



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

July 13, 2023

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, July 20, 2023, at 6:00 p.m. This will be an **in-person** meeting held at Maple Plain City Hall, 5050 Independence Street, Maple Plain, 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 the regular meeting, please telephone 763.553.1144 or email me at amy@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 the meeting

Regards,

Amy A. Juntunen, Administrator
AAJ:tim

cc: Alternates
Roz Davis, Kris Guentzel, HCEE
Brian Vlach, TRPD
Joel Jamnik, Attorney

Andrew Vistad, Hakanson-Anderson
City Clerks MPCA
Met Council BWSR
official newspapers DNR

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REGULAR MEETING AGENDA

July 20, 2023 • 6:00 p.m.

The meeting packet can be found on the Commission's website:

<http://pioneersarahcreek.org/pages/Meetings/>

1. Call to Order.
 - a. Approve Agenda.*
2. Consent Agenda.
 - a. June meeting minutes.*
 - b. July Claims/Treasurer's Report.*
3. Open forum.
4. Action Items.
5. Old Business.
 - a. Dance Hall Creek Analysis Grant Process.
6. New Business.
 - a. BWSR Clean Water Fund Grant.*
7. Education.
8. Staff Reports.
 - a. Engineer's Report.
 - b. HCEE Report.*
 - c. TRPD Report.
 - a. Whaletail Alum Treatment – recap and photos.*
 - b. Whaletail Alum Treatment Phase II Grant Application.*
9. Commissioner Reports.
10. Other Business.
11. Adjournment. (Next scheduled meeting: August 17, 2023). Z:\Pioneer-SarahCreek\Meetings\Meetings 2023\7 agenda.docx

REGULAR MEETING
Minutes
June 15, 2023

1. CALL TO ORDER. A regular meeting of the Pioneer-Sarah Creek Watershed Management Commission was called to order by Chair Joe Baker at 6:02 p.m., Thursday, June 15, 2023, at Maple Plain City Hall, 5050 Independence Street, Maple Plain, MN.

Present: Mark Workcuff, Greenfield; Joe Baker, Independence; Brenda Daniels, Loretto; Pat Wulff, Medina; Peter Vickery, Minnetrista; Roz Davis and Kris Guentzel, Hennepin County Environment and Energy (HCEE); Andrew Vistad, Hakanson-Anderson; and Amy Juntunen, JASS.

Not represented: Maple Plain.

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

3. CONSENT AGENDA. Motion by Vickery, second by Daniels to approve the Consent Agenda as presented. *Motion carried unanimously.*

a. **May 18, 2023 Regular Meeting Minutes.***

b. **June Treasurer's Report/Monthly Claims *** totaling \$195,132.36.

4. OPEN FORUM.

5. ACTION ITEMS.

a. **2024 Operating Budget and Member Assessments.*** According to the Joint Powers Agreement, the Commission must, on or before July 1 of each year, adopt a budget for the coming year. The budget must be transmitted along with notice of the apportionment of costs to each city by July 1. Member cities then have until August 15 to comment on or raise objections to the budget. If no objections are submitted, the budget proceeds as adopted. If objections are submitted in writing, the Commission must hold a public hearing to consider modifying the budget or proceeding with no change.

The proposed budget was initially reviewed at the May 18, 2023, meeting, with a decision held over to this meeting. A budget subcommittee meeting consisting of Andrew Burak - Maple Plain Commissioner, Vickery and Juntunen was held on June 2 via Zoom to review the budget. It is reformatted from what has been presented in previous years in that it separates out the operating expenses from the capital and other non-operating expenses and revenues. This allows the reader to more clearly determine if the assessments and project review fees are adequately funding operating expenses, or whether the Commission is operating a deficit or surplus. It is analogous to a General Fund budget rather than an all-funds, balance sheet style presented in previous years.

The 2024 budget as proposed is a continuation of the programs and activities undertaken in 2022, with some slight modifications. The overall proposed budget is about a \$4,000 increase over the 2023 budget

to allow for the increased cost of water quality monitoring and Hennepin County Outreach.

The 2024 budget as proposed includes no increase in city assessments, which have held steady at a total of \$131,800 since 2020.

Motion by Daniels, second by Vickery to approve the 2024 budget and member assessments as presented. *Motion carried unanimously.*

b. 2022 Audit Report.* The Auditor reported no issues identified during the audit process, no deficiencies in the Commission's internal controls over financial reporting considered to be material weakness, and no findings of non-compliance with Minnesota Laws and Regulations. Motion by Workcuff, second by Daniels to accept the 2022 Audit Report as presented. Motion carried unanimously. It will be forwarded to the State Auditor and to the Board of Water and Soil Resources by the June 30, 2023, deadline.

c. GS68 Assurance Letter.* The Board of Water and Soil Resources (BWSR) requires an assurance letter for stabilization projects to ensure that, if the stabilization fails or does not meet standards, the grantee has funding available to maintain, repair or replace the project to ensure it meets its designed life effectiveness. In this letter, the Commission agrees to set aside 40% of the project cost for future maintenance and repairs as needed. Staff suggested that the Commission add this as an ongoing line item to the CIP and pass a resolution to assign current unrestricted/unassigned funds to a new project maintenance fund for this purpose. The amount will not decrease as the project ages and the funds can be unassigned by future resolution at the end of the project lifespan or assigned to maintenance of other projects. The Commission currently has an unrestricted/unassigned fund balance of \$347,879.

Motion by Daniels, second by Wulff to approve the assurance letter as written and authorize signature by the Chair. *Motion carried unanimously.*

Motion by Daniels, second by Vickery to create an assigned fund for BWSR Assurance/Project Maintenance and assign \$15,000 from current unrestricted/unassigned funds to this account. *Motion carried unanimously.*

6. OLD BUSINESS

7. NEW BUSINESS.

Hennepin County Opportunity Grant.* Hennepin County hosted an Opportunity Grant workshop today with about 20 attendees. Opportunity Grants are provided by the County to fund projects or be used as match funds for larger grants for water protection projects or habitat protection and restoration projects. Brian Vlach will apply for an Opportunity Grant as a match for Whaletail alum treatment projects, for which the Commission was awarded a BWSR Clean Water Fund grant in late 2022.

Guentzel and Davis have been working on outreach for the **Dance Hall Creek subwatershed assessment** and would like to apply for both an Opportunity grant and a Clean Water Fund grant for projects identified in the assessment. The Clean Water Fund grant deadline is in mid-August. Since the information for the grants would be similar, writing the Clean Water Fund grant would also cover most of the cost of writing the Opportunity grant. Funding for grant writing has been included, but rarely used, in the general operating budget since 2017. The unused funds make up a portion of the total unrestricted/unassigned fund balance.

Motion by Daniels, second by Wulff to authorize Staff to contact Diane Spector at Stantec regarding writing both an Opportunity and Clean Water Fund grant for the Dance Hall Creek BMP analysis project. *Motion carried unanimously.*

8. EDUCATION.

9. STAFF REPORTS.

a. Engineer's Report.* The staff report details ongoing project reviews and was included in the meeting packet for review. The Greenfield city engineer informed Vistad that **Greenfield Road** has been allocated funds to upgrade and reconstruct the roadway. The Dance Hall Creek outlet structure that flows under Highway 55 has been a barrier to adjusting the grade of Greenfield Road. This project would be a good opportunity to address the elevation to make accommodation for future watershed projects. The Greenfield Road project will also address some erosion occurring along the roadway.

The bid process for the **GS68 gully stabilization project** has not yet begun. Quotes have been requested for testing sediment in the pond to determine how the dredged material will need to be disposed of. Vistad will arrange to survey the project area and prepare plans and specs for approval by the Commission. Once approval is granted, the construction bid process will begin. A wetland specialist will need to visit the site to determine whether a wetland delineation is necessary.

b. HCEE Report.*

Buffer inspections will be occurring late July through early August in the northernmost one-third of the County, including areas of Greenfield. Letters will be sent to affected citizens in early July.

