BROWN'S CREEK WATERSHED DISTRICT

455 HAYWARD AVE N
OAKDALE, MN
55128

651.330.8220 X26 [PHONE]
651.330.7747 [FAX]
WWW.BCWD.ORG

REGULAR & ANNUAL MEETING OF THE BOARD OF MANAGERS
Wednesday, January 11, 2023 at 6:30 PM

NOTE MEETING LOCATION
Regular Board Meeting will be held at
Family Means
1875 Northwestern Ave, Stillwater, MN 55082

1) Approve Annual Business and Regular Meeting Agenda and Discussion Agenda **-Board Action**

2) Call Annual Business Meeting to order @ 6:30PM
   a) Approve Annual Meeting Agenda **- Board Action**
   b) Election of Officers **- Board Action**
   c) Board committee Appointments **- Board Action**
   d) Annual selection of depository bank - Board Action
   e) Annual Selection of permit security depository for bonds, letters of credit and cash escrows - **- Board Action**
   f) Annual Selection of Official Newspaper(s) **- Board Action**
   g) Schedule of Regular and workshop 2023 meetings - **- Board Action**
   h) Citizen Advisory Committee Membership - **- Board Action**
   i) Board Training Plan - **- Board Action**
   j) Bylaws and Policies Review
   k) Adjourn Annual Meeting

3) Call Regular Meeting to order

4) Public Comments

5) Consent Agenda – **Board Action** (*all items listed under the consent agenda are considered to be routine by the Board of Managers and will be enacted by one motion. There will be no separate discussion on these items unless a Manager removes an item from the consent agenda for discussion or there is a request to remove the item from the consent agenda, in which event the board will consider whether to remove the item from the consent agenda and consider it separately.*)
   a) Approve Board Meeting Minutes of the December 14, 2022 Regular Meeting
   b) Accept Permit Fee Statement
   c) Approve water monitoring equipment repair scope
   d) Authorize Administrator to execute Minnesota Pollution Control Agency grant agreement in the amount of $320,705.50 upon advice of counsel

6) Treasurer's Report
   a) Review Authorized Funds Spreadsheet
   b) Current Items Payable-**Board Action (Roll Call Vote)**

7) Service Agreements 2023
   a) Washington Conservation District service agreement 2023-24 **– Board Action**

b) Selection of Services **– Board Action**
   (1) Accounting
   (2) Audit
   (3) Legal
   (4) Engineering

8) Projects
   a) Best Management Practices Program: Stewardship Grants and Maintenance Presentation
   b) Vegetation Survey Results: Benz, South School Section & Goggins Lakes Presentation
   c) Iron Enhanced Sand Filter
      (1) Harvest Pond Cleanout: contractor selection – **Board Action**
      (2) 2023 Operation and Maintenance Engineering Scope **– Board Action**

9) Discussion Agenda - No Action Required
   a) Updates
      (1) Administrator – Boundary Revision Status, Conservation Partners Legacy Grant, District Large Ponds Community Meetings
      (2) Legal
      (3) Engineer
      (4) Managers
   b) February 2022 Regular and Annual Meeting BCWD Board Agenda and Location

10) Adjournment

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MEMORANDUM

TO: BCWD Board of Managers
FROM: Karen Kill
RE: 2023 Annual Business Meeting
DATE: January 4, 2023

Annual Meeting. The regular meeting of the Board in January each year will be the annual business meeting. In addition to any other business which may come before this meeting, the Board will designate the depository or depositories for District funds and financial assurance instruments submitted to the District, adopt a schedule of regular meetings for the year, and select officers. The schedule of regular meetings will be filed in the records of the District.

b) **Election of Officers**

The Board will, at the District's annual meeting, elect from among its members the following officers: President, Vice President, Treasurer and Secretary. An officer will serve until replaced by the election of a successor. No board member may hold more than one office at a time, but the Board may, at its discretion, name a Second Vice President.

Existing slate of Officers:

Klay Eckles – President
Celia Wirth – Vice President
Gerald Johnson– Treasurer
Chuck LeRoux – Secretary
Rob McKim – Manager

c) **Board Subcommittee Appointments (Per Diems Approved for Attendance)**

- Citizen Advisory Committee Liaisons – Celia Wirth (Charles LeRoux as alternate)
- Technical Advisory Committee Liaison – Klayton Eckles
- East Metro Water Resources Education Program Liaison – Administrator primary, Board Manager Gerald Johnson as necessary
- Best Management Practices Program Subcommittee – Gerald Johnson
- Bylaws and Policies – Celia Wirth
- MAWD Board Liaison – Vacant
- Metro MAWD Liaison – Celia Wirth; alternate Charles LeRoux
- Lower St Croix One Watershed One Plan – Klayton Eckles; alternate Gerald Johnson

d) **Annual Selection of Bank and Location of Financial Assurance Instruments**

Current bank is US Bank for savings and checking and selected as official bank in 2022. Have held CD's in Royal Credit Union in 2022.

Permit Deposit Fees and Cash Escrows were held in a separate savings account at US Bank. Other financial assurance instruments (such as letters of credit or performance bonds) were held at the BCWD office in a fireproof safe.

e) **Annual Selection of Official Newspaper**

In 2022, White Bear Lake Press and the Stillwater Gazette were selected as the official newspapers and postings for requests for qualifications were listed in the Minnesota State Register. The St. Croix Valley Press is no longer an option for District notices.

f) **Regular Meeting Dates**

Second Wednesday of the Month at 6:30 PM
Based on the Brown's Creek Watershed District president's determination pursuant to Minnesota Statutes section 13D.021, subdivision 1, that it was not prudent to meet in person because of health concerns raised by the COVID-19 pandemic, the meeting was held electronically, via webcast. When in person meetings can resume, they will be planned for Family Means, 1875 Northwest Ave S, Stillwater in the large conference room:

Dates:
January 11, 2023
February 8, 2023
March 8, 2023
April 12, 2023
May 10, 2023
June 14, 2023

July 12, 2023 - Special meeting: 2023 Budget Workshop 5-6:30pm *and Regular Meeting*
August 9, 2023 - Special meeting: 2023 Budget Workshop 5-6:30pm and Regular Meeting
September 13, 2023 – Special meeting: 202 Community Event at Brown's Creek Park in Stillwater 10am-1pm
September 16, 2023
October 11, 2023
November 8, 2023
December 13, 2023

g) **Citizen Advisory Committee**

The Board may appoint committees and subcommittees for the purpose of assisting the Board in the performance of its duties. Except for a Board member appointed to a committee, no other member of a committee may make motions for consideration or vote on matters put before the Board.

- *Citizens Advisory Committee. There is established, in accordance with Minnesota Statutes section 103D.331, a citizens advisory committee to the Board of Managers. The committee will be known as the Citizens Advisory Committee (CAC). The CAC will advise the Board of Managers on water-related community concerns and issues, and assist with the development and implementation of the education and*

outreach activities of the District. The CAC will meet according to a schedule set annually by the members of the CAC, and at such other times as may be determined by a majority of the members. All meetings of the CAC are open to the public.

Residents that have actively engaged in 2022:

Anne Maule-Miller – Co-Chair
George Vania – Co-Chair
Jyneen Thatcher
Yihong Gao

Tentative 2023 CAC meeting dates (2nd Monday of even months 6:30-8PM via webcast)

Feb 13, 2023
Apr 10, 2023
June 12, 2023
Aug 14, 2023
Oct 9, 2023
Dec 11, 2023

h) **BCWD Board Training – discuss possible training topics & and whether eligible for per diem/expenses**

- Washington County Water Consortium monthly meetings
- Legislative Water Commission monthly Meetings
- MAWD Day at the Capitol (Feb), Summer Tour (June), and Annual Meeting (Dec)
- Metro MAWD quarterly meetings
- Water Resources Conference (Oct)
- Internal Trainings
    - The new proposed federal Waters of the United States rule – effects in/on BCWD
    - Managers' FAQs – what questions do you have about your role?
    - Review of the Reasonable Use Doctrine
    - Diversity, Equity, and Inclusion
    - Board Communication

i) **Annual Review of BCWD Bylaws and Policies -** No proposed changes in 2023

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DRAFT Minutes of the regular meeting of the Brown's Creek Watershed District Board of Managers, Wednesday December 14, 2022

ROLL CALL

Managers Present:	**Others Present:**
Celia Wirth, Vice President	Karen Kill, BCWD Administrator
Rob McKim, 2nd Vice President	Camilla Correll, EOR, BCWD Engineer
Charles LeRoux, Secretary	Michael Welch, Smith Partners, BCWD counsel
Gerald Johnson, Treasurer	Cameron Blake, BCWD staff
	Kevin Biehn, EOR, BCWD Engineer
Manager Absent:	Stu Grubb, EOR, BCWD Engineer
Klay Eckles, President	

1) Call Regular Meeting to Order

Vice President Celia Wirth called the regular meeting to order at 6:30 p.m.

2) Approve Agenda

Manager McKim moved, seconded by Manager LeRoux, to approve the agenda as presented. Motion carried, vote 4/0.

3) Public Comments

None

4) Consent Agenda

Manager Johnson moved, seconded by Manager LeRoux, to approve the consent agenda as presented:

a) Approve board meeting minutes of the November 7, 2022 regular meeting as amended
b) Accept permit fee statement
c) Approve GM Contracting Pay Request #1 for Applewood Hills Golf Course Reuse Project
Motion carried 4/0.

