identify the LGUs. City of Minnetrista	
10/20	11. Is the project in all the LGUs' CIPs? () yes (X) no Not at this point	
1-34	(For TAC use) 12. Does project improve water quality? (0-10) 13. Prevent or correct erosion? (0-10) 14. Prevent flooding? (0-5)	15. Promote groundwater recharge? (0-3) 16. Protect and enhance fish and wildlife habitat? (0-3) 17. Improve or create water recreation facilities? (0-3)

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TOTAL (poss 114)	
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EXHIBIT A

Pioneer-Sarah Creek Watershed Management Commission**Capital Improvement Project Submittal**

*(This submittal will be rated on its completeness and adherence to the goals of the Commission.
A second page may be used to provide complete responses.)*

City	Three Rivers Park District	
Contact Name	Brian Vlach	
Telephone	763-694-7846	
Email	Brian.Vlach@ThreeRiversParks.org	
Address	12615 Rockford Road, Plymouth, MN 55441	
Project Name	Lake Independence Carp Study	
	1. Is project in Member's CIP? () yes (X) no	Proposed CIP Year = 2018
	2. Has a feasibility study or an engineering report (circle one) been done for this project? (X) yes () no	
		Amount
	Total Estimated Project Cost	\$20,000
	Estimated Commission Share (up to 25%, not to exceed \$250,000)	\$5,000
	Other Funding Sources (name them)	\$
	Three Rivers Park District	\$15,000
	3. What is the scope of the project? The scope of the project is to: (1) Assess the population and biomass of carp in Lake Independence, (2) Better understand the movement patterns of carp within the Lake Independence (3) Manage the waterways the carp intend to take for spawning by implementing carp barriers (4) Removal of carp below the ecological threshold of 100 kg/ha.	
	4. What is the purpose of the project? What water resource(s) will be impacted by the project? The purpose of the project is to conduct a population and biomass assessment of carp as well as to assess carp movement patterns within Lake Independence. Previous population assessments conducted in Ardmore Lake in 2016 showed that carp in that system exceeded the biomass threshold for ecological damage (100 kg/ha), and telemetry studies further indicated movement of these fish between the Ardmore and Lake Independence system. The biomass and movement patterns of carp in Lake Independence is currently unknown. This study would be able to better quantify whether the biomass and movement patterns of carp in Lake Independence is at a critical threshold to cause ecological damage to Lake Independence as well as other lakes that carp may use for spawning habitat. This project would be considered phase I of a series of projects that would eventually result in the removal of carp from the Independence system and the installation of carp barriers to keep fish from moving back into the system.	
	5. What is the anticipated improvement that would result from the project? (Include size of area treated and projected nutrient reduction.) Studies have indicated that carp populations that have a biomass of greater than 100 kg/ha have the potential for ecological damage. Carp have the ability to root-up vegetation as well as re-suspend sediment material, which can result in an increase in internal loading processes. Lake systems that have significant population of carp often have degraded water quality conditions due to the absence of a healthy aquatic plant community. Recent studies have indicated that the removal of carp to below the threshold limits that causes ecological damage have resulted in water quality improvements as well as improvements in the aquatic plant community.	
	6. How does the project contribute to achieving the goals and programs of the Commission? The TMDL study for Lake Independence (2007) has identified internal loading as a significant factor impacting water quality conditions that needs to be controlled in order for the lake to achieve the state water quality standards. If this study determines that the carp biomass is greater than the 100 kg/ha threshold, then carp should be considered a potential source of internal loading that needs to be controlled. In addition, a future alum for Lake Independence has been proposed to directly control the sediment phosphorus release from internal loading. The control of carp would also benefit and increase the efficiency/longevity of a future alum treatment.	
0/10	7. Does the project result from a regulatory mandate? (x) yes () no How? The MPCA has designated Lake Independence as impaired for excessive nutrients under section 303(d) of the Clean Water Act in 2002.	
0/10/20	8. Does the project address one or more TMDL requirements? (X) yes () no Which? Lake Independence TMDL in 2007 and Pioneer and Sarah Creek TMDL in 2017.	