Staff have been following up on the 2022 postcard mailing. The **Vinland National Center** just north of Camp Iduhapi on Lake Independence showed interest. A staff visit identified several areas for potential projects to better manage runoff from paved surfaces across the campus. County staff recommend installing raingardens in and around the parking lot to control stormwater as phase one. Phase two would include addressing ravine erosion near the back lot which drains the most stormwater from the property directly to a wetland adjacent to Lake Independence.

County staff will seek Commissioner and engineer guidance on the permitting process and project implementation for the **Anderson wildlife pond and habitat improvement project** on Fogelman Road in Independence. The project will include restoration of a wetland adjacent to CSAH 90. The project mainly has a habitat focus, but the restoration will provide water quality value and is within the Lake Independence subwatershed.

Kevin Ellis at HCEE has been working on the **Shriners project**. The project has been adjusted to use above-ground piping for the waterers, which greatly reduces the cost of the project and lessens concerns about trampling the pipes. NRCS has not finalized and approved the revised plans yet. The waterers will likely not be installed until 2024.

One Dance Hall Creek landowner was interested in gutters for their barn and protection for a heavy-use area. The owner has installed the gutters on their own and performing wetland

enhancements on the property. They may be interested in a project for the heavy-use area at a later time.

HCEE will be launching a monthly newsletter in July called **Conservation Connection**. Commissioners will be subscribed automatically.

The deadline for the next round of **Lawns to Legumes** funding is June 30.

The **Olsen manure bunker** project is on hold until a concrete contractor can be found to do the project.

c. **TRPD Report.** The first round of the Whaletail alum treatment was completed over three days in late May. Photos will be available at the July meeting.

d. **JASS Report.** Juntunen presented the 2023-2024 insurance binder for signature.

10. COMMISSIONER REPORTS.

a. **Baker** reported that the Lake Sarah curly leaf pondweed treatment has occurred. The treatment area was reduced to nine acres after the spring survey, down from the original treatment area of 180 acres ten years ago. The Commission and TRPD typically share in the treatment cost.

A second nesting loon with two chicks has been found on the lake.

b. **Daniels** shared that there was a water main break in Loretto yesterday leaving half the city without water. The break has been repaired.

11. OTHER BUSINESS.

The **next regular meeting** is scheduled for July 20, 2023 at Maple Plain City Hall.

12. **ADJOURNMENT.** There being no further business, motion by Daniels, second by Workcuff to adjourn. The meeting was adjourned at 7:19 p.m.

Respectfully submitted,



Amy Juntunen
Administrator
AAJ:tim

Z:\Pioneer-SarahCreek\Meetings\Meetings 2023\6 Minutes PSC.docx

Pioneer-Sarah Creek Watershed
Cash Disbursements Journal
For the Period From Jul 1, 2023 to Jul 31, 2023

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

Date	Check #	Account ID	Line Description	Debit Amount	Credit Amount
7/12/23		51300	Property/Casualty Coverage	2,934.00	
		10100	League of MN Cities Insurance Trust		2,934.00
7/20/23		50110	22-17 Kettering Creek	805.00	
		50110	22-20 Crimson Woods	345.00	
		50110	23-02 Rockvram Boatyards Site Plan	920.00	
		50100	General Engineering	429.36	
		10100	Hakanson Anderson Associates, Inc.		2,499.36
7/20/23		51100	Administration	1,009.48	
		51100	Meeting-related	1,002.84	
		51100	Bookkeeping, Audit Prep	666.74	
		51400	Website	37.50	
		10100	Judie Anderson's Secretarial Service		2,716.56
Total				8,149.92	8,149.92



CONNECTING & INNOVATING
SINCE 1913

Invoice

Page 1 of 3

Member Name and Address

Pioneer-Sarah Creek
Watershed Management
Commission
3235 Fernbrook Lane N.
Plymouth, MN 55447-5325

Invoice Date

06/23/2023

Agent

Arthur J Gallagher Risk Management Services LLC
3600 American Blvd W Ste 500
Bloomington, MN 55431-4502
(952)358-7500

Account Number: 40000782
Account Type: Property/Casualty Coverage Premium
Current Balance: \$ 2,934.00
Minimum Due: \$ 2,934.00
Due Date: 08/01/2023

Summary of activity since last Billing Invoice	Date	Activity	Account Balance	Minimum Due
See reverse side and attachments for additional information		Previous Invoice Balance	2,930.00	
		Payments Received	-.00	
		Total of Transactions and Fees shown on reverse or attached	2,934.00	
		Current Balance	\$ 2,934.00	\$ 2,934.00

Detach and return this Payment Coupon with your payment

Account Number
40000782

Invoice Date
06/23/2023

Due Date
08/01/2023

Current Balance
\$ 2,934.00

Minimum Due
2,934.00

Amount Enclosed
\$ _____

Member Name Pioneer-Sarah Creek Watershed Management Commission

BILLING INVOICE - Return stub with payment - make checks payable to:

Mail payment
7 days before
Due Date to
ensure timely
receipt

League of MN Cities Insurance Trust P&C
c/o Berkley Risk Administrators Company
222 South Ninth Street, Suite 2700
P.O. Box 581517
Minneapolis, MN 55458-1517

INVOICE SUMMARY FROM HAKANSON ANDERSON

PIONEER SARAH WATERSHED MANAGEMENT COMMISSION

INVOICES FOR MAY 2023

Project ID & Description	Invoice Number	Invoice Date	Amount
PSC215 2022-17 KETTERING CREEK	50951	06/28/23	805.00
PSC218 2022-20-CRIMSON WOODS	50952	06/28/23	345.00
PSC220 2023-02 ROCKVAM BOATYARDS SITE PLAN	50953	06/28/23	920.00
PSC901-2023 GENERAL ENGINEERING FOR PIONEER SARAH WMC 2023	50954	06/28/23	429.36
			2,499.36



3601 Thurston Avenue
Suite 101
Anoka, MN 55303

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

Invoice number 50951
Date 06/28/2023

Project **PSC215 2022-17 KETTERING CREEK**

Professional Services Provided Through 05/31/2023

MUNICIPAL REVIEW

Professional Fees

	Date	Hours	Rate	Billed Amount
Andrew Vistad DEVELOPMENT REVIEW NO 2	05/02/2023	1.50	115.00	172.50
Andrew Vistad DEVELOPMENT REVIEW NO 2	05/08/2023	5.00	115.00	575.00
Andrew Vistad DEVELOPMENT REVIEW NO 2	05/24/2023	0.50	115.00	57.50
PROFESSIONAL FEES SUBTOTAL				805.00
MUNICIPAL REVIEW SUBTOTAL				805.00
AMOUNT DUE THIS INVOICE				805.00

Invoice Summary		Current Billed	Prior Billed	Total Billed
	Total	805.00	866.25	1,671.25



3601 Thurston Avenue
Suite 101
Anoka, MN 55303

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

Invoice number 50952
Date 06/28/2023

Project **PSC218 2022-20-CRIMSON WOODS**

Professional Services Provided Through 05/31/2023

MUNICIPAL REVIEW

Professional Fees

	Date	Hours	Rate	Billed Amount
Andrew Vistad <i>DEVELOPMENT REVIEW NO 3</i>	05/03/2023	3.00	115.00	345.00
PROFESSIONAL FEES SUBTOTAL				345.00
MUNICIPAL REVIEW SUBTOTAL				345.00
AMOUNT DUE THIS INVOICE				345.00

Invoice Summary

	Current Billed	Prior Billed	Total Billed
Total	345.00	3,438.75	3,783.75



3601 Thurston Avenue
Suite 101
Anoka, MN 55303

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

Invoice number 50953
Date 06/28/2023

Project **PSC220 2023-02 ROCKVAM
BOATYARDS SITE PLAN**

Professional Services Provided Through 05/31/2023

MUNICIPAL REVIEW

Professional Fees

	Date	Hours	Rate	Billed Amount
Andrew Vistad SITE PLAN REVIEW NO 1	05/01/2023	1.00	115.00	115.00
Andrew Vistad SITE PLAN REVIEW NO 1	05/02/2023	1.50	115.00	172.50
Andrew Vistad SITE PLAN REVIEW NO 1	05/10/2023	1.50	115.00	172.50
Andrew Vistad SITE PLAN REVIEW NO 1	05/11/2023	3.50	115.00	402.50
Andrew Vistad SITE PLAN REVIEW NO 1	05/24/2023	0.50	115.00	57.50
PROFESSIONAL FEES SUBTOTAL				920.00
MUNICIPAL REVIEW SUBTOTAL				920.00
AMOUNT DUE THIS INVOICE				920.00
Invoice Summary		Current Billed	Prior Billed	Total Billed
	Total	920.00	0.00	920.00