5) Treasurer's Report

a) Review Authorized Funds Spreadsheet

Manager McKim moved, seconded by Manager Johnson, to accept the authorized funds spreadsheet as presented. Motion carried 4/0.

b) Approve MNL Pay Request #2 for the Brown's Creek Riparian Restoration at Millbrook HOA

Karen Kill explained that the managers did not delegate to her the authority to approve a change order for this project. There is a requested change order to increase the total by $1,100 to account for a second mobilization, needed because of nesting eagles during the initial project work.

Manager McKim moved, seconded by Manager Johnson, to approve change order #1 and MNL Pay Request #2 for the Brown's Creek Riparian Restoration at Millbrook HOA. Motion carried 4/0.

c) Current Items Payable

Manager Johnson moved, seconded by Manager Wirth, to approve payment of bills as presented in the amount of $224,900.09.

	Yea	Nay	Abstain	Absent
Manager Eckles				X
Manager Johnson	X			
Manager LeRoux	X			
Manager McKim	X			
Manager Wirth	X			

Motion carried 4/0.

Manager Jerry Johnson presented the treasurer's report and noted that the second half of the 2022 tax levy has been deposited.

6) Projects

a) Mendel Wetland - monitoring report presentation

Kevin Biehn presented the Mendel wetland 2022 groundwater data summary. This potential restoration opportunity involves plugging a non-jurisdictional historic ditch to restore hydrology with an 18-inch stop log structure to improve vegetation quality in the 85-acre wetland. The project would be located entirely on private property. One landowner who actively grazes cattle on his land was concerned about the potential impact of this project to the grazable area. The district engineer monitored the groundwater in 2021 and continued in 2022 to collect data to assess the lateral hydrologic effect of the ditch and make a recommendation on the feasibility of the project. Stu Grubb said they have collected sufficient data to confirm the lateral ditch effect was found to be 50 feet, and confirmed the proposed project would benefit wetland vegetation without impacting the six landowners. Mr. Biehn said he would not recommend banking any wetland credits created if BCWD pursues the restoration project .

Administrator Kill asked whether, given that the lateral effect of the ditch is only 50 feet, there be enough potential benefit to the wetland to recommend proceeding. Mr. Biehn stated yes, there would be a positive impact to the wetland function and value. There are high value floristic species in the tamarack bog remnant portions of the wetland that would benefit from improved hydrology. There will likely not be a large water quality benefit. The project will still have a measurable flood and thermal reduction, but they would be secondary benefits.

The managers discussed potential benefit of the grazing activity as invasive species management. No soil testing has been conducted to evaluate the potential impact grazing

could have had on nutrient values in that area of the wetland, but Mr. Biehn does not feel that continued grazing on 15 acres of the wetland is a concern.

Mr. Biehn stated that the next step would be gauging landowner interest in this project now that the district can speak to potential impacts to property. The district should carefully consider the return on investment of this project before offering payment for easements. The managers discussed how to approach next steps; whether to spend more money on project design to have more information to discuss with landowners, or to gauge landowner interest before spending additional money on planning.

Michael Welch explained that the district may only need one easement for construction and access on two properties and it may not even need to be permanent. There are other options the managers can consider under common law pertaining to property use, but he advises to talk to landowners first.

The managers agreed to proceed with contacting landowners to discuss the project.

7) Budget

a) Public Meeting regarding 2023 Budget and Levy

No member of the public was in attendance to comment on the budget and levy.

b) Resolution 22-05 Final 2023 Budget and Levy

Manager Johnson moved, seconded by Manager Wirth, to approve Resolution 22-05 2023 Final Budget & Certified 2023 Tax Levy Resolution: All Funds.

	Yea	Nay	Abstain	Absent
Manager Eckles				X
Manager Johnson	X			
Manager LeRoux	X			
Manager McKim	X			
Manager Wirth	X			

Motion carried 4/0.

8) Discussion Agenda

a) Updates

(1) Administrator

a. Decompaction of soils post-construction

Ms. Kill stated that BCWD's rules allow applicants in some cases to provide a decompaction plan in lieu of designing stormwater systems to treat runoff due to increased compaction on pervious surfaces. In practice, the plan is not always communicated to builders, the enforcement window is short, and decompaction does not occur consistently. The district has accepted photos as proof of decompaction, as well as visual inspection during the work. Mr. Welch gave an example of another watershed district that has decompaction criteria and a tool to measure the compaction of soils.

Administrator Kill is seeking board direction on how to proceed when decompaction has not been completed on individual building sites within permitted developments. In the example of Marylane Meadows,

decompaction was not completed and the district worked with the developer to amend the permit to make changes to the infiltration basin to accommodate additional runoff. The managers agreed that staff should work with builders to extent possible, but the developer should ultimately be held responsible for any shortfalls in the compliance with the stormwater management.

Administrator Kill asked that the board consider revisions to the decompaction options during the next rule revision.

b. Minnesota Association of Watershed Districts Annual Meeting

Ms. Kill reported that the MAWD strategic plan was approved. She also learned about a personality/communication style assessment in a pre-conference workshop that may be of interest for the managers to complete along with BCWD staff. Some of the talks of interest included a permitting soil compaction approach and approaching chloride reduction from a design standpoint. Administrator Kill noted the watershed program of the year was awarded to a chloride program from Hennepin County that requires snow management and salt plans, and for salt applicators to be SMART-salt certified.

c. Single Family Home Permitting

President Klayton Eckles' feedback has been received by staff. The next steps are an internal meeting with President Eckles, then a board workshop in February.

d. Financial Assurance Reductions

Administrator Kill updated the managers that one financial assurance reduction was completed since the last board meeting for the White Oak Savannah development. BCWD engineers were comfortable with this reduction after reviewing the survey showing the stormwater facility progress onsite.

e. Minnesota Pollution Control Agency Climate Resiliency Planning Grant Application

The district submitted a joint climate resiliency planning grant last year, but did not receive funding. Staff are requesting to resubmit individually this year. The board has already budgeted $52,000 towards this effort in 2023. The managers agreed to submit the grant application.

(2) Legal

Mr. Welch noted the next board meeting is the district's business meeting. He does not have any policy or bylaw changes to recommend. Manager Wirth is the designated board manager for governance discussions. The managers will consider the two-year service proposals for engineering, accounting, auditing, and legal services. Managers Johnson and Wirth volunteered to review the proposals.

(3) Engineer- no comments

(4) Managers
Manager Rob McKim inquired as to whether Washington County is making progress on appointing his replacement. Administrator Kill she hasn't received any update.

b) January 11, 2022 Regular Meeting BCWD Board Agenda
Managers Eckles, Wirth and Johnson are all planning to attend the January meeting. Manager LeRoux will be absent. McKim may not be in attendance.

9) Adjournment
Manager McKim moved, seconded by Manager Johnson, to adjourn the regular meeting at 8:09 p.m. Motion carried 4/0.

Respectfully submitted by
Cameron Blake, BCWD staff and Charles LeRoux, Secretary

BROWN'S CREEK WATERSHED DISTRICT 1/11/2023 APPLICANT/PERMIT NO.	PERMIT DATE	RULES							TYPE				FEES OWED	
		2	3	4	5	6	7	Decomp action	GOV	SF RES	RES DEV	COM	EXEMPT	AMT DUE
Bergmann Development/Sanctuary Permit No. 05-12	10/14/2005	X	X	X			X				X			$ -
Cannon Parking - Trellis Weddings & Events Permit 11-14		X	X									X		($2,480.25)
Brown's Creek Preserve Permit 13-10		X	X	X			X				X			$10,954.70
National Guard Permit 13-19		X	X				X		X				$66,240.85	
Stillwater Medical Center Parking Permit 13-26		X	X				X					X		$3,039.10
Rutherford Station Permit 14-01	2016	X	X				X				X			$0.00
Brown's Creek Cove Permit 15-07		X	X	X			X				X			$163.41
Heifort Hills Permit 16-03		X	X	X	X		X				X			$741.74
Farms of Grant/White Oaks Savannah Permit 17-01		X	X	X			X				X			$15,514.24
The Lakes of Stillwater Permit 17-04		X	X	X			X					X		$574.15
West Ridge Permit 17-17		X	X	X			X	X			X			($1,554.63)
Heifort Hills Estates Permit 18-02		X	X	X			X	X			X			$38,545.21
Boutwell Farms Permit 18-04A		X	X	X			X	X			X			($1,212.45)
Hazel Place/Hertiage Ridge Permit 18-05 (Was 17-09)		X	X	X			X	X			X			($2,768.10)
Nottingham Village Permit 18-06		X	X	X			X				X			($541.83)
Ridgecrest Permit 18-11		X	X				X	X				X		$16.68
St Croix Valley Recreation Center Expansion Permit 18-14			X				X	X	X				$6,970.28	
Rogness Residence Permit 18-15	7/26/2018		X							X				$73.69
Central Commons Permit 19-05	11/11/2025	X	X	X			X	X				X		($5,000.00)
Hammel Residence Permit 19-09	9/25/2019		X							X				$384.79
TC_Orthopedics Permit 20-03	8/24/2020											X		$766.33
CSAH 15-36 Interchange Permit 20-08	3/24/2021 3 year approval		X			X	X		X				$19,160.35	