0/10/20	9. Does the project have an educational component? (X) yes () no Describe. The Three Rivers Park District Baker Park Reserve receives a considerable amount of recreational activity due to a public boat access, fishing pier, two swimming beaches, and public campground. Three Rivers Park District also frequently provides outdoor recreation/educational programs at Lake Independence. The lake is a primary destination for water-related recreational opportunities in the west metropolitan area. The project provides an opportunity to further educate the public about the various water quality issues in Lake Independence.	
0/10	10. Do all the LGUs responsible for sharing in the cost of the project agree to go forward with this project? () yes (X) no Identify the LGUs. Not at this time	
10/20	11. Is the project in all the LGUs' CIPs? () yes (X) no Not at this time	
1-34	(For TAC use) 12. Does project improve water quality? (0-10) 13. Prevent or correct erosion? (0-10) 14. Prevent flooding? (0-5)	15. Promote groundwater recharge? (0-3) 16. Protect and enhance fish and wildlife habitat? (0-3) 17. Improve or create water recreation facilities? (0-3)
TOTAL (poss 114)		

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Pioneer-Sarah Creek Watershed Management Commission
Capital Improvement Project Submittal

*(This submittal will be rated on its completeness and adherence to the goals of the Commission.
A second page may be used to provide complete responses.)*

City	Three Rivers Park District	
Contact Name	Brian Vlach	
Telephone	763-694-7846	
Email	Brian.Vlach@ThreeRiversParks.org	
Address	12615 Rockford Road, Plymouth, MN 55441	
Project Name	Lake Independence Carp Study	
	1. Is project in Member's CIP? () yes (X) no	Proposed CIP Year = 2019
	2. Has a feasibility study or an engineering report (circle one) been done for this project? (X) yes () no	
		Amount
	Total Estimated Project Cost	\$20,000
	Estimated Commission Share (up to 25%, not to exceed \$250,000)	\$5,000
	Other Funding Sources (name them)	\$
	Three Rivers Park District	\$15,000
	3. What is the scope of the project? The scope of the project is to: (1) Assess the population and biomass of carp in Lake Independence, (2) Better understand the movement patterns of carp within the Lake Independence (3) Manage the waterways the carp intend to take for spawning by implementing carp barriers (4) Removal of carp below the ecological threshold of 100 kg/ha.	
	4. What is the purpose of the project? What water resource(s) will be impacted by the project? The purpose of the project is to conduct a population and biomass assessment of carp as well as to assess carp movement patterns within Lake Independence. Previous population assessments conducted in Ardmore Lake in 2016 showed that carp in that system exceeded the biomass threshold for ecological damage (100 kg/ha), and telemetry studies further indicated movement of these fish between the Ardmore and Lake Independence system. The biomass and movement patterns of carp in Lake Independence is currently unknown. This study would be able to better quantify whether the biomass and movement patterns of carp in Lake Independence is at a critical threshold to cause ecological damage to Lake Independence as well as other lakes that carp may use for spawning habitat. This project would be considered phase II of a series of projects that would eventually result in the removal of carp from the Independence system and the installation of carp barriers to keep fish from moving back into the system.	
	5. What is the anticipated improvement that would result from the project? (Include size of area treated and projected nutrient reduction.) Studies have indicated that carp populations that have a biomass of greater than 100 kg/ha have the potential for ecological damage. Carp have the ability to root-up vegetation as well as re-suspend sediment material, which can result in an increase in internal loading processes. Lake systems that have significant population of carp often have degraded water quality conditions due to the absence of a healthy aquatic plant community. Recent studies have indicated that the removal of carp to below the threshold limits that causes ecological damage have resulted in water quality improvements as well as improvements in the aquatic plant community.	
	6. How does the project contribute to achieving the goals and programs of the Commission? The TMDL study for Lake Independence (2007) has identified internal loading as a significant factor impacting water quality conditions that needs to be controlled in order for the lake to achieve the state water quality standards. If this study determines that the carp biomass is greater than the 100 kg/ha threshold, then carp should be considered a potential source of internal loading that needs to be controlled. In addition, a future alum for Lake Independence has been proposed to directly control the sediment phosphorus release from internal loading. The control of carp would also benefit and increase the efficiency/longevity of a future alum treatment.	
0/10	7. Does the project result from a regulatory mandate? (x) yes () no How? The MPCA has designated Lake Independence as impaired for excessive nutrients under section 303(d) of the Clean Water Act in 2002.	
0/10/20	8. Does the project address one or more TMDL requirements? (X) yes () no Which? Lake Independence TMDL in 2007 and Pioneer and Sarah Creek TMDL in 2017.	
0/10/20	9. Does the project have an educational component? (X) yes () no Describe. The Three Rivers Park District Baker Park Reserve receives a considerable amount of recreational activity due to a public boat access, fishing pier, two swimming beaches, and public campground. Three Rivers Park District also frequently provides outdoor recreation/educational programs at Lake Independence. The lake is a primary	