3601 Thurston Avenue
Suite 101
Anoka, MN 55303

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

Invoice number 50954
Date 06/28/2023

Project **PSC901-2023 GENERAL ENGINEERING
FOR PIONEER SARAH WMC 2023**

Professional Services Provided Through 05/31/2023

GENERAL ENGINEERING

Professional Fees

	Date	Hours	Rate	Billed Amount
Andrew Vistad	05/18/2023	3.50	115.00	402.50
MONTHLY MEETING				
PROFESSIONAL FEES SUBTOTAL				402.50

Reimbursables

	Date	Units	Rate	Billed Amount
MILEAGE	05/18/2023	41.00	0.655	26.86
REIMBURSABLES SUBTOTAL				26.86
GENERAL ENGINEERING SUBTOTAL				429.36
AMOUNT DUE THIS INVOICE				429.36

Invoice Summary

	Current Billed	Prior Billed	Total Billed
Total	429.36	2,031.83	2,461.19



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

3235 Fernbrook Lane
Plymouth MN 55447

July 14, 2023

Total Project Area

Total Project Area

General Administration

Administrative		70.00	0.000
Administrative	2.00	75.00	150.000
Administrative - virtual		80.00	0.000
Handbook		75.00	0.000
Office Support	10.00	75.00	750.000
Public storage	1.00	109.48	109.480
Data Processing/File Mgmt		70.00	0.000
Archiving		70.00	0.000
Reimbursable Expense		1.00	0.000

1,009.480 Administration

Meeting packets, attendance, Minutes and Meeting follow-up

Administrative		70.00	0.000
Administrative	7.85	75.00	588.750
Admin - offsite	3.00	80.00	240.000
Reimbursable Expense	174.09	1.00	174.090

1,002.840 Meeting-related activities

Bookkeeping, Budget, Audit Prep, Treas Report

Bookkeeping		70.00	0.000
Bookkeeping, budget, audit requests	4.64	75.00	348.000
Budget - virtual		80.00	0.000
Treasurer's Reports	2.75	75.00	206.250
Audit Prep		70.00	0.000
Audit Prep	1.22	75.00	91.500
Reimbursable Expense	20.99	1.00	20.990

666.740 Bookkeeping/TRs

Website

Weebly hosting - 1 year		1.00	0.000
Pages, links, uploads		75.00	0.000
Administrative	0.50	75.00	37.500

37.500 Website

2,716.560

2,716.560

Judie Anderson

From: Minnesota Board of Water and Soil Resources <mnbswr@public.govdelivery.com>
Sent: Thursday, June 29, 2023 9:36 AM
To: Judie Anderson
Subject: News Release: BWSR Accepting Applications for Clean Water Fund Grants



News Release

FOR IMMEDIATE RELEASE

Contact: Mary Juhl (612-358-5733)

BWSR Accepting Applications for Clean Water Fund Grants

June 29, 2023

St. Paul, Minn. — The Minnesota Board of Water and Soil Resources (BWSR) is now seeking applications for its Clean Water Fund Competitive Grants Program. More than \$8.7 million in grants and \$8.2 million in loans are available to local governments. Eligible applicants include soil and water conservation districts, watershed districts, watershed management organizations, counties, joint powers boards and municipalities with approved water management plans.

"Supporting local efforts to improve water quality and protect drinking water is essential to BWSR's mission," said BWSR Executive Director John Jaschke. "These grants will help local governments advance meaningful conservation work throughout Minnesota."

The application period opens June 29 and closes August 24. Grants are typically awarded during the winter following the application period. Interested applicants can find the Request for Proposals on [BWSR's website](#).

About the Minnesota Clean Water Fund Minnesota voters approved the Clean Water, Land and Legacy Amendment in 2008 to protect, enhance, and restore wetlands, prairies, forests, and fish, game, and wildlife habitat; to preserve arts and cultural heritage; to support parks and trails; and to protect, enhance, and restore lakes, rivers, streams, and groundwater. The Clean Water Fund receives 33 percent of the sales tax revenue generated by the Legacy Amendment. More information about the Clean Water Fund is [available here](#).

###

BWSR is the state soil and water conservation agency, and it administers programs that prevent sediment and nutrients from entering our lakes, rivers, and streams; enhance fish and wildlife habitat; and protect wetlands. The 20-member board consists of representatives of local and state

government agencies and citizens. BWSR's mission is to improve and protect Minnesota's water and soil resources by working in partnership with local organizations and private landowners.



Questions? [Contact Us](#)



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This email was sent to judie@jass.biz using GovDelivery Communications Cloud on behalf of: Minnesota Board of Water and Soil Resources · 520 Lafayette Rd N · Saint Paul, MN 55155 · 651-296-3767



HENNEPIN COUNTY

MINNESOTA

DATE: July 14th, 2023

TO: Pioneer-Sarah Creek Watershed Management Commission

FROM: Roz Davis, Kevin Ellis, and Kris Guentzel; Hennepin County Department of Environment and Energy

RE: July Commission Project, Program, and Outreach

South Fork Crow One Watershed One Plan

Update: County staff reviewed and provided comments on the draft version of the One Watershed One (1w1p) Plan report that is being prepared for the South Fork of the Crow River planning area. This planning area includes Pioneer-Sarah Creek and extends west across 6 counties to include all areas draining to the South Fork of the Crow River just south of Delano. County staff are participating in this planning initiative on behalf of Pioneer-Sarah Creek WMC, Three Rivers Park District, and the County. The planning team anticipates a draft will be ready for public review later this summer or early fall and hope to finalize the report by year's end.

These One Watershed One Plan reports are completed in lieu of individual county water plans that counties outside the metro must complete. Once the 1w1p plan is complete, the planning group is eligible to receive watershed-based implementation funds (WBIF). As a metro watershed with a completed watershed plan, Pioneer-Sarah Creek WMC already receives these funds. Staff are reviewing the plan on behalf of planning partners to ensure our plans' priorities are included, which may help us in future competitive grant requests.

Watershed-based Implementation Funds (WBIF) Financial Assurance Letter for GS68

Update: No update.

Previous: During the May Commission meeting we discussed the need to draft financial assurance letters for both the GS68 Gully Stabilization and the Lake Rebecca Channel Restoration. BWSR is requiring written financial assurances be provided for all streambank and shoreline restoration projects in the event major damage occurs and/or the installation fails. Staff have drafted a letter for the GS68 Gully Stabilization and provided it with June packet materials for Commission review and discussion. A draft of this letter was provided to BWSR staff and they confirmed the letter as drafted would likely meet BWSR's requirements for financial assurance. Staff recommend the Commission provide necessary edits to the draft and approve the draft with those edits so staff may finalize the letter and include it with the Watershed-based Implementation Funds (WBIF) work plan. Three Rivers Park District will also draft a



similar letter for the Lake Rebecca Channel Restoration, likely utilizing any feedback provided by the Commission and staff at the June meeting.

Subwatershed Assessments

Spurzem Creek Subwatershed Assessment

Update: No update.

Previous: Report was substantially completed over the winter, incorporating comments providing by partners. The County met with MPCA staff regarding concerns with BMP installations in/near the Woodlake landfill in Medina. These concerns were incorporated into the draft and staff plan to make this available to partners soon.

Lake Rebecca Subwatershed Assessment

Update: Comments were submitted to the contractor in July. County staff are garnering feedback on approach for remaining feasibility analysis and design funds as part of this project.

Previous: Staff have received a draft report of the Lake Rebecca Subwatershed Assessment from the County consultant. The draft has been provided to partners and stakeholders, who had until March 15th to provide comments. County staff will finalize the document later in summer 2023.

Projects & Outreach

Buffer Inspections

Update: No update.