APPLICANT/PERMIT NO.	PERMIT DATE	RULES						TYPE				FEES OWED	
		2	3	4	5	6	7	Decompaction	GOV	SF RES	RES DEV	COM	EXEMPT	AMT DUE
Wahlquist Permit 20-10	9/10/2022		X								X			($1,078.88)
White Pine Ridge Permit 20-12	6/7/2021		X					X			X			($1,193.82)
Oak Drive - Vaillancourt Residence Permit 20-14	12/2/2020		X								X			$0.00
Boutwell Farms Lot 2 Permit 21-05	5/13/2021		X					x		x				($436.54)
Boutwell Farms Lot 4 Permit 21-06	5/13/2021		X					x		x				($788.82)
Brown's Creek Cove Lot 11 Permit 21-07	5/13/2021		X							x				$238.36
Brown's Creek Cove Lot 14- 1855 White Pine Ct Permit 21-08	5/13/2021		X							x				$260.64
Westridge Block 1 Lot 1 Permit 21-09 - NOPV, no permit received	8/6/2021		X					x		x				$2,063.42
White Oak Savannah Lot 107 Permit 21-11 -Sharkey	4/8/2022		X							x				($95.36)
Maryland Gateway Addition Permit 21-13		x	x				x				x			$1,505.86
Schwartz Residence Permit 21-15	5/6/2021 erosion control only	x	x							x				($319.38)
Ignagni Residence WOS B1L2 Permit 21-16	5/6/2021		x							x				($2.79)
Boutwell Farm (Lot 8)- Sharkey Permit 21-18	3/28/2022		x					x		x				($532.09)
Meron Residence-7950 Minar Ave Permit 21-19			x							x				$302.57
Westridge (Block 2, Lot 2) - Sharkey Permit 21-20	3/28/2022		x					x		x				($491.82)
Millbrook Park- City of Stillwater Permit 21-21	8/25/2021	x	x	x					x				$5,449.15	
Bond Residence Permit 21-22	8/12/2021		X	X						x				($354.77)
White Oak Savannah Lot 105- 7120 Lone Oak Trail Permit 21-24	8/18/2021		x							x				($260.56)
Warren Residence Permit 21-26			x							x				$17.68
Juliene/Guerinno Permit 21-28			x							x				$416.78
Lakeview EMS Permit 21-32			x									x		$15.50
Fahey Permit 21-34	11/4/2021		x							x				($743.78)
White Oak Savannah B2L2 Permit 21-35	12/8/2021		x					?		x				($1,088.25)

APPLICANT/PERMIT NO.	PERMIT DATE	RULES						TYPE				FEES OWED	
		2	3	4	5	6	7	Decompaction	GOV	SF RES	RES DEV	COM	EXEMPT	AMT DUE
White Oak Savannah B2L5 Permit 21-36	12/8/2021		x					?		x				($1,306.75)
Lyden Residence- 10155 119th St N, Grant Permit 21-37	12/1/2021		x	x						x				$0.00
White Pine Ridge 152 Northland Terrace Permit 21-38	tedly march/april 2022, called/made co		x					x		x				($509.46)
White Pine Ridge 454 Northland Terrace Permit 21-39	tedly march/april 2022, called/made co		x					x		x				($904.46)
White Pine Ridge 507 Northland Terrace Permit 21-40	tedly march/april 2022, called/made co		x					x		x				($906.19)
White Pine Ridge 256 Northland Terrace Permit 21-41	tedly march/april 2022, called/made co		x					x		x				($906.19)
White Pine Ridge 559 Northland Terrace Permit 21-42	tedly march/april 2022, called/made co		x					x		x				($906.19)
MNDOT TH-36 Permit 21-43	1/19/2022		x						x				$2,123.00	
Norell Ave N Improvements Permit 21-45		x	x				x		x				$10,183.74	
Wash Co. CSAH 15 Permit 22-01	3/142022		x						x				$971.22	
Gonyea (8 lots) Permit 22-02	tedly march/april 2022, called/made co		x								x			($2,129.83)
Wetridge (12 lots) - Sharkey/GreenHalo Permit 22-03 (Transferred 21-30 and 21-31)	3/25/2022		x								x			($1,250.07)
Boutwell Farm Lot 9 - Sharkey/GreenHalo Permit 22-04	3/25/2022		x								x			($316.10)
13290 Boutwell Road N - Sharkey/GreenHalo Permit 22-05	3/25/2022		x								x			($619.76)
Heritage Ridge Lot 2 (605 Heritage Place) - Sharkey/GreenHal Permit 22-06	3/25/2022		x								x			($545.73)
Liberty Classical Academy Permit 22-07	6/15/2022	x	x											$1,521.75
Boutwell Farm- Sharkey remaining lots Permit 22-08	placeholder, no app received		x								x			$628.56
Helmer Residence (Thomas Building Co.) Permit 22-09	8/15/2022		x							x				($1,493.31)
Caribou (Herberger's Redevelopment) Permit 22-10	9/29/2022	x	x									x		($4,192.75)
7125 Lone Oak Trail (WOS L106) Permit 22-11	9/25/2022		x							x				$962.04
7171 Mid Oaks Ave N Permit 22-12	7/15/2022		x							x				($870.06)
Cahill Residence Permit 22-14	8/1/2022		x							x				$60.57
13199 Dellwood Rd Permit 22-15	???		x							x				$169.37

APPLICANT/PERMIT NO.	PERMIT DATE	RULES							TYPE				FEES OWED	
		2	3	4	5	6	7	Decompaction	GOV	SF RES	RES DEV	COM	EXEMPT	AMT DUE
Stillwater Streets Imrpovement Permit 22-16	No application		x						x				$0.00	
Read Residence Permit 22-17	11/7/2022	x	x							x				$835.00
Stillwater Oaks Permit 22-18	incomplete	x	x								x			($89.25)
Miller Flood Protection Permit 22-19	10/20/2022						x				x		$2,654.00	
Popeyes OPH Permit 22-20	11/9/2022		x									x		($604.50)
3837 Tending Green Permi 22-21	10/20/2022	x	x							x				($5,305.93)
Fanberg Residence - Manning Estates L4B3 Permi 22-22	10/21/2022		x							x				($885.00)
Carl Lee Builder - Heritage Ridge L4B1 Permi 22-23	11/3/2022		x							x				($875.68)
7138 Lone Oak Trl N (WOS L109) Permit 22-24	sent for signature		x							x				($804.50)
7164 Lone Oak Trl (WOS L113) Permit 22-25	12/6/2022		x							x				($723.50)
Gagne Tending Green Permit 22-26	12/6//2022		x							x				($897.25)
WOS L102 Permit 22-27			x							x				$0.00
WOS L114 Permit 22-28			x							x				$0.00
WOS L118 Permit 22-29			x							x				$0.00
Wash Co. CSAH 5 Phase II Permit 22-30									x					$0.00
		90	326	34	15	27	160		71	153	13	119	$44,857.74	
TOTAL NON-EXEMPT DUE BCWD:														**$83,264.26**
Total due back to applicants if closed:														**$ (398,369.98)**

MEMORANDUM

TO: **BCWD Board of Managers**

FROM: Aaron DeRusha, WCD

DATE: **12/27/2022**

RE: **BCWD YSI Sonde Maintenance Request**

The watershed district currently owns and operates three YSI EXO 3 sondes in a continuous deployment mode during non-freezing conditions to monitor temperature, dissolved oxygen, turbidity, pH, and specific conductivity. These sondes are deployed on Brown's Creek at the McKusick Road, Stonebridge, and Outlet monitoring stations, and the data is used to assess conditions in the creek by comparison to state standards and the impairment stressors described in the Brown's Creek Biota TMDL.

The YSI EXO 3 sondes currently deployed at the McKusick Road and Stonebridge monitoring stations are in need of regular maintenance for components that have exceeded their service life, specifically two pH sensor modules and an optical dissolved oxygen sensor cap. The total cost for these user-replaceable parts according to the manufacturer's website is $560 plus shipping.

Requested board action: Approve sonde maintenance request as described, not to exceed $560 plus applicable shipping.

MINNESOTA POLLUTION CONTROL AGENCY

Grant Agreement

State of Minnesota

Doc Type: Contract/Grant

SWIFT Contract Number: 223086
Agency Interest ID: 206152
Activity ID: PRO20210001

This Grant Agreement is between the state of Minnesota, acting through its Commissioner of the **Minnesota Pollution Control Agency**, 520 Lafayette Road North, St. Paul, MN 55155-4194 ("MPCA" or "State"), and **Brown's Creek Watershed District,** 455 Hayward Ave North, Oakdale, MN 55128 ("Grantee").

Recitals

1. Under Minn. Stat. § 116.03, subd. 2, the State is empowered to enter into this grant.
2. The State is in need of the **Brown's Creek Watershed Restoration Phase I** project.
3. Grantee will comply with required grants management policies and procedures set forth through Minn. Stat. § 16B.97, subd. 4(a)(1).
4. The Grantee represents that it is duly qualified and agrees to perform all services described in this grant agreement to the satisfaction of the State. Pursuant to Minn. Stat. § 16B.98, subd. 1, the Grantee agrees to minimize administrative costs as a condition of this grant.

Grant Agreement

1. Term of Grant Agreement

1.1 ***Effective date: January 6, 2023***, Per Minn. Stat.§16B.98, Subd. 5, the Grantee must not begin work until this grant contract agreement is fully executed and the State's Authorized Representative has notified the Grantee that work may commence. Per Minn.Stat.§16B.98 Subd. 7, no payments will be made to the Grantee until this grant contract is fully executed.