	destination for water-related recreational opportunities in the west metropolitan area. The project provides an opportunity to further educate the public about the various water quality issues in Lake Independence.	
0/10	10. Do all the LGUs responsible for sharing in the cost of the project agree to go forward with this project? () yes (X) no Identify the LGUs. Not at this time	
10/20	11. Is the project in all the LGUs' CIPs? () yes (X) no Not at this time	
1-34	<i>(For TAC use)</i> 12. Does project improve water quality? (0-10) 13. Prevent or correct erosion? (0-10) 14. Prevent flooding? (0-5)	15. Promote groundwater recharge? (0-3) 16. Protect and enhance fish and wildlife habitat? (0-3) 17. Improve or create water recreation facilities? (0-3)
TOTAL (poss 114)		

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Pioneer-Sarah Creek Watershed
Income Statement
Compared with Budget
For the Twelve Months Ending December 31, 2017

Item 07a-1

	Year to Date Actual 2017	Year to Date Budget 2017	Year to Date Variance 2017	2018 Budget	Draft 2019 Budget
Revenues					
Member Dues	\$ 105,700.00	\$ 105,700.00	0.00	\$ 100,000.00	\$ 100,000.00
Project Review Fees	3,150.00	5,000.00	(1,850.00)	5,000.00	4,000.00
CIP Income	28,000.00	28,000.00	0.00	28,000.00	28,000.00
WRAPP Income	10,593.01	0.00	10,593.01		
WCA Escrow Earned	8,566.44	0.00	8,566.44		
WCA Adm Fees	850.00	500.00	350.00	500.00	500.00
Interest and Dividend Income	2,034.11	41.00	1,993.11	270.00	1,570.00
Total Revenues	158,893.56	139,241.00	19,652.56	133,770.00	134,070.00
Expenses					
Engineering/Consulting	15,636.85	23,000.00	7,363.15	23,600.00	24,190.00
Administrative Expense	32,082.35	36,000.00	3,917.65	36,000.00	36,000.00
Adm-Project Reviews	552.18	1,000.00	447.82	1,000.00	750.00
Adm-CIP Mgmt	1,575.70	0.00	(1,575.70)	0.00	3,000.00
WCA - Admin/Legal Expenses	160.06	500.00	339.94	500.00	300.00
Adm - Tech Support	454.64	750.00	295.36	750.00	550.00
Legal Expense	106.46	500.00	393.54	500.00	500.00
Audit Expense	4,000.00	4,080.00	80.00	4,150.00	4,500.00
Insurance	2,982.00	3,370.00	388.00	3,500.00	3,500.00
Website	1,103.40	2,240.00	1,136.60	2,240.00	1,800.00
Adm - General Programs	0.00	500.00	500.00	500.00	500.00
TAC Meetings	696.29	4,000.00	3,303.71	4,000.00	3,000.00
Lakes Monitoring - TRPD	3,700.00	3,703.00	3.00	5,180.00	8,100.00
Lakes Monitoring - CAMP	550.00	576.00	26.00	550.00	760.00
Stream Monitoring	6,120.00	10,802.00	4,682.00	7,600.00	7,120.00
Education	920.75	6,120.00	5,199.25	6,120.00	4,500.00
Education-Events	0.00	500.00	500.00	500.00	500.00
Invertebrate Monitoring	0.00	1,500.00	1,500.00	1,000.00	500.00
Grant Writing	0.00	1,100.00	1,100.00	1,000.00	1,000.00
Plan Amendment	190.67	1,000.00	809.33	900.00	1,000.00
Third Gen - Admin	593.33	0.00	(593.33)		
Special Projects	0.00	5,000.00	5,000.00	6,000.00	4,000.00
WRAPP	2,630.95	0.00	(2,630.95)		
Capital Improvement Project	8,767.17	33,000.00	24,232.83	28,180.00	28,000.00
Greenfield Central Park	3,500.00	0.00	(3,500.00)		
Total Expenses	86,322.80	139,241.00	(52,918.20)	133,770.00	134,070.00
Net Income	\$ 72,570.76	\$ 0.00	72,570.76	\$ 0.00	\$ 0.00