Previous: Buffer Law inspections will take place throughout July and August. This year inspections are only occurring north of County Road 10, which just includes portions of the City of Greenfield within PSCWMC jurisdiction.

Lake Rebecca/Zuhrah Shrine Horsemen (ZSH) (4505 CR 92, Independence) BMPs

Update: NRCS completed updates for ZSH's plans with a few slight modifications, and staff anticipate sharing that with the Commission once they become available. ZSH volunteers have begun work on the fencing.

Previous: ZSH has received fencing, waterer, and grazing plans from NRCS. ZSH completed its cost share application and has begun installing fencing consistent with the NRCS plans and intend to complete all fencing installation over the course of 2023 (ZSH is providing labor as an in-kind contribution for the project). ZSH and NRCS agreed to stagger implementation of the fencing in three phases throughout spring, summer, and fall 2023. They anticipate that the waterers will be completed in 2024. Additional design work on the drainage repair is anticipated in 2023.

Pioneer Trail Manure Bunker, Medina (west of Lake Peter)

Update: No update.

Previous: Commission approved financially supporting the project at the November meeting. The landowner is still gathering quotes from contractors. Project install not expected until late summer or fall 2023.

Vinland National Center

Update: Staff met with EOR to talk about the site and engineering needs. We expect a rough time estimate soon and will likely conduct another site visit with EOR present. Design details will hopefully be ready by late August or early September.

Previous: Staff completed a site visit to Vinland National Center and identified several areas for potential projects, particularly to better manage runoff from paved surfaces across the campus. These will likely be phased over a number of years. We recommended implementing several rain gardens in and around the parking lots to control stormwater as part of phase one. During phase two, we suggested addressing the ravine erosion near the back lot, as this area receives most stormwater on the property and drains directly to a wetland adjacent to Lake Independence.

Anderson Wildlife Pond and Habitat Improvement Project

Update: No update.

Previous: County staff have been working with Bill Anderson, 6476 Fogelman Road in Independence, to assist him in developing a strategy to improve the wildlife value of uplands and lowlands on his property, notably including the removal of invasive species in his oak forest and restoration of a wetland adjacent to County 90. This project has a habitat focus but provides some water quality value and is within the Lake Independence subwatershed, which is a Commission priority. County staff plan to engage the Commission engineer in the coming weeks for guidance on permitting and some of the technical aspects of the project. Implementation within the wetland would likely occur in the late fall or winter when its safe for heaving equipment.

Bridgevine Development

Update: Staff conducted two site visits to Bridgevine Development. One with the property developer, who is interested in applying for a Hennepin County Opportunity Grant to address ravine erosion and to install a settling basin. This ravine restoration was one of the BMPs sited in the Lake Independence SWA in 2014. A second site visit was with a contractor that was hired by an individual landowner, who is interested in a lakeshore restoration, including riprap and other natural restoration features along the lakeshore. Staff also discussed enhancements to the ravine settling basin to improve water quality treatment. The contractor is also expected to apply for an Opportunity Grant. Both may also be considered for county and Pioneer-Sarah Creek cost share funding later this year.

Spring/Summer Outreach

Conservation Connection E-Newsletter:

Update: HCEE launched a new e-newsletter on July 10th called Conservation Connection. This e-newsletter is exclusively focused on conservation and will feature content such as funding opportunities, DIY conservation, BMP examples, creature features, and upcoming events. We have collected just under 400 emails so far and will continue building this list as we interact with landowners.

The e-newsletter goes out quarterly and the next edition is scheduled for October. We are able to share segments with cities and other partners, so please let us know if you can think of any partners that may want to share our content in their own newsletters.

2022 Lake Independence and Lake Sarah outreach follow-up:

Update: No update.

Previous: County staff took inventory of previous outreach efforts in the Lake Independence and Lake Sarah subwatersheds. We have finished reengaging with landowners that had potential cost-effective BMPs, but so far there are no additional projects, outside those listed above, that are able to move forward with design work and cost share assistance for BMP implementation.

Dance Hall Creek:

Update: Staff have made contact with all landowners except one. We will continue efforts to reach them and still hope to apply for a grant this summer.

Previous: This spring county staff sought to re-engage all landowners in the Dance Hall Creek subwatershed area that was the focus of the 2022 Dance Hall Creek subwatershed assessment. We have performed three site visits and had one virtual visit with landowners. Staff will continue outreach to those who haven't responded. County staff are also gauging interest in doing smaller projects with individual landowners.

One of the owners is now considering implementing wetland habitat enhancements for a small ¼ acre wetland near Greenfield Road, along with drainage improvements to address flooding and sediment erosion around their horse barn. Hennepin County staff are providing technical guidance for the project, but the landowner did not wish to move forward with financial assistance. The wetland enhancements will include excavating accumulated sediment, providing a rolling landscape for wildlife species, and reed canary management. Sediment will be disposed of off-property and staff are waiting for written confirmation regarding the location of the disposal site.

Staff are still working to identify other opportunities to cost share BMP implementation in the subwatershed.

Other Environment and Energy Programming Notes:

- a. Hennepin County staff teamed up with TRPD staff to perform livestock animal counts for the Lake Independence subwatershed in preparation for a new TMDL. Desktop counts were performed using ArcGIS Pro and NearMap, and were ground-truthed with windshield surveys. Data should be finalized and available to partners soon.

- b. This spring, the county began biological monitoring for butterflies and bees. The first year of data collection will establish a vital baseline inventory of what pollinators are present in the county. This data will be used to inform our habitat restoration and management decisions to create healthier ecosystems that are home to a diversity of species and resilient to climate change. Pollinator surveys will be conducted three times per year – in the spring, summer, and fall. This helps us better understand the diversity of pollinators in an area, learn what species are prevalent at different times of year, and understand how species composition changes as habitat restoration projects are completed.
- c. Hennepin, Ramsey, and Washington Counties are working jointly to reduce wasted food as part of achieving our waste and climate goals. They've partnered with many organizations to create the Stop Food Waste Challenge, which runs through August 1st-August 30th. This challenge encourages participants to take certain actions, such as smart food planning and shopping, to help mitigate the amount of food that gets thrown away. Learn more about the challenge and how you can join here: <https://stopfoodwaste.ecochallenge.org/>
- d. Natural Resources Opportunity Grants are available for larger projects to improve water quality or preserve, establish, or restore natural areas. Grants are available to landowners, which include individuals, government organizations, nonprofit organizations and businesses for projects that preserve and restore the county's natural resources. The deadline for summer applications is July 20th. View more information here: <https://www.hennepin.us/business/conservation/funding-assistance-natural-resources-projects#natural-resources-grants>



Lakeshore Dr

S Lakeshore Dr

S Lakeshore Dr

Maple St

Maple St

Lakeshore Dr

Lakeshore Dr

Perkinsville Rd

MIN Department of Agriculture

Whaletail Lake – South Basin

Alum Treatment

Photos











Natural Resources Opportunity Grant Program



This Natural Resources Opportunity Grant Application Form is available on the program website:

<https://www.hennepin.us/business/conservation/funding-assistance-natural-resources-projects>

Application instructions

The Application

The Natural Resources Opportunity Grant application is to be used by local, state, or regional governmental units, landowners, and other organizations to seek Natural Resources Opportunity Grant program funds from Hennepin County. Please complete all required sections of the application. Incomplete applications will not be considered for funding.

Part 1 of the application requests background information on the applicant, the project area, project type, and funding request. Part 2 of the application requests detailed information on the project, natural resources problem or need being addressed, scope of work, and project budget. Part 2 of the application will be reviewed and rated against the evaluation criteria listed for each question, and the Selection Considerations listed in the Opportunity Grant guidelines. Please ensure your answers sufficiently meet each of these criteria when completing the application.

Application Resources

An overview of all Hennepin County Natural Resource funding opportunities, programs, guidelines and applications can be found at <https://www.hennepin.us/business/conservation/funding-assistance-natural-resources-projects>.

Prospective applicants are invited to contact the county for feedback on project ideas before applying. County staff are also available to provide assistance in filling out the application, particularly to provide information on project benefits and/or your project's ability to meet natural resource management goals. Please contact Ellen Sones (612-596-1173; ellen.sones@hennepin.us) if you're interested in filling out the application and seeking assistance. Once the application is complete, please submit the application to Ellen Sones via email (ellen.sones@hennepin.us).