1.2 ***Expiration date: July 31, 2025,*** or until all obligations have been satisfactorily fulfilled, whichever occurs first.

1.3 ***Survival of terms*.** The following clauses survive the expiration or cancellation of this grant agreement: Indemnification; State Audits; Government Data Practices and Intellectual Property; Publicity and Endorsement; Governing Law, Jurisdiction, and Venue; and Data Disclosure.

2. Grantee's Duties

The Grantee, who is not a state employee, will perform the duties specified in **Attachment A**, which is attached and incorporated into this grant agreement.

3. Time

The Grantee must comply with all the time requirements described in this grant agreement. In the performance of this grant agreement, time is of the essence.

4. Consideration and Payment

4.1 ***Consideration***. The State will pay for all services performed by the Grantee under this grant agreement as follows:

(a) Compensation. The Grantee will be paid according to the breakdown of costs contained in **Attachment A** which is attached and incorporated into this grant agreement. Grantee certifies they will provide no less than 40% (forty percent) of the total project cash as cash match or in-kind services, using non-federal funds and/or resources.

***(b) Travel expenses*.** Reimbursement for travel and subsistence expenses actually and necessarily incurred by the Grantee as a result of this grant agreement will not exceed $0.00; provided that the Grantee will be reimbursed for travel and subsistence expenses in the same manner and in no greater amount than provided in the current "Commissioner's Plan" promulgated by the Commissioner of Minnesota Management and Budget (MMB). The Grantee will not be reimbursed for travel and subsistence expenses incurred outside Minnesota unless it has received the State's prior written approval for out of state travel. Minnesota will be considered the home state for determining whether travel is out of state.

***(c) Total obligation*.** The total obligation of the State for all compensation and reimbursements to the Grantee under this grant agreement will not exceed **$320,705.50 (Three Hundred Twenty Thousand Seven Hundred Five Dollars and Fifty Cents).**

4.2 ***Payment***

(a) Invoices. The State will promptly pay the Grantee after the Grantee presents an itemized invoice for the services actually performed and the State's Authorized Representative accepts the invoiced services. Invoices must be submitted timely and according to the following schedule: **at least quarterly, along with the updated workplan budget showing current expenditures and budget balances,** and be received within 30 (thirty) days from the end of each quarter.

Invoices must be emailed to mpca.ap@state.mn.us, and contain the following information:

- Name of Grantee
- Grantee project manager
- Grant amount
- Grant amount available to date
- Invoice number
- Invoice date
- MPCA project manager
- SWIFT Contract No.
- Invoicing period (actual working period)
- Subcontractors invoices, if applicable
- Itemized labor, equipment, lab fees, shipping expenses, mileage and subcontractor charges, etc.
- Time and material breakdown of invoice. Amount billed to date for work, including this invoice
- Receipts for supplies, shipping, lab fees and any other subcontractor invoices must be attached

- Per diem expenses submitted on travel expense forms and receipts may be requested to be submitted with invoice
- Matching fund summary

If there is a problem with submitting an invoice electronically, please contact the Accounts Payable Unit at 651-757-2491.

The Grantee shall submit an invoice for the final payment within 15 (fifteen) days of the original or amended end date of this grant contract. The State reserves the right to review submitted invoices after 15 (fifteen) days and make a determination as to payment.

***(b) Federal funds*.** Payments under this grant agreement will be made from federal funds obtained by the State through Section 319 (h), CFDA number 66.460 of the Federal Clean Water Act. The Grantee is responsible for compliance with all federal requirements imposed on these funds and accepts full financial responsibility for any requirements imposed by the Grantee's failure to comply with federal requirements.

https://www.epa.gov/grants/grant-terms-and-conditions

***(c)* Unexpended Funds.** The Grantee must promptly return to the State any unexpended funds that have not been accounted for annually in a financial report to the State due at grant closeout.

4.3 ***Contracting and Bidding Requirements***

Per Minn. Stat. §471.345, grantees that are municipalities as defined in Subd. 1 must follow the law.

(a) For projects that include construction work and have a total project cost of $25,000 or more, prevailing wage rules apply per Minn. Stat. §§177.41 through 177.44. These rules require that the wages of laborers and workers should be comparable to wages paid for similar work in the community as a whole.

The grantee must not contract with vendors who are suspended or debarred in Minnesota: http://www.mmd.admin.state.mn.us/debarredreport.asp

5. Conditions of Payment

All services provided by the Grantee under this grant agreement must be performed to the State's satisfaction, as determined at the sole discretion of the State's Authorized Representative**/**MPCA's Project Manager and in accordance with all applicable federal, state, and local laws, ordinances, rules, and regulations. The Grantee will not receive payment for work found by the State to be unsatisfactory or performed in violation of federal, state, or local law.

6. Authorized Representative

The State's Authorized Representative/Project Manager is **Eric Alms,** 520 Lafayette Road, St. Paul, MN 55155, 651-757-2589, Eric.alms@state.mn.us, or their successor, and has the authority to monitor the Grantee's performance and to accept the services provided under this agreement. If the services are satisfactory, the MPCA's Project Manager will certify acceptance of each invoice submitted for payment.

The Grantee's Authorized Representative is **Karen Kill**, 455 Hayward Ave North, Oakdale, MN 55128, 651-330-8220 x26, karen.kill@mnwcd.org, or their successor. If the Grantee's Authorized Representative changes at any time during this grant agreement, the Grantee must immediately notify the State.

7. Assignment, Amendments, Change Orders, Waiver, and Grant Agreement Complete

7.1 ***Assignment.*** The Grantee shall neither assign nor transfer any rights or obligations under this grant agreement without the prior written consent of the State, approved by the same parties who executed and approved this grant agreement, or their successors in office.

7.2 ***Amendments.*** Any amendments to this grant agreement must be in writing and will not be effective until it has been executed and approved by the same parties who executed and approved the original grant agreement, or their successors in office.

7.3 ***Change orders.*** If the State's Project Manager or the Grantee's Authorized Representative identifies a change needed in the workplan and/or budget, either party may initiate a Change Order using the Change Order Form provided by the MPCA. Change Orders may not delay or jeopardize the success of the Project, alter the overall scope of the Project, increase or decrease the overall amount of the Contract/Agreement, or cause an extension of the term of this Agreement. Major changes require an Amendment rather than a Change Order.

The Change Order Form must be approved and signed by the State's Project Manager and the Grantee's Authorized Representative **in advance of doing the work**. Documented changes will then become an integral and enforceable part of the Agreement. The MPCA has the sole discretion on the determination of whether a requested change is a Change Order or an Amendment. The state reserves the right to refuse any Change Order requests.

7.4 ***Waiver.*** If the State fails to enforce any provision of this grant agreement, that failure does not waive the provision or the State's right to enforce it.

7.5 ***Grant agreement complete.*** This grant agreement contains all negotiations and agreements between the State and the Grantee. No other understanding regarding this grant agreement, whether written or oral, may be used to bind either party.

8. Indemnification

The Grantee must indemnify, save, and hold the State, its agents, and employees harmless from any claims or causes of action, including attorney's fees incurred by the State, arising from the performance of this grant agreement by the Grantee or the Grantee's agents or employees. This clause will not be construed to bar any legal remedies the Grantee may have for the State's failure to fulfill its obligations under this grant agreement.

9. State Audits

Under Minn. Stat. § 16B.98, subd.8, the Grantee's books, records, documents, and accounting procedures and practices of the Grantee or other party relevant to this grant agreement or transaction are subject to examination by the State and/or the State Auditor or Legislative Auditor, as appropriate, for a minimum of six years from the end of this grant agreement, receipt and

approval of all final reports, or the required period of time to satisfy all state and program retention requirements, whichever is later.

10. Government Data Practices and Intellectual Property

10.1 ***Government data practices***. The Grantee and State must comply with the Minnesota Government Data Practices Act, Minn. Stat. Ch. 13, as it applies to all data provided by the State under this grant agreement, and as it applies to all data created, collected, received, stored, used, maintained, or disseminated by the Grantee under this grant agreement. The civil remedies of Minn. Stat. § 13.08 apply to the release of the data referred to in this clause by either the Grantee or the State. If the Grantee receives a request to release the data referred to in this Clause, the Grantee must immediately notify the State. The State will give the Grantee instructions concerning the release of the data to the requesting party before the data is released. The Grantee's response to the request shall comply with applicable law.

10.2 ***Intellectual property rights***

(a) Intellectual property rights. The State owns all rights, title and interest in all of the intellectual property rights, including copyrights, patents, trade secrets, trademarks, and service marks in the Works and Documents created and paid for under this grant agreement. Works means all inventions, improvements, discoveries (whether or not patentable), databases, computer programs, reports, notes, studies, photographs, negatives, designs, drawings specifications, materials, tapes, and disks conceived, reduced to practice, created or originated by the Grantee, its employees, agents, and subcontractors, either individually or jointly with others in the performance of this grant agreement. Works includes "Documents." Documents are the originals of any databases, computer programs, reports, notes studies, photographs, negatives, designs, drawings, specifications, materials, tapes, disks, or other materials, whether in tangible or electronic forms, prepared by the Grantee, its employees, agents, or subcontractors, in the performance of this grant agreement. The Documents shall be the exclusive property of the State and all such Documents must be immediately returned to the State by the Grantee, at the Grantee's expense, upon the written request of the State, or upon completion, termination, or cancellation of this grant agreement. To the extent possible, those Works eligible for copyright protection under the United States' Copyright Act will be deemed to be "works made for hire." The Grantee assigns all right, title, and interest it may have in the Works and the Documents to the State. The Grantee must, at the request of the State, execute all papers and perform all other acts necessary to transfer or record the State's ownership interest in the Works and Documents.