Pioneer-Sarah Creek Watershed Management Commission

Proposed 2019 Member Assessments

	2016 Market Value PSC Basin	Increase in MV over Prev Year	2017 Op Budget		Increase over Prev Year	
2017 Approved			%age	Amount	%age	Amount
Greenfield	394,071,759	5.00%	29.12%	38,929.51	3.85%	1,442.20
Independence	510,583,968	1.09%	37.73%	50,439.50	-0.01%	(5.77)
Loretto	54,109,610	5.41%	4.00%	5,345.37	4.26%	218.42
Maple Plain	105,529,093	7.65%	7.80%	10,424.99	6.47%	633.95
Medina	152,170,132	2.63%	11.24%	15,032.56	1.51%	223.89
Minnetrista	136,940,498	1.84%	10.12%	13,528.06	0.72%	97.32
TOTALS	1,353,405,060	3.12%	100.00%	133,700.00	1.99%	2,610.00
	2017 Market Value PSC Basin	Increase in MV over Prev Year	2018 Op Budget		Increase over Prev Year	
2018			%age	Amount	%age	Amount
Greenfield	418,807,770	6.28%	29.25%	37,440.16	-3.83%	(1,489.34)
Independence	537,355,542	5.24%	37.53%	48,037.98	-4.76%	(2,401.52)
Loretto	55,695,940	2.93%	3.89%	4,979.05	-6.85%	(366.32)
Maple Plain	109,218,243	3.50%	7.63%	9,763.78	-6.34%	(661.21)
Medina	158,506,367	4.16%	11.07%	14,170.00	-5.74%	(862.57)
Minnetrista	152,231,289	11.17%	10.63%	13,609.02	0.60%	80.96
TOTALS	1,431,815,151	5.79%	100.00%	128,000.00	-4.26%	(5,700.00)
	2018 Market Value PSC Basin	Increase in MV over Prev Year	2019 Op Budget		Increase over Prev Year	
Proposed 2019			%age	Amount	%age	Amount
Greenfield	368,183,516	-12.09%	25.49%	32,625.08	-12.86%	(4,815.08)
Independence	558,624,135	3.96%	38.67%	49,500.20	3.04%	1,462.22
Loretto	61,598,085	10.60%	4.26%	5,458.26	9.62%	479.21
Maple Plain	118,116,948	8.15%	8.18%	10,466.45	7.20%	702.67
Medina	167,463,487	5.65%	11.59%	14,839.09	4.72%	669.10
Minnetrista	170,530,950	12.02%	11.81%	15,110.91	11.04%	1,501.88
TOTALS	1,444,517,121	0.89%	100.00%	128,000.00	0.00%	0.00

MEMORANDUM

TO: Pioneer-Sarah Creek Watershed Management Commission
FROM: James Kujawa and Kirsten Barta, Hennepin County Dept. of Environment and Energy
DATE: May 10, 2018
SUBJECT: Staff Report

2016-05 Proto Labs Parking Lot Expansion, Maple Plain. The Commission approved this project contingent upon three conditions. One condition remains open - receipt of an Operation and Maintenance agreement on the biofiltration basin per Staff findings dated September 6, 2016. The agreement has been signed but remains to be recorded on the property title.