Part 1

Natural Resources Opportunity Grant Application



Application No. _____

Place the cursor in the gray box at question 1, fill in the answer, and then use the F11 function key to navigate through the remaining questions in the application.

1. PROJECT TITLE:

Whaletail Lake – South Basin Alum Treatment

2. APPLICANT NAME:

Brian Vlach-Three Rivers Park District

3. APPLICANT SIGNATORY: *(The person whose name is listed here must sign Part 1 -Box 7 of this application)*

Name: Brian Vlach

Title: Senior Manager of
Water Resources

Telephone Number: 763-694-7846

E-Mail Address:
Brian.Vlach@ThreeRiversParks.org

Mailing Address

Organization (if any): Three Rivers Park District

Address: 12615 Rockford Road

City: Plymouth State: MN Zip Code: 55441-1248

4. PROJECT DURATION:

Estimated Start Date: May 1, 2024

Estimated Completion Date: May 31, 2024

Anticipated PROJECT Length: 1 month

Part 1

Natural Resources Opportunity Grant Application

5. PROJECT TYPE:

- ☒ 1. Water Quality Project
☐ 2. Wetland Restoration
☐ 3. Habitat Restoration/Protection
☐ 4. Assessment Identifying Future Projects
☐ 5. Other:

6. FUNDING REQUEST: (Provide the amount of funding requested to complete your project.)

Check for consistency with costs provided in Part 2, Question 2.

Project Amount:

Total PROJECT Cost

This amount represents the full cost of the PROJECT.

\$431,251

Natural Resources Opportunity Grant Request

\$25,000

Other Match Funds in PROJECT

Identify secured source(s) of funds:

Funding Source BWSR Clean Water Legacy Grant

Funding Source Three Rivers Park District

Funding Source Pioneer-Sarah Creek Watershed Management Commission

Funding Source City of Minnetrista

\$345,000

\$25,013

\$21,563

\$14,675

Describe the status of the matching funds: The project received Clean Water Legacy Grant funds for the project, and a Cooperative Agreement has been signed securing the remaining funds from the other partners.

7. APPLICATION CERTIFICATION:

I CERTIFY TO THE BEST OF MY KNOWLEDGE THAT THE INFORMATION IN THIS APPLICATION IS TRUE AND CORRECT AND THAT I AM THE **LEGALLY AUTHORIZED SIGNATORY** OR DESIGNEE FOR THE SUBMITTAL OF THIS INFORMATION ON BEHALF OF THE APPLICANT.

Brian Vlach

Brian Vlach

Printed Name

Signature

Senior Manager of Waters Resources

7/3/2023

Title

Date

Part 1
Natural Resources Opportunity Grant Application
THIS CONCLUDES PART 1

Part 2

Natural Resources Opportunity Grant Program

This is the portion of the grant application the evaluation panel will use to provide an adjectival rating for the application. Each question identifies criteria the panel will use to evaluate the application. Criteria are provided in no particular order.

EXECUTIVE SUMMARY

Summarize the overall project, the associated water quality problem, and how the project will address or solve the problem. (Limit your answer to 250 words or less).

Whaletail Lake (MDNR 27-018400) is located within the jurisdictional boundaries of the Pioneer-Sarah Creek Watershed Management Commission (PSCWMC). The lake is considered having two distinct basins relative to the Minnesota water quality nutrient standards with South basin (MDNR 27-018402) classified as a deep lake and the North basin (MDNR 27-018401) classified as a shallow lake. The lake was listed on the MPCA's 303(d) impaired list for aquatic recreation due to excessive nutrients (South-2006 & North-2008). The Watershed Restoration and Protection Strategies (WRAPS) and Total Maximum Daily Load (TMDL) studies completed in 2017 identified internal loading comprising 80% of the total phosphorus load affecting surface water quality and recommended an alum treatment to achieve the MPCA water quality standards. The goal of treating Whaletail Lake-South Basin with alum is to reduce the phosphorus load by at least 180 lbs/year to meet the load reductions identified in the WRAPS/TMDL report. An alum feasibility study indicated that treating the Whaletail-South Basin with alum will reduce internal P-load (381 lbs/year) to achieve the in-lake water quality standards for a 20-year period. As a secondary benefit, improvements to the in-lake phosphorus concentration for the South basin would effectively reduce the phosphorus load to the North basin by 52 lbs/year. The first alum treatment was completed in 2023 as a partnership with BWSR, PSCWMC, Three Rivers Park District, and City of Minnetrista. This grant application is requesting funding for the second alum treatment to occur by the end of June in 2024.

1. SCOPE OF WORK

Evaluation Criteria
Project description is clear and concise, scope is feasible
Project tasks, and level of effort to complete them, are clearly described
Deliverables and timeline are clearly defined. Timeline within 3-year grant period.
Project is feasible as proposed with resources (people, money, etc.) outlined in the scope of work
The purpose meets defined shared goals of county and project partners

Reviewers provide favorable ratings for scopes of work that thoroughly meet the evaluation criteria and that directly address one or more natural resource management problems/needs. The scope must demonstrate an understanding of the work required to fully implement and complete the project.

Using the area below, please provide:

- A detailed scope of work for the project that includes clearly defined tasks, deliverables, timelines, and purpose.
 - Describe the intended results (what is the benefit?).
 - Be specific, clear, and concise.

Part 2

Natural Resources Opportunity Grant Program

- Describe the project area and provide supporting map(s) and relevant diagrams and/or pictures.

The South Basin of Whaletail Lake is 156-acre deep lake that was placed on the MPCA's impaired waters list for excessive nutrients in 2006. The most recent phosphorus budget analysis completed for Whaletail Lake-South basin in 2017 indicated that the internal loading accounts for 80% (424 pounds) of the existing total P-loading (529 pounds) for the lake. Recent sediment analysis further indicated that the lake has high mobile sediment phosphorus concentrations and high phosphorus release rates. The project proposes to control internal P-loading through two alum applications to meet the state water quality standards.

A feasibility study was recently completed in 2022 to determine the target dosage necessary to inactivate mobile phosphorus within the top 6 cm of the sediments. A target dosage of 84 g Al/m² will be needed to achieve long-term inactivation of sediment phosphorus release. It was recommended that the alum be applied in two separate half doses of 42 g Al/m² over 100-acres of the lake at a depth > 9 feet. The dosage calculation will inactivate the mobile phosphorus within the top 6 cm of the sediments and reduce internal phosphorus load by 381 lbs to achieve the in-lake water quality standards for a period of approximately 20-years.

The project has already secured the necessary permits from the MPCA and the DNR. The first alum application of 42 g Al/m² occurred in May of 2023. A second alum application will be needed to inactivate the remaining mobile sediment P to achieve the long-term in-lake water quality state standards. The grant request is for the second alum treatment application to occur in the spring of 2024. The 2nd treatment application will require the following tasks/protocols to be applied and provided as deliverables:

- Alum application will require approximately 77,490 gallons of liquid aluminum sulfate (alum) in the 100-acre treatment area.
- Monitoring on-site pH, alkalinity, dissolved aluminum sulfate throughout the water column during the entire application process to avoid aquatic toxicity from the alum application.
- Treatment will occur over a 4-day period in the spring (May) when the lake is a minimum of 40° F throughout the water column.
- Monitor chemical distribution to ensure uniform chemical coverage during application by providing GPS coordinates and documentation of chemical pumping rates into the lake.
- Alum application will occur over 100-acres at depths > 9-feet (see attached figure of treatment area).

A primary shared goal among the partners is to remove the lake from the MPCA's impaired water's list. The Whaletail Lake-South basin alum treatment was identified as a priority capital improvement project in the PSCWMC 4th Generation Watershed Management Plan to delist the lake from the MPCA impaired Water's List. The project also aligns with the statewide priorities referenced in the Nonpoint Priority Funding Plan to restore those waters that are closest to meeting state water quality standards as well as restore and protect water resources for public use and public health. The project proposal treating the South basin of Whaletail Lake with alum will also fully accomplish the load reductions called for as part of the WRAPS/TMDL study. The decrease in internal loading generated by the project will have significant lake-wide benefits. The alum treatment will bring the south basin of Whaletail lake into compliance with state water quality standards. The alum treatment for the South basin will also provide a secondary water quality benefit for the North basin of Whaletail Lake.