***(b) Obligations*.**

(1) **Notification**. Whenever any invention, improvement, or discovery (whether or not patentable) is made or conceived for the first time or actually or constructively reduced to practice by the Grantee, including its employees and subcontractors, in the performance of this grant agreement, the Grantee shall immediately give the State's Authorized Representative written notice thereof, and must promptly furnish the Authorized Representative with complete information and/or disclosure therein.

(2) **Representation**. The Grantee must perform all acts, and take all steps necessary to ensure that all intellectual property rights in the Works and Documents are the sole property of the State, and that neither Grantee nor its employees, agents, or subcontractors retain any interest in and to the Works and Documents. The Grantee

represents and warrants that the Works and Documents do not and will not infringe upon any intellectual property rights of other persons or entities. Notwithstanding Clause Liability, the Grantee shall indemnify, defend, to the extent permitted by the Attorney General, and hold harmless the State, at the Grantee's expense, from any action or claim brought against the State to the extent that it is based on a claim that all or part of the Works or Documents infringe upon the intellectual property rights of others. The Grantee will be responsible for payment of any and all such claims, demands, obligations, liabilities, costs, and damages, including, but not limited to, attorney fees. If such a claim or action arises or in Grantee's or the State's opinion is likely to arise, the Grantee must, at the State's discretion, either procure for the State the right or license to use the intellectual property rights at issue or replace or modify the allegedly infringing Works or Documents as necessary and appropriate to obviate the infringement claim. This remedy of the State will be in addition to and not exclusive of other remedies provided by law.

(3) **License.** The State hereby grants a limited, no-fee, noncommercial license to the Grantee to enable the Grantee's employees engaged in research and scholarly pursuits to make, have made, reproduce, modify, distribute, perform, and otherwise use the Works, including Documents, for research activities or to publish in scholarly or professional journals, provided that any existing or future intellectual property rights in the Works or Documents (including patents, licenses, trade or service marks, trade secrets, or copyrights) are not prejudiced or infringed upon, that the Minnesota Data Practices Act is complied with, and that individual rights to privacy are not violated. The Grantee shall indemnify and hold harmless the State for any claim or action based on the Grantee's use of the Works or Documents under the provisions of Clause 10.2(b)(2). Said license is subject to the State's publicity and acknowledgement requirements set forth in this grant agreement. The Grantee may reproduce and retain a copy of the Documents for research and academic use. The Grantee is responsible for security of the Grantee's copy of the Documents. A copy of any articles, materials or documents produced by the Grantee's employees, in any form, using or derived from the subject matter of this license, shall be promptly delivered without cost to the State.]

11. Workers' Compensation

The Grantee certifies that it is in compliance with Minn. Stat. § 176.181, subd. 2, pertaining to workers' compensation insurance coverage. The Grantee's employees and agents will not be considered State employees. Any claims that may arise under the Minnesota Workers' Compensation Act on behalf of these employees and any claims made by any third party as a consequence of any act or omission on the part of these employees are in no way the State's obligation or responsibility.

12. Publicity and Endorsement

12.1 ***Publicity***. Any publicity regarding the subject matter of this grant contract must identify the State as the sponsoring agency and must not be released without prior written approval from the State's Authorized Representative. For purposes of this provision, publicity includes notices, informational pamphlets, press releases, research, reports, signs, and similar public notices prepared by or for the Grantee individually or jointly with others, or any subcontractors, with respect to the program, publications, or services provided resulting from

this grant contract. All projects primarily funded by state grant appropriations must publicly credit the State of Minnesota, including on the grantee's website when practicable.

12.2 ***Endorsement***. The Grantee must not claim that the State endorses its products or services.

13. Governing Law, Jurisdiction, and Venue

Minnesota law, without regard to its choice-of-law provisions, governs this grant agreement. Venue for all legal proceedings out of this grant agreement, or its breach, must be in the appropriate state or federal court with competent jurisdiction in Ramsey County, Minnesota.

14. Termination

14.1 ***Termination by the State.*** The State may immediately terminate this grant agreement with or without cause, upon 30-days' written notice to the Grantee. Upon termination, the Grantee will be entitled to payment, determined on a pro rata basis, for services satisfactorily performed.

14.2 ***Termination for cause.*** The State may immediately terminate this grant agreement if the State finds that there has been a failure to comply with the provisions of this grant agreement, that reasonable progress has not been made or that the purposes for which the funds were granted have not been or will not be fulfilled. The State may take action to protect the interests of the state of Minnesota, including the refusal to disburse additional funds and requiring the return of all or part of the funds already disbursed.

14.3 ***Termination for insufficient funding***. The State may immediately terminate this grant agreement if:

(a) Funding is withdrawn by the United States Environmental Protection Agency

(b) It does not obtain funding from the Minnesota Legislature.

(c) Or, if funding cannot be continued at a level sufficient to allow for the payment of the services covered here. Termination must be by written or fax notice to the Grantee. The State is not obligated to pay for any services that are provided after notice and effective date of termination. However, the Grantee will be entitled to payment, determined on a pro rata basis, for services satisfactorily performed to the extent that funds are available. The State will not be assessed any penalty if the agreement is terminated because of the decision of the Minnesota Legislature, or other funding source, not to appropriate funds. The State must provide the Grantee notice of the lack of funding within a reasonable time of the State's receiving that notice.

15. Data Disclosure

Under Minn. Stat. § 270C.65, subd. 3, and other applicable law, the Grantee consents to disclosure of its social security number, federal employer tax identification number, and/or Minnesota tax identification number, already provided to the State, to federal and state tax agencies and state personnel involved in the payment of state obligations. These identification numbers may be used in the enforcement of federal and state tax laws which could result in action requiring the Grantee to file state tax returns and pay delinquent state tax liabilities, if any.

To protect Grantee's personal data, Grantee is strongly encouraged to obtain and use a Minnesota tax identification number.

16. Reporting Requirements

The Grantee shall submit to the State for review and approval Semi-Annual reports in a format prescribed by the State. These reports shall be due to the State each **February 1** and **August 1** throughout the life of this grant agreement.

If water quality monitoring is applicable, all monitoring data collected during the project must be submitted annually and reported in EQuIS (MPCA's monitoring database) each **November 1** throughout the life of this grant agreement. The MPCA has developed an EQuIS format for an Electronic Data Deliverable (EDD). This format is called the MPCA LAB_MN and is available at the following: http://www.earthsoft.com/products/edp/edp-format-for-mnpca/. Analytical data must be provided in the MPCA LAB_MN format within the first year of the grant agreement.

If Best Management Practices (BMPs) are installed, a summary of the reporting year's BMPs and pollutant load reductions must be entered annually into the eLINK (supported by the Minnesota Board of Water and Soil Resources) database each **February 1** throughout the life of the grant agreement.

No later than thirty days before the end date of this grant agreement, the Grantee shall provide the State with one electronic copy of all final products produced under this grant agreement, including reports, publications, software and videos.

A Final Progress and Financial Report, in a format prescribed by the State, shall be due no later than 15 (fifteen) days before the expiration date of the grant agreement. Final payment will not be made to the Grantee until the final report is received and approved by the MPCA's Project Manager. **Payments may be withheld from grantees until all reporting requirements have been met.**

17. Quality Assurance

No costs for environmentally related measurements or data generation can be incurred by any entity other than the MPCA, until quality assurance practices for the project are documented and approved by the MPCA. If quality assurance practices are approved, costs for environmentally related measurements or data generation shall be reimbursable. [40 C.F.R. 31.45.]

All water monitoring programs and projects that involve environmental data acquisition from direct measurement activities or laboratory analysis must have an approved Quality Assurance Project Plan (QAPP) to ensure that the data collected are of known and suitable quality and quantity. The Contractor shall cooperate in the State's development of the QAPP, as necessary, and comply with the requisite elements of the plan.

Signatures

Title	Name	Signature	Date
Encumbrance Verification	Katie Shea	DocuSigned by: Katie Shea 1C7A9AE6E72C42D...	January 5, 2023

Karen Kill

MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155-4194

Federal Clean Water Act Section 319 grant Project workplan

Doc Type: Contract

Swift #:	223086
AI:	206152
Activity ID:	PRO20210001

Project title: Brown's Creek Watershed Restoration Phase I

Project Summary:

Organization: Brown's Creek Watershed District (BCWD)
Contractor contact name: Karen Kill
Title: District Administrator
Address: 455 Hayward Ave North
Oakdale, MN 55128
Phone: 651-330-8220 x26
Fax: 651-756-8552
E-mail: karen.kill@mnwcd.org

Minnesota Pollution Control Agency (MPCA) contact:

MPCA project manager: Eric Alms
Title: Watershed Project Manager
Address: 520 Lafayette Blvd
Saint Paul, MN 55155
Phone: 651-757-2589
E-mail: Eric.alms@state.mn.us

Project Information

Start date: 1/2023 **End date:** 7/31/2025
Total cost: $534,509.50 (Grant: $320,705.50, Match: $213,804.00)

Statement of Problems, Opportunities, and Existing Conditions

Problems: Brown's Creek reaches (07030005-520 and 07030005-587) are currently impaired for both aquatic life and aquatic recreation uses due to low fish and macroinvertebrate bioassessment scores, dissolved oxygen, thermal loads, and *E. coli*. The main water quality concerns for Brown's Creek and its tributaries are total suspended solids (TSS), total phosphorus (TP), *E. coli* bacteria, and thermal loads. Long Lake (82-0021-00) was listed as impaired for eutrophication in 2002 due to elevated levels of TP and chlorophyll-a (Chl-a). Long lake is also impaired for elevated chloride concentrations. In addition to the TSS and temperature issues for Brown's Creek and the nutrient issue for Long Lake, the Brown's Creek watershed is a part of the St. Croix River and Lake St. Croix watershed. Brown's Creek was assigned a phosphorus load reduction target of 1,954 lbs/yr in the Lake St. Croix Nutrient Total Maximum Daily Load (TMDL). This load reduction target was adjusted to 848 lb/yr

phosphorus to reflect more recent monitoring data (BCWD 2019).