2017-03 Equestrian Facility (Bel Farms) Independence. This is a 16.5 acre rural residential parcel located approximately 500 feet north of the intersection of CR6 and Nelson Road. The owner is proposing to construct a new garage/apartment, horse stall barn, indoor arena, outdoor arena, six grass and four sand paddocks for horses. Because this project disturbs greater than 1.0 acre and creates 3.1 acres of additional impervious area, it triggers the Commission's review for Rules D and E. Staff provided grading and erosion control approval contingent upon 1) The applicant assuming the risk and responsibility for any changes to the site plans necessary for final Commission approval and 2) The City of Independence approving a grading permit. Staff recommends the Commission approve the Stormwater Management Plan contingent upon receipt of an approved long term pond/basin operation and maintenance plan between the landowner and City of Independence. Said plan must be recorded on the land title. This project was approved at the Commission's September meeting. No new information has been received since that time.

2017-04 Windsong Farm Golf Club Practice Facility, Independence. This site is north of CR 6 and the entrance to the current Windsong Golf Course. The total area owned by Windsong Farm Golf Club north of CR 6 is 126 acres. This project will impact the three easterly parcels (36 acres) of their property. The applicant proposes to construct a new practice facility on a portion of these three parcels. Actual grading/disturbance will be 13.4 acres. New impervious areas will be 0.7 acres. The east shore of Fox Lake (DNR 925W) is the west border of the parcels being impacted. The Commission Rules that apply to this work include Rules D, E, F, and I. Staff recommended approval contingent upon: 1) Specific turf establishment timing requirements being outlined in the SWPPP or Site Plan, 2) Floodplain and Wetland/buffer easements being established over said features on the three parcels where this project is located, and 3) The locations and signage standards for the wetland buffer monumentation being provided to the Commission for review and approval. The Commission approved this project per Staff's recommendations. Item 1 has been addressed adequately, but Staff are still awaiting word on items 2 and 3.

2017-05 Ostberg Equestrian Facility, Independence.* This is a 40 acre agriculture parcel located just southwest of the intersections of CSAH 6 and Game Farm Road. The owner is proposing to construct a new home, two garages, a horse stall barn, indoor arena, outdoor ring, eight horse paddocks and an access drive off of CSAH 6. The project will disturb 7 acres during construction and create 1.69 acres of new impervious areas. Because this project disturbs more than 1.0 acre and creates 1.7 acres of additional impervious area, this triggers the Commission's review for Rules D and E. There are also two wetlands that have been delineated on this site, so the Commission wetland buffer requirements (Rule I) are triggered. The project received grading and erosion control approval by Staff in October 2017 pending final Commission approvals. The project was approved by the Commission at their November 2017 meeting contingent upon receipt of an approved long term pond/basin operation and maintenance plan between the landowner and the City of Independence. Said plan must be recorded on the land title. No new information has been received on the O&M plan documents.

2018-01 Salem Lane Reconstruction Project, Greenfield. Salem Lane work must also be reviewed for floodplain fill/mitigation and erosion controls. A stormwater quality review is not necessary because the site disturbance is less than 1.0 acre and less than 0.5 acres of new impervious area. At the January 2018 meeting, this item was approved per Staff's recommendations. The only remaining item is Staff approval of the erosion and sediment control plans. These have not been submitted as of this report.

RULE D - STORMWATER MANAGEMENT

RULE E - EROSION AND SEDIMENT CONTROL

RULE F - FLOODPLAIN ALTERATION

Language in red indicates current updates

* indicates enclosure

RULE G - WETLAND ALTERATION

RULE H - BRIDGE AND CULVERT CROSSINGS

RULE I - BUFFERS

2018-02W Warren DaLuge Wetland Violation, 4890 Woodland Trail, Greenfield. Staff met with DaLuge and came to an agreement for him to voluntarily remove any fill placed in the wetland on his farmstead by December 1, 2017. As of February 8 the work had not started. Staff requested a restoration order be issued for compliance by June 15. **The order was sent by certified mail. Staff will follow-up in June.**