This project has received support from several different agencies and steps have been taken to ensure that the project implementation can proceed. The project has secured Clean Water Legacy grant funding from the Board of Water and Soil Resources (BWSR). The BWSR Clean Water Legacy Grant funding requires a 25% cost-share match from the remaining partners that include the Pioneer-Sarah Creek Watershed Management Commission (PSCWMC), Three Rivers Park District, and the City of Minnetrista. This grant application will help off-set partnership cost-share contributions needed for the 2nd application of the alum treatment.

Part 2

Natural Resources Opportunity Grant Program

2. PROPOSED BUDGET

Evaluation Criteria

Complete project budget is consistent with the scope of work and estimates are clear and reasonable.

Project attempts to leverage other, and preferably several, local, state, or federal resources.

The project budget represents a good value for the work and natural resource benefit achieved.

Reviewers provide favorable ratings for cost-effective projects, with accurate cost estimates, which can equitably leverage multiple funding sources. The application should have a complete, reasonable budget that is consistent with the tasks described in the scope of work.

Using the areas below, please provide:

- A budget for the project including total cost for the project broken down into tasks.
 - i. Additional lines may be added to the Proposed Project Budget table if necessary.
 - ii. Applicants may instead provide a separate budget if a more detailed one is available.
- Identify the match sources and their status.

Proposed Project Budget	
Task elements	Total Project Cost
1. Project Administration & Management	\$ 10,000.00
2. Mobilization/Demobilization for both treatments	\$ 70,000.00
3. 1 st Alum Treatment-77,490 gallons at dosage of 42 g/m ²	\$ 153,430.20
4. 2 nd Alum Treatment-77,490 gallons at dosage of 42 g/m ²	\$ 197,283.80
Total costs needed to complete:	\$ 431,251.00

In addition to the proposed budget above, please provide the following information:

Total Project Cost	\$ 431,251
Natural Resources Opportunity Grant request	\$ 25,000

Match sources:

List other funding sources and amounts, including local cash matching funds

Funding Source: BWSR Clean Water Legacy Grant	\$ 345,000
Funding Source: Three Rivers Park District	\$ 25,013
Funding Source: Pioneer-Sarah Creek Watershed Management Commission	\$ 21,563
Funding Source: City of Minnetrista	\$ 14,675

Part 2

Natural Resources Opportunity Grant Program

Describe the status (secured or unsecured) of matching funds:

Project funds that have already been secured for the project include the following:

1. The project received Clean Water Legacy Grant funds from the Board of Water & Soil Resources in 2022. The BWSR Clean Water Legacy Grant requires a 25% match in funds from the different partners.
2. A Cooperative Agreement among Three Rivers Park District, Pioneer-Sarah Creek Watershed Management Commission, and City of Minnetrista has already been signed securing the partnership match funds for the project that has been identified in the project cost-share section.

The Hennepin County Opportunity Grant application is requesting \$25,000 to help supplement the 25% match dollars that is required for the BWSR Clean Water Legacy Grant Funds. If the requested Hennepin County Opportunity Grant funds were secured, then the total partnership cost-share amount would be sufficient to completely fund the 2nd alum treatment.

3. PROJECT NEED AND BENEFIT

Evaluation Criteria
Severity of the problem/need is well documented.
Project will achieve substantial natural resources benefits, including (but not limited to) erosion prevention, pollutant (e.g. sediment, phosphorus) runoff reduction, wildlife habitat protected or restored, or climate impacts mitigated for.
Project success has been measured, and proposed methods to measure success are reasonable.
The Project provides long-term sustainability of natural resource benefits (e.g. operation and maintenance, long-term follow-up, natural resources management), and/or identifies additional projects to address specific problems area(s).
Project provides significant community benefit, such as creating a community amenity, addressing socioeconomic or racial disparities, or addressing inequities and environmental justice needs.

Reviewers provide favorable ratings for projects that address one or more documented severe natural resource problems and/or needs over the project lifetime. Projects with measurable improvements receive more favorable ratings than those with unclear or vague benefits. Reviewers will consider the actual benefit, the level of implementation, and the severity of the problem. Reviewers will consider only changes that can be achieved by the proposed scope of work within available budget.

Using the area below, please provide:

- A detailed description of the severity of the problem or need to be addressed by the project.
 - Include how the problem has been documented in a plan or assessment (e.g., Total Maximum Daily Load (TMDL) study, watershed organization or city plan, or presence on Minnesota's 303(d) impairment list).
 - Describe how the problem will be addressed by the project and how success will be measured.
 - Describe any anticipated community benefits.

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Natural Resources Opportunity Grant Program

Whaletail Lake is identified as a sentinel lake in the approved PSCWMC 3rd & 4th Generation Watershed Management Plan (2015 & 2020). The lake was listed on the MPCA's 303(d) impaired list for aquatic recreation due to excessive nutrients (South basin-2006 & North basin-2008). A WRAPS/TMDL study was completed for Whaletail Lake as part of the Pioneer-Sarah Creek Watershed WRAPS/TMDL approved by the EPA in 2017. It was determined from the WRAPS/TMDL study that phosphorus was the limiting nutrient affecting the surface water quality of the lake. The PSCWMC TMDL for the Whaletail Lake-South basin indicated a 34% (180 lbs/year) reduction in total phosphorus load (529 lbs) was required to meet the deep lake phosphorus standard (40 µg/L). Internal phosphorus loading (424 lbs) represented 80% of the total P-load (529 lbs) affecting the surface water quality in the South basin. The TMDL implementation plan recommended an alum treatment for the South basin to target at least a 43% (180 lbs) reduction in internal load to meet water quality standards. An alum feasibility study was completed (2022) to determine an alum dosage necessary to bind at least 90% of the redox-sensitive phosphorus released from the upper 6-cm sediment layer to ensure the long-term effectiveness for 20-years. The prescribed alum dose will reduce internal P-loading by 381 lbs/year, which is significantly more than the TMDL load reduction (180 lbs/yr) required to achieve water quality standards for the South basin. The internal load reduction would result in an in-lake P-concentration of 26 µg/L achieving the desired water quality outcome for meeting the state P-standard (40 µg/L).

The South basin alum treatment would also provide a secondary water quality benefit for the North basin. The South basin phosphorus load (108 lbs) accounts for 26% of the watershed load (411 lbs) and 13% of the total load (801 lbs) identified in the TMDL for the North basin. The PSCWMC TMDL for the North basin recommended a 20% (21 lbs) reduction in the South basin watershed load that would account for 10% of the total load reduction (212 lbs-26%) required to meet the shallow lake phosphorus standard (60 µg/L). Based on the Whaletail Lake South basin alum feasibility study, it was estimated that the anticipated South basin water quality improvements would reduce P-loading to the North basin by 52 lbs/year, which will exceed the desired South basin watershed load reduction (21 lbs) identified in the North basin TMDL. The South basin watershed load reduction represents approximately 24% of the load reduction that was identified to meet state P-standards in the North basin TMDL. Since the TMDL was completed in 2017, a recent review of the water quality data (as part of the Whaletail South basin Alum feasibility study) indicated that the North basin water quality has improved and has been meeting the phosphorus standard the past 5-years. The anticipated water quality improvements in the South basin would ensure that the North basin will continue to meet standards for the basin to be eventually removed from the impaired water's list.

The water quality improvements will have additional holistic benefits to the entire lake aquatic ecosystem. It is anticipated that there will be changes in the plant community in response to water clarity improvements after the alum treatment project. Increased water clarity should expand the depth of rooted aquatic plant growth increasing the effective littoral zone of the lake. An adaptive management approach may require consideration for controlling invasive species and expanding the native plant community. The establishment of a diverse native plant community will have water quality benefits (especially for plant dominated shallow basins) that provide more resilient aquatic ecosystem considering periodic large run-off events anticipated with future climate change. A diverse aquatic plant community also enhances habitat for the fish population and other aquatic invertebrate species. There will be less frequent severe algae blooms with improved water clarity in response to reduced in-lake P concentrations. These conditions are more desirable for fishing, boating, and aesthetic viewing activities. Lower phosphorus concentrations should also decrease the severity of blue-green algal generated toxins that have become an increased risk/threat to human and animal health due to warmer climate temperatures.