Opportunities:

The Environmental Protection Agency (EPA) approved Brown's Creek Nine Key Element Bridge document (NKE plan) provides a list of best management practices (BMPs) and watershed goals that when implemented will yield the estimated reductions needed to meet water quality standards and improve habitat quality. The strategies listed in the NKE plan are intended to provide the flexibility to the BCWD to choose the best practice with the available implementation opportunity. The BCWD must not only gain the trust and permission from landowners, but also must work and coordinate efforts with multiple entities that work within the watershed.

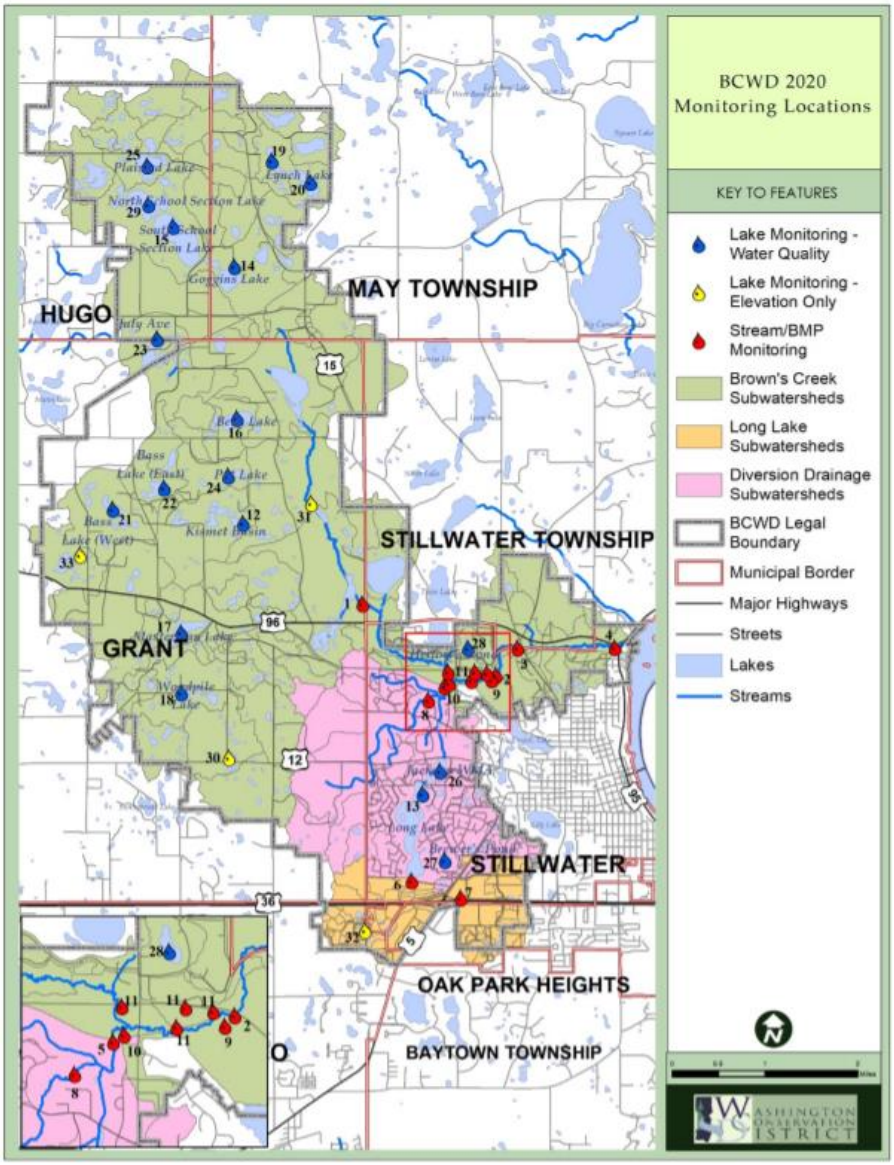


Figure 1: Brown's Creek Watershed District subwatersheds and boundaries.

The milestone-strategies found in table 7 of the NKE plan includes the planned years for the activities and the completed years for the activities if the activities have been completed.

This project is Phase 1 in the implementation of the NKE plan to restore and protect the water quality of surface water resources in the watershed. This workplan lists the BMPs identified in the NKE that will address reducing phosphorus, total suspended solids, thermal stressors, and *E. coli* loadings, while finding area and opportunities for multiple added benefits.

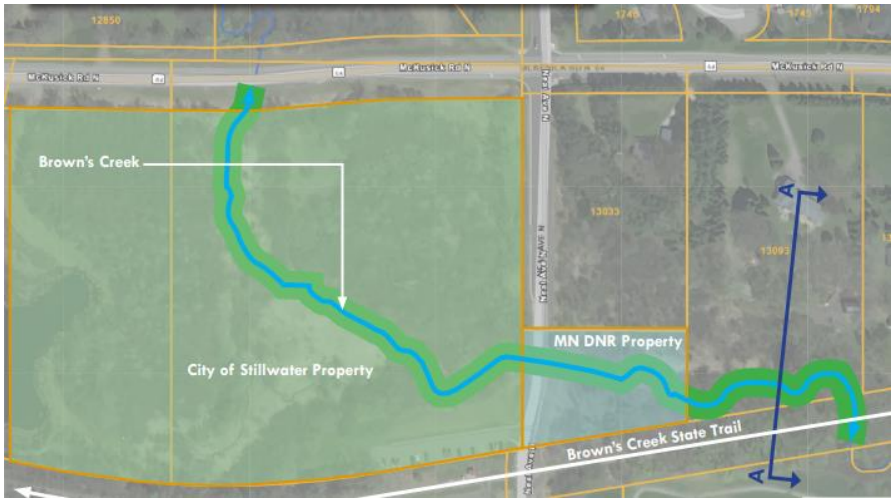
Goals, Objectives, Tasks, and Subtasks

Goal: To address existing watershed impairments and stressors, and to decrease pollutant loading to waterbodies within the Browns Creek and Long Lake Watersheds (including an unnamed creek between Brown's Creek and Long Lake), as identified in the NKE plan.

<u>Objective 1: BMP Implementation</u>

Task 1: Stream Geomorphology and Thermal Buffer Improvements (these activities are not required by a stormwater permit)

- Proposed length of restored stream in Brown's Creek - 2,000 Linear Feet (LF).
    - Location: McKusick Road through the Brown's Creek Park (owned by city of Stillwater), crossing Neal Ave, through the Department of Natural Resources (DNR) Aquatic Land Management Area to approximately 25 feet downstream of the Brown's Creek State Trail.



    - Activities could include stream channel improvements grading, tree thinning and invasive species removal, restored floodplain, riffle/pool restoration, bank shaping and stabilization, and improved access from Brown's Creek State Trail.
    - Subtasks could include project development by staff and legal counsel, design, engineering, and construction costs associated with implementation.

Objective 1 Timeline: January 2023 - July 31, 2025
Objective 1 Cost: $534,509.50 (Grant: $320,705.50, Match: $213,804.00)
Objective 1 Deliverables: Design Plans, Construction of stream restoration and Brown's Creek access from Brown's Creek State Trail

Measurable Outcomes

- Proposed length of restored stream: 2,000 LF.
- Initial sediment and nutrient reduction estimates are 15 tons/year annual soil loss and 15 lbs P/year.
- Habitat restoration for macroinvertebrates and fish will include restoration of riffle and pool habitat which is lacking in much of the project reach due to bank erosion and instream sedimentation. Based on the length of the reach, it is anticipated about 25 riffles and pools will be restored.