2018-03W Dingman Homes, Greenfield. This is a new home site in the Meadows of Whisper Creek development south of CR10 near Vernon Street. This project proposes to fill 100 SF of a type 1 / 2 wetland for driveway access to a new residential home. This fill amount is allowed under BWSR WCA Chapter 8420.0420, Exemption Standard Subpart 8, de minimis. A. (3) (c) *"400 sq. ft. of type 1, 2, or 6 wetland outside of the building setback zone (50' for Greenfield), as defined in the local shoreland management ordinance, but within the shoreland wetland protection zone."* It was determined by Staff that based on the lot configuration, the location of the wetland, and the slope of the driveway, the fill is necessary and prudent and avoids natural resource impacts to the greatest extent practicable and is allowed under the de minimis exemption. A notice of decision and site layout with impacts was included in last month's packet. No action is necessary. **This item will be removed from the report.**

2018-04W Grygelko Wetland Enhancement, Greenfield. Grygelko is proposing to excavate an existing shallow wetland basin (type 2 shallow marsh) 2 to 3 feet to provide more of an open water wetland system (type 3-4 wetland basin). The project is adjacent to the existing channel that runs between Schwappauff and Schauer Lakes, but stays 50 feet from it so will not affect the conveyance or cross section of the ditch. This work is allowed under the rules of the 1991 Wetland Conservation Act. The disturbed areas not inundated by water will be restored with a MnDOT native wet-prairie seed mix (34-262). Staff will issue an excavation permit for the activities.

LOCAL WATER PLANS

Per the amended MN Rule 8410.0105, subp. 9, and 8410.0160, subp. 6, Local Water Plans must be prepared by metropolitan cities and towns and must become part of their local comprehensive plans. They must be revised essentially once every ten years in alignment with the local comprehensive plan schedule. A municipality has two years prior to its local comprehensive plan being due to adopt its local water plan. The next local comprehensive plans are due December 31, 2018; thus all cities and towns in the seven-county metropolitan area must complete and adopt their local plans between January 1, 2017 and December 31, 2018.

Local plans from the cities of Loretto and Medina were approved in 2017.

KIRSTEN BARTA

1. Final buffer reminders went out to 4 landowners
2. Letter is going out to 4,000 rural and large lot residential landowners in Hennepin County to remind them of what SWCD services are available.
3. County Ditch system survey will be happening this summer. At least one ditch in PSC watershed is being considered high priority (Ditch #9 in Greenfield).
4. Money has been set aside for voluntary buffer installation at a 75% cost share rate.
5. 2018 should be a heavy corn year, so many landowners in the N-S County Road corridors will receive a letter asking them about leaving up a living snow fence. Letter should go out in April/May sometime. County roads 90, 92, 10, 50, 123, and 19 are of particular interest in this watershed.

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RULE D – STORMWATER MANAGEMENT

RULE E – EROSION AND SEDIMENT CONTROL

RULE F – FLOODPLAIN ALTERATION

Language in red indicates current updates

* indicates enclosure

RULE G – WETLAND ALTERATION

RULE H – BRIDGE AND CULVERT CROSSINGS

RULE I – BUFFERS

Clean Water Partnership Loan

0% Interest

Borrow up to \$2M

Use as match
for other grants

**APPLY
NOW**

What can loans be used for?

- **Urban green infrastructure**
(rain water reuse, green roofs, porous pavement, any stormwater BMP)
- **Buffers:** purchase of native seeds and vegetation
- **Septic system** upgrade/replacement
- **Help:** Technical assistance, outreach, and education
- **Equipment** (e.g., conservation tillage equipment)
- Any nonpoint source **BMP**
- **Feedlot** upgrade/replacement (not for enforcement or other legal action)

Who can get a loan?

- **Counties**
- **Cities and townships**
- **Tribal governments**
- **Watershed districts**
- **Watershed management organizations**
- **Any entity with an eligible sponsor**

How it works



Apply anytime for the CWP Loan at www.pca.state.mn.us/cwp-loans

1. Read the request for proposal
2. Fill out the loan application and have your board approve the resolution
3. Send application and resolution to CWP.Loan.PCA@state.mn.us
4. The application is scored by the MPCA
5. Execute the agreement
6. Save the world—or at least Minnesota's waters for future generations!

First tier loans

For local entities to build projects

Second tier loans

Local entities can make loans to landowners and other stakeholders

Questions?

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