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Natural Resources Opportunity Grant Program

The Three Rivers Park District will be administering the Whaletail Lake-South basin alum treatment project on behalf of the PSCWMC. Three Rivers Park District has successfully completed similar alum treatment projects that have successfully removed lakes from the MPCA's Impaired Water's List (i.e. Fish Lake, Lake Rebecca, and Hyland Lake). The alum application would be contracted with a consultant that has successfully provided similar services on past projects. Three Rivers Park District completed the Whaletail Lake-South basin alum feasibility study, which includes a post-alum application monitoring plan to ensure the longevity and effectiveness of the treatment. The post-alum monitoring program will assess and document changes in water quality to ultimately remove the lake from the MPCA Impaired Water's List; and will also monitor changes in potential sources of phosphorus loading that may compromise the longevity and effectiveness of the alum treatment. Alternative sources of phosphorus loading (watershed, senescence of curly-leaf pondweed, and carp) were monitored and evaluated as part of the WRAPS/TMDL study and the Whaletail Lake South basin Alum Feasibility study; and were found to have minimal impact on the existing lake surface water quality as well as potentially affecting the future alum treatment longevity and effectiveness. A conservative estimate of the overall longevity and effectiveness of the treatment would be approximately 20-years based on the prescribe target dosage of alum (84 g/m²). It should be noted that the analysis should not be interpreted as the exact life of the alum treatment because it is difficult to predict changes and impact other sources of phosphorus may have on alum longevity. Monitoring the alternative sources of phosphorus loading will continue as part of the post-treatment monitoring plan. In addition, the sediment phosphorus release and alum binding capacity of the phosphorus in the sediments will be periodically monitored to ensure the longevity and effectiveness of the treatment. An adaptive management approach will need to be considered if these alternative sources of phosphorus loading and alum binding capacity begin to significantly impact water quality and treatment longevity.

The anticipated long term water quality improvements on the lake will certainly benefit the various recreational opportunities that Whaletail Lake has to offer. Three Rivers Park District operates Gale Woods Farm Regional Park (410-acres) located on the South basin. Metropolitan Council annual use estimate for Gale Woods Farm was approximately 98,000 public visitors in 2021. Gale Woods Farm features a unique education opportunity that offers public programs for visitors to gain an understanding of agriculture, food production, and land stewardship. Three Rivers Park District has been committed to providing inclusive and equitable access to outdoor recreational programs and activities to under-represented communities through the implementation of the 2040 System Plan. This project would provide additional educational and program opportunities to showcase the project's water quality benefits. Three Rivers Park District will be hosting the Fall Festival on October 7th and 8th in 2023 at Gale Woods Farm, which will highlight the water quality improvements from the 1st half-dose alum treatment on Whaletail Lake-South basin. The Park also includes water based recreational features consisting of 1.9 miles (29%) of undeveloped natural shoreline providing handicap accessible canoe access and a fishing pier. Additional amenities that Gale Woods Farm provides is a spectacular view of the lake that include picnic areas, a pavilion, and numerous hiking trails. The lake has a DNR operated/maintained public access (located on the North basin) making it a popular fishing and boating destination in the western Hennepin County area. The project will remove the lake from the impaired waters list providing both statewide and local community benefit. A partnership with the City of Minnetrista and Pioneer-Sarah Creek Watershed Management Commission has already been established to further assist with local community relations for support of the project; and both have undertaken various water resources initiatives in stormwater management and responsible stewardship that will increase awareness of these issues with watershed residents and the broader public.

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Natural Resources Opportunity Grant Program

4. PROJECT TEAM

Evaluation Criteria
Team members are all listed, with roles and responsibilities that are well defined and expected contributions to the project are adequate for the scope of work.
Team members' qualifications and past experiences are relevant.

Reviewers provide ratings based on skills, qualifications, and experience of the project team members.

Using the area below, please provide:

- List contact information for the partners, staff, and volunteers who will implement the project as outlined in the scope of work.
- Briefly describe their relevant skills, qualifications, past experiences, and expected contributions for this project (*do NOT submit resumes*).

- Three Rivers Park District – Brian Vlach – Senior Manager of Water Resources – (763) – 694- 7846 – Brian.Vlach@ThreeRiversParks.org – Employee of the Water Resources Department for Three Rivers Park District the past 24 years. Responsible for coordination, implementation, and monitoring several different alum treatments projects for the Park District (i.e. Fish Lake (27011800), Lake Rebecca (27019200), and Hyland Lake (27004800). Administrative responsibilities pertaining to the proposed project include completion of the WRAPS/TMDL study and Whaletail Lake – South basin Alum Feasibility Study, implementation of the formal bid process, awarding contract for the project services, working with contractor to ensure project is completed according to design specifications, working with and updating project partners, performing post project inspections, and coordinating pre and post-treatment monitoring assessment efforts to ensure meeting target project objectives and goals. Three Rivers Park District will be providing technical expertise as well as cost-share funding to complete the project.
- Pioneer-Sarah Creek Watershed Management Commission – Amy Juntunen – Administrator – (952)–553- 1144 – Amy@Jass.biz - Responsible for implementation of the Pioneer-Sarah Creek 4th Generation Watershed Plan and protecting the water resources for the Pioneer-Sarah Creek Watershed. Coordinates with the six cities serving under the joint-powers watershed management organization agreement. Commission administers the Capital Improvement Program and shares in the cost of implementation projects. Commission was the applicant for the Board of Waters and Soil Resources Clean Water Legacy grant for this project; and will be instrumental in coordination of efforts to secure funding for the project, grant execution, work plan development, and annual reporting. Commission will be providing any additional necessary support that will be needed for the implementation and completion of the project. Pioneer-Sarah Creek will financially contribute to the cost-share funding of the project.
- City of Minnetrista - Jasper Kruggel – Administrator for City of Minnetrista – (952)-241-2511 – jkruggel@ci.minnetrista.mn.us – City of Minnetrista undertake various initiatives in stormwater management and responsible stewardship of water resources that will increase awareness with watershed residents and the broader public. The City of Minnetrista will be responsible for coordinating stakeholder community engagement portion of the project, and assist with local community relations for support of the project. The City of Minnetrista will also financially contribute to the cost-share funding of the project.

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Natural Resources Opportunity Grant Program

5. PROJECT DEVELOPMENT PROCESS/ LOCAL COMMITMENT

Evaluation Criteria
A comprehensive decision-making process was used to arrive at the proposed project.
The level of local support and commitments from project partners is documented
A collaborative process will be implemented to execute the project.

Reviewers provide favorable ratings for projects that demonstrate a clear path from project idea to implementation and that have actively engaged each of the necessary partners and other stakeholders to reasonably anticipate success. Provide documentation as appropriate.

Using the area below, please provide:

- Describe the decision-making process used to select the project (i.e. why was this project chosen over other solutions).
- List where the proposed project is identified as a priority by a local, state, or federal unit of government that manages natural resources (e.g., state approved watershed management plan).
- Describe how you have involved and fostered local, regional, and statewide partnerships for the success of the project.