Brown's Creek Watershed District
2022 Budget
12-31-2022

		Revised 2021 Carry Forward for Approval	2022 Grants	2022 Levy	2022 Total Budget	Allocated	Available
100-2910	Designated Funds - Management Plan Projects	$ 1,175,778			$ 1,175,778		$ 1,175,778
					$ -		$ -
Revenue					$ -		$ -
100-3700	Interest Income				$ -		$ -
100-3601	Metropolitan Council Outlet Monitoring Grant		$ 5,000		$ 5,000		$ 5,000
100-3627	BWSR Clean Water Fund 2019 - Stormwater Reuse OC	$ 36,010			$ 36,010		$ 36,010
100-3628	BWSR Clean Water Fund 2020 - Stormwater Reuse SCC				$ -		$ -
100-3629	BWSR Clean Water Fund 2019 - Millbrook Riparian Restoratior		$ 39,380		$ 39,380		$ 39,380
100-3630	Washington County Cost-share Applewood Reuse		$ 66,800		$ 66,800		$ 66,800
100-3400	Permits				$ -		$ -
100-3100	Tax Levy			$ 1,122,277	$ 1,122,277		$ 1,122,277
TOTAL, ESTIMATED Sources of Funding			**$ 111,180**	**$ 1,122,277**	**$ 2,445,245**	**$ -**	**$ 2,445,245**

ACCT. #	General Expenses	Revised 2021 Carry Forward for Approval	2022 Grants	2022 Levy	2022 Total Budget	Allocated	Available
200-4000	Manager Per Diem and Expense	$ -		$ 10,000	$ 10,000	$ 10,000	$ -
200-4220	Secretarial Services	$ -		$ 4,000	$ 4,000	$ 4,000	$ -
200-4250	Dues & Subscriptions (MAWD 5000 and LMCIT 2000)	$ -		$ 7,000	$ 7,000	$ 7,000	$ -
200-4270	Bonding & Insurance	$ -		$ 4,000	$ 4,000	$ 4,000	$ -
200-4280	Postage & Delivery	$ 1,000		$ -	$ 1,000		$ 1,000
200-4290	Printing & Notices	$ 500		$ 500	$ 1,000		$ 1,000
200-4330	Accounting	$ -		$ 4,100	$ 4,100	$ 4,100	$ -
200-4331	Audit	$ -		$ 8,500	$ 8,500	$ 8,500	$ -
200-4949	Misc., Other Expense	$ -		$ 2,000	$ 2,000	$ 1,000	$ 1,000
200-4320	Wash. Conservation District--Admin	$ -		$ 53,500	$ 53,500	$ 53,500	$ -
200-4265	Admin Conference Registrations	$ -		$ 2,000	$ 2,000		$ 2,000
200-4410	Legal Fees - General	$ -		$ 24,500	$ 24,500	$ 24,500	$ -
200-4500	Staff Engineer	$ -		$ 25,800	$ 25,800	$ 25,800	$ -
	Diversity, Equity and Inclusion Training			$ 7,000	$ 7,000		$ 7,000
	Contingency Reserve	$ 59,452		$ -	$ 59,452		$ 59,452
TOTAL GENERAL FUND EXPENSES:		**$ 60,952**	**$ -**	**$ 152,900**	**$ 213,852**	**$ 142,400**	**$ 71,452**

ACCT. #	MANAGEMENT PLAN EXPENSES	Revised 2021 Carry Forward for Approval	2022 Grants	2022 Levy	2022 Total Budget	Allocated	Available
300-4320	Wash. Conservation District--Administrator	$ -		$ 160,000	$ 160,000	$ 160,000	$ -
300-4410	Legal Fees - Mgmt Plan	$ -		$ 50,000	$ 50,000		$ 50,000
300-4501	Staff Engineer	$ -		$ 76,500	$ 76,500	$ 76,500	$ -
300-4702	Permitting, Legal Review	$ -		$ 12,500	$ 12,500		$ 12,500
300-4703	Permitting, Engineering Review	$ -		$ 50,000	$ 50,000		$ 50,000
300-4704	Permitting, Inspection Database	$ -		$ 1,000	$ 1,000	$ 1,000	$ -
300-4710-1	Baseline Monitoring	$ 2,300	$ 5,000	$ 122,500	$ 129,800	$ 129,768	$ 32
300-4710-2	Progress to Goals - Watershed Trend Analysis			$ -	$ -		$ -
300-4640	Equip. Maint. and Upgrades	$ 20,000		$ 5,000	$ 25,000	$ 14,500	$ 10,500
300-4810	Shared Educator Position	$ -		$ 20,500	$ 20,500	$ 20,500	$ -
300-4950	Management Plan Implementation -future projects	$ 22,241		$ 23,927	$ 46,168	$ 1,000	$ 45,168
903-0001	Trout Habitat Preservation Project: Monitoring,	$ -		$ 5,000	$ 5,000	$ 4,837	$ 163
909-0000	Rules Review/Evaluation	$ 8,000		$ 12,000	$ 20,000		$ 20,000
909-0001	Groundwater Dep Nat Resource Inventory update	$ -		$ 10,000	$ 10,000		$ 10,000
910-0000	Education & Outreach	$ -		$ 15,000	$ 15,000	$ 10,035	$ 4,965
911-0000	Volunteer Stream Monitoring	$ -		$ 4,000	$ 4,000	$ 4,000	$ -
912-0000	Grant Preparation	$ -		$ 5,000	$ 5,000		$ 5,000
914-0000	Homeowner BMP Program	$ 15,000		$ 15,000	$ 30,000	$ 30,000	$ -
922-0000	Plan Reviews - LGU/LWMP			$ -	$ -		$ -
923-0000	H & H Model Maintenance	$ 7,500		$ (2,500)	$ 5,000		$ 5,000
923-0002	Flood Risk Assessment	$ 120,000		$ -	$ 120,000	$ 11,874	$ 108,126
927-0000	Management Plan Update	$ 45,000		$ 15,000	$ 60,000	$ 12,705	$ 47,295
929-0000	Long Lake Plan Implementation-shoreline management	$ -		$ 2,750	$ 2,750		$ 2,750
929-0010	Long Lake -Implementation - regional treatmen	$ 330,807	$ 66,800	$ 40,000	$ 437,607	$ 401,885	$ 35,722
929-0011	Long Lake - 62nd Street Pond Retrofit Feasibility	$ -		$ 15,773	$ 15,773		$ 15,773
929-0012	Long Lake - Marketplace Reuse Feasibility	$ -		$ 24,227	$ 24,227	$ 24,227	$ -
932-0003	TMDL Cooperation-tracking progress	$ -			$ -		$ -
932-0004	Iron Enhanced Sand Filter/Performance Monitoring	$ -		$ 9,000	$ 9,000	$ 9,000	$ -
935-0000	Land Conservation Program	$ 25,000		$ 25,000	$ 50,000		$ 50,000
935-0001	110th Street Property	$ -		$ -	$ -		$ -
935-0002	110th Street Property Implementation	$ 25,000		$ -	$ 25,000	$ 6,600	$ 18,400
935-0003	Develop Land Conservation Priorities	$ 20,000		$ -	$ 20,000		$ 20,000
940-0000	BMP Program – LGU/Community Demonstration Projects	$ 5,000		$ 5,000	$ 10,000		$ 10,000
940-0001	Flood Prevention Grant Program	$ 50,000		$ 50,000	$ 100,000		$ 100,000
942-0004	Measuring Trends in GW Elevations & Flow	$ 6,936		$ 3,500	$ 10,436	$ 10,436	$ -
942-0007	Groundwater - Browns Creek piezometers	$ -		$ 11,200	$ 11,200		$ 11,200
942-0011	Groundwater - Coordination with users	$ 2,080		$ 2,000	$ 4,080	$ 5,208	$ (1,128)
942-0012	Groundwater - Install Monitoring Wells	$ 55,000		$ (20,000)	$ 35,000	$ 7,440	$ 27,560
942-0013	Groundwater - Pump Test	$ 8,000		$ -	$ 8,000	$ 5,952	$ 2,048
947-0011	Countryside Auto BMP-performance monitoring	$ -		$ 2,000	$ 2,000	$ 2,000	$ -
947-0016	Brown's Creek - BC Trails Park Parking Lot Perfm Mon	$ -		$ 2,500	$ 2,500	$ 2,500	$ -
947-0017	Brown's Creek Implementation - Ecoli site visits/cost-share	$ 10,000		$ -	$ 10,000		$ 10,000
947-0018	Brown's Creek - Biological Survey (Macroinvert & Fish	$ 4,000		$ 2,000	$ 6,000	$ 6,005	$ (5)
947-0020	Brown's Creek - Stream Channel Survey	$ 7,276		$ -	$ 7,276	$ 7,276	$ -
947-0022	Brown's Creek - Buffer and Stream Restoration	$ 28,344	$ 39,380	$ 100,000	$ 167,724	$ 84,373	$ 83,351
947-0023	Brown's Creek - Golf Course Reuse - Oak Glen			$ -	$ -		$ -
947-0025	Brown's Creek - Golf Course Reuse - SCC	$ 44,000		$ -	$ 44,000		$ 44,000
948-0000	CIP Maintenance	$ 50,000		$ 30,000	$ 80,000	$ 69,976	$ 10,024
950-0001	South School Curly Leaf Treatment	$ -		$ 12,500	$ 12,500	$ 9,939	$ 2,561
950-0002	Lynch Lake Fish Management				$ -		$ -
951-0001	Woodpile Lake Management Plan Implementatior	$ 10,000			$ 10,000		$ 10,000
953-0000	Fen Management Plan Implementation	$ -		$ 3,000	$ 3,000	$ 3,000	$ -
956-0000	Bass East & West Management Plan	$ 5,700		$ -	$ 5,700	$ 5,700	$ -
957-0000	Weather Station	$ 3,307		$ 3,500	$ 6,807	$ 6,929	$ (122)
959-0002	Resource Assessment - Diversion Tribs - Head cut Repairs	$ 175,000		$ (45,000)	$ 130,000	$ 130,000	$ -
959-0003	Resource Assessment - Brown's Creek Gorge Bluff	$ 2,000			$ 2,000	$ 2,000	$ -
960-0000	St Croix Phosphorus Reduction	$ -		$ 10,000	$ 10,000	$ 9,928	$ 72
961-0000	Mendel Wetland Restoration Feasiblity	$ 7,335		$ 30,000	$ 37,335	$ 11,367	$ 25,968
962-0000	District-Wide Pond Management Planning	$ -		$ 40,000	$ 40,000	$ 39,932	$ 68
963-0000	District-Wide Vegetation Surveys	$ -		$ 10,000	$ 10,000		$ 10,000
TOTAL MANAGEMENT PLAN PROJECT EXPENSES:		**$ 1,114,825**	**$ 111,180**	**$ 969,377**	**$ 2,195,382**	**$ 1,338,392**	**$ 856,991**
TOTAL, OPERATING EXP. & MGMT. PLAN PROJECTS:		**$ 1,175,778**	**$ 111,180**	**$ 1,122,277**	**$ 2,409,235**	**$ 1,480,792**	**$ 928,443**