Whaletail Lake was listed on the MPCA's 303(d) impaired water's list for aquatic recreation due to excessive nutrients (South basin-2006 & North basin-2008). The lake was identified as a priority sentinel lake in the PSCWMC 3rd & 4th Generation Watershed Management Plans (2015 & 2020). A WRAPS/TMDL study was completed for Whaletail Lake as part of the Pioneer-Sarah Creek Watershed WRAPS/TMDL approved by the EPA in 2017. The TMDL study indicated that internal phosphorus loading was the primary source of phosphorus load affecting the surface water quality for the South basin of Whaletail Lake and recommended an alum treatment as the best management approach to meet state water quality standards. Based on the results of the TMDL's recommendation, the PSCWMC 4th Generation Watershed Management Plan identified the Whaletail Lake-South basin alum treatment as a capital improvement project (Section 4-pages 4-14 & 4-15) as a priority to delist the lake from the MPCA Impaired Water's List (Section 4-pages 4-3). The proposed project also aligned with the statewide priorities referenced in the Nonpoint Priority Funding Plan to restore those waters that are closest to meeting state water quality standards as well as restore and protect water resources for public use and public health. The Whaletail Lake South basin alum treatment project was approved by the members of the PSCWMC Technical Advisory Committee. The proposed project will fully accomplish the load reductions called for as part of the WRAPS/TMDL study and 4th Generation Watershed Management Plan. The alum treatment will have significant lake-wide benefits by reducing internal loading while bringing the South basin of Whaletail Lake into compliance with state water quality standards. The alum treatment for the South basin will also provide a secondary water quality benefit for the North basin of Whaletail Lake.

A feasibility study for the South basin of Whaletail Lake was completed in 2022 as an approval requirement by the Minnesota Pollution Control Agency. The cost-benefit analysis of the feasibility study was taken into consideration for selecting the project as a priority. The feasibility study estimated the alum treatment will reduce internal load by 381 lbs/year with a long-term effectiveness for at least 20-years based on the prescribed alum dosage. The estimated cost of the alum treatment is \$431,251 with a cost-benefit of \$57 per pound of phosphorus removed when considering the P-load reduction and alum longevity. The cost-benefit analysis does not take into consideration the secondary benefit of improving water quality of the North basin

Part 2

Natural Resources Opportunity Grant Program

of Whaletail Lake. The cost benefit analysis of the alum treatment is considerably lower compared to the cost of implementing watershed BMPs ranging from hundreds to thousands of dollars per pound of phosphorus removed.

Other factors that were considered in the WRAPS/TMDL and feasibility study when identifying the project as a priority included the evaluation of alternative sources of loading (watershed, curly-leaf pondweed, and carp) that may impact alum longevity and effectiveness. These other sources of loading were found to have negligible impacts on affecting surface water quality of the South basin. The implementation of watershed BMPs wasn't considered a cost-effective management approach since estimated unit-area loads (0.10 lb/acre/year) were already comparable to parkland and open space land use conditions. The South basin watershed is represented as 36% natural park reserve (Kingswood Park and Gale Woods Farm) and 26% as natural wetland areas. In addition, the Whaletail Lake-South basin receives water from Little Long Lake in Kingswood Park, which has some of the best water quality in Hennepin County. Kingswood Park also has a conservation easement that limits future development and provides critical habitat while protecting downstream water quality. There is more of an opportunity to focus watershed BMP implementation for the North basin since agricultural areas represent 31% of the land use. The PSCWMC is committed to implementing BMPs in the watershed, but the impact of those improvements is relatively small compared to load reductions needed to meet state phosphorus standards. In addition, the management of curly-leaf pondweed and carp as a potential sources of in-lake phosphorus loading were also considered as part of the alum feasibility study. The study concluded that curly-leaf pondweed and carp biomass were not currently at levels that would impact water quality, cause ecological damage, or decrease longevity/effectiveness of an alum treatment.

Based on the results of the feasibility study, the Whaletail Lake-South basin is an excellent candidate for the implementation of an alum treatment. A post-alum treatment monitoring plan has been developed as part of the alum feasibility study to monitor changes in water quality to remove the lake from the impaired water's list; and monitor changes in the alternative sources of loading that may affect surface water quality to ensure the longevity and effectiveness of the alum treatment. An adaptive management approach will need to be considered if these other potential sources of phosphorus loading are shown to have a future impact on water quality or alum longevity.

The Whaletail Lake-South basin alum treatment project has received support from several different local, regional, and statewide agencies. Project partners have already fully committed to the Whaletail Lake-South basin alum treatment. The project has already received a Board of Water and Soil Resources Clean Water Legacy grant funding for the project. The project was also presented at the City of Minnetrista Council Meeting (April 2022 & May 2023) to further establish partnership and assist with local community relations for support of the project. The City of Minnetrista coordinated the stakeholder community engagement portion of the project and assisted with local community relations by contacting and educating individual shoreline homeowners about the project. The City of Minnetrista Council members also approved a financial commitment to provide cost-share support toward the project. A Cooperative Agreement has already been signed securing partnership funding for the project from Three Rivers Park District, Pioneer-Sarah Creek Watershed Management Commission, and City of Minnetrista. In addition to securing funding for the project, the feasibility study received project approval by the Minnesota Pollution Control Agency. The Minnesota Department of Natural Resources has also already issued a permit to allow for mobilization and staging at the public access on the North basin of Whaletail Lake. This partnership commitment to the project was needed to implement the 1st half-dose of the alum treatment and has already been established to complete the 2nd half-dose of the project. Since the 1st half-dose alum treatment was completed, the South basin of Whaletail Lake has been meeting water quality standards. Securing the requested Hennepin County Opportunity Grant funds would further enhance project partnership relations and ensure the lake will receive the remaining portion of the prescribed alum dosage to remove the lake off the impaired water's list as well as for the long-term effectiveness of the project.

Part 2

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6. READINESS TO PROCEED

Evaluation Criteria
Project elements are in place for the project to proceed and documentation is provided (e.g. planning, design, and permits).
Necessary stakeholders are either on project team or have provided sufficient support for project to move forward expediently.

Reviewers provide ratings based on how soon a project can begin construction and how efficiently the project can proceed to completion, especially through early stages. A project does not need to begin immediately after the grant award, but must begin soon enough that the project can complete well within the grant agreement period.

Using the area below, please provide:

- Describe the steps you have taken to coordinate partners and activities that would allow the project to proceed immediately after grant award. Provide information and documentation on project elements such as status of designs, permits, cross- or inter-agency agreements, landowner agreements, easements, other secured funding, and staff or agency approvals.

The Whaletail Lake-South basin alum treatment project has received support from several different agencies and steps have been taken to ensure that the project implementation can proceed. The Whaletail Lake-South basin alum treatment has been approved by the PSCWMC Technical Advisory Committee and has already been identified as a Capital Improvement Project within the PSCWMC 4th Generation Watershed Management Plan. An alum feasibility study was completed to determine alum dosage, application strategy, estimated load reduction, anticipated lake response, alum longevity, cost-benefit analysis, and long-term monitoring plan (August 2022). The MPCA reviewed the feasibility study as the regulatory authority of the project, and approval has already been issued for implementation of the project. The Minnesota Department of Natural Resources also issued a permit for the mobilization and staging of the project to occur at the public access. The project also received Board of Water and Soil Resources Clean Water Legacy Grant funding. The BWSR Clean Water Legacy grant agreement has been fully executed with the PSCWMC (March 2023). The BWSR grant agreement requires a 25% cost-share match contribution from the agencies/partners implementing the project. The project was presented at the City of Minnetrista Council Meeting (April 2022) to establish initial partnership support for the project; and presented at a follow up City of Minnetrista Council Meeting (May 2023) to finalize cost-share partnership and assist with local stakeholder community relations for support of the project. The Three Rivers Park District coordinated and administered the execution of the cost-share contract agreement to secure the funding needed for the project from the Pioneer-Sarah Creek Watershed Management Commission, City of Minnetrista, and Three Rivers Park District. The Three Rivers Park District also prepared the bid package and solicited quotes from responsible contractors to conduct the 1st half-dose of the alum treatment. Three Rivers Park District administered the implementation and completion of the 1st half-dose alum treatment from May 23rd through May 25th in 2023. The 1st half-dose alum treatment was successful where the South basin of Whaletail Lake is currently meeting the water quality standards in 2023. All of the permits and cost-share agreements for the implementation of the project are still in place and valid for the project to proceed with the 2nd half-dose alum treatment. Three Rivers Park District will have to prepare a new bid package to solicit quotes from responsible contractors, and a contract will be awarded for the implementation of the 2nd half-dose alum treatment in May of 2024. This grant application is requesting additional Hennepin County Opportunity Grant funding to partner and cost-share on the 2nd half-dose alum application to ensure the long-term effectiveness of the treatment.

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THIS CONCLUDES PART 2