Brown's Creek Watershed District
2023 Budget
As approved 9-14-2022

		2022 Total Budget	Estimated 2022 Carry Forward	2023 Grants	2023 Levy	2023 Total Budget	Change from 2022 to 2023
100-2910	Designated Funds - Management Plan Projects	$ 1,175,778	$ 856,450			$ 856,450	$ (319,328)
		$ -				$ -	$ -
Revenue		$ -				$ -	$ -
100-3700	Interest Income	$ -				$ -	$ -
100-3601	Metropolitan Council Outlet Monitoring Grant	$ 5,000		$ 5,000		$ 5,000	$ -
100-3627	BWSR Clean Water Fund 2019 - Stormwater Reuse OG	$ 36,010				$ -	$ (36,010)
100-3628	BWSR Clean Water Fund 2020 - Stormwater Reuse SCC	$ -				$ -	$ -
100-3629	BWSR Clean Water Fund 2019 - Millbrook Riparian Restoratior	$ 39,380				$ -	$ (39,380)
100-3630	Washington County Cost-share Applewood Reuse	$ 66,800				$ -	$ (66,800)
100-3631	MPCA Small Watershed Grant 2023-2026			$ 324,500		$ 324,500	$ 324,500
100-3400	Permits	$ -				$ -	$ -
100-3100	Tax Levy	$ 1,122,277			$ 1,150,415	$ 1,150,415	$ 28,138
TOTAL, ESTIMATED Sources of Funding		**$ 2,445,245**	**$ 856,450**	**$ 329,500**	**$ 1,150,415**	**$ 2,336,365**	**$ (108,880)**

ACCT. #	General Expenses	2022 Total Budget	Estimated 2022 Carry Forward	2023 Grants	2023 Levy	2023 Total Budget	Change from 2022 to 2023
200-4000	Manager Per Diem and Expense	$ 10,000	$ -		$ 10,000	$ 10,000	$ -
200-4220	Secretarial Services	$ 4,000	$ -		$ 4,000	$ 4,000	$ -
200-4250	Dues & Subscriptions (MAWD 5000 and LMCIT 2000)	$ 7,000	$ -		$ 7,000	$ 7,000	$ -
200-4270	Bonding & Insurance	$ 4,000	$ -		$ 5,500	$ 5,500	$ 1,500
200-4280	Postage & Delivery	$ 1,000	$ -		$ 1,000	$ 1,000	$ -
200-4290	Printing & Notices	$ 1,000	$ -		$ 1,000	$ 1,000	$ -
200-4330	Accounting	$ 4,100	$ -		$ 4,305	$ 4,305	$ 205
200-4331	Audit	$ 8,500	$ -		$ 9,350	$ 9,350	$ 850
200-4949	Misc., Other Expense	$ 2,000	$ -		$ 2,000	$ 2,000	$ -
200-4320	Wash. Conservation District--Admin	$ 53,500	$ -		$ 55,640	$ 55,640	$ 2,140
200-4265	Admin Conference Registrations	$ 2,000	$ -		$ 2,000	$ 2,000	$ -
200-4410	Legal Fees - General	$ 24,500	$ -		$ 25,480	$ 25,480	$ 980
200-4500	Staff Engineer	$ 25,800	$ -		$ 27,090	$ 27,090	$ 1,290
	Diversity, Equity and Inclusion Training	$ 7,000	$ -		$ 5,000	$ 5,000	$ (2,000)
	Contingency Reserve	$ 59,452	$ 50,000		$ -	$ 50,000	$ (9,452)
TOTAL GENERAL FUND EXPENSES:		**$ 213,852**	**$ 50,000**	**$ -**	**$ 159,365**	**$ 209,365**	**$ (4,487)**

ACCT. #	MANAGEMENT PLAN EXPENSES	2022 Total Budget	Estimated 2022 Carry Forward	2023 Grants	2023 Levy	2023 Total Budget	Change from 2022 to 2023
300-4320	Wash. Conservation District--Administrator	$ 160,000	$ -		$ 166,400	$ 166,400	$ 6,400
300-4410	Legal Fees - Mgmt Plan	$ 50,000	$ -		$ 52,000	$ 52,000	$ 2,000
300-4501	Staff Engineer	$ 76,500	$ -		$ 80,325	$ 80,325	$ 3,825
300-4702	Permitting, Legal Review	$ 12,500	$ -		$ 13,000	$ 13,000	$ 500
300-4703	Permitting, Engineering Review	$ 50,000	$ -		$ 52,500	$ 52,500	$ 2,500
300-4704	Permitting, Inspection Database	$ 1,000	$ -		$ 1,000	$ 1,000	$ -
300-4710-1	Baseline Monitoring	$ 129,800	$ -	$ 5,000	$ 125,000	$ 130,000	$ 200
300-4640	Equip. Maint. and Upgrades	$ 25,000	$ -		$ 27,500	$ 27,500	$ 2,500
300-4810	Shared Educator Position	$ 20,500	$ -		$ 20,500	$ 20,500	$ -
300-4950	Management Plan Implementation -future projects	$ 48,104	$ 30,000		$ -	$ 30,000	$ (18,104)
903-0001	Trout Habitat Preservation Project: Monitoring,	$ 5,000	$ -		$ 6,300	$ 6,300	$ 1,300
909-0000	Rules Review/Evaluation	$ 20,000	$ 10,000		$ 10,000	$ 20,000	$ -
909-0001	Groundwater Dep Nat Resource Inventory update	$ 10,000	$ 10,000		$ -	$ 10,000	$ -
909-0002	Permitting Program Internal Procedure updates	$ -	$ -		$ 25,000	$ 25,000	$ 25,000
910-0000	Education & Outreach	$ 15,000	$ 5,250		$ 10,000	$ 15,250	$ 250
911-0000	Volunteer Stream Monitoring	$ 4,000			$ 4,160	$ 4,160	$ 160
912-0000	Grant Preparation	$ 5,000			$ 5,000	$ 5,000	$ -
914-0000	Homeowner BMP Program	$ 30,000			$ 60,000	$ 60,000	$ 30,000
922-0000	Plan Reviews - LGU/LWMP	$ -			$ -	$ -	$ -
923-0000	H & H Model Maintenance	$ 5,000	$ 5,000		$ 5,250	$ 10,250	$ 5,250
923-0002	Flood Risk Assessment	$ 120,000	$ 108,000		$ (8,000)	$ 3	$ (119,997)
927-0000	Management Plan Update	$ 60,000	$ 47,000		$ 90,000	$ 137,000	$ 77,000
929-0000	Long Lake Plan Implementation-shoreline management	$ 2,750			$ 3,700	$ 3,700	$ 950
929-0010	Long Lake -Implementation - regional treatmen	$ 437,607	$ 35,000		$ (35,000)	$ -	$ (437,607)
929-0011	Long Lake - 62nd Street Pond Retrofit Feasibility	$ 25,000	$ 25,000		$ 3,350	$ 28,350	$ 3,350
929-0012	Long Lake - Marketplace Reuse Feasibility	$ 15,000	$ -		$ 164,900	$ 164,900	$ 149,900
931-0001	Benz Lake Management Plan Implementatior	$ -			$ 15,500	$ 15,500	$ 15,500
932-0004	Iron Enhanced Sand Filter/Performance Monitoring	$ 9,000			$ 9,000	$ 9,000	$ -
935-0000	Land Conservation Program	$ 50,000	$ 50,000		$ 50,000	$ 100,000	$ 50,000
935-0002	110th Street Property Implementation	$ 25,000			$ 25,000	$ 25,000	$ -
935-0003	Develop Land Conservation Priorities	$ 20,000	$ 20,000		$ -	$ 20,000	$ -
940-0000	BMP Program – LGU/Community Demonstration Projects	$ 10,000	$ 10,000		$ -	$ 10,000	$ -
940-0001	Flood Prevention Grant Program	$ 100,000	$ 100,000		$ (100,000)	$ -	$ (100,000)
942-0004	Measuring Trends in GW Elevations & Flow	$ 8,500			$ 12,600	$ 12,600	$ 4,100
942-0007	Groundwater - Browns Creek piezometers	$ 11,200	$ 11,200		$ (2,240)	$ 8,960	$ (2,240)
942-0011	Groundwater - Coordination with users	$ 4,080			$ 4,725	$ 4,725	$ 645
942-0012	Groundwater - Install Monitoring Wells	$ 35,000	$ 27,500		$ 31,900	$ 59,400	$ 24,400
942-0013	Groundwater - Pump Test	$ 8,000	$ 2,000		$ 13,300	$ 15,300	$ 7,300
947-0011	Countryside Auto BMP-performance monitoring	$ 2,000	$ -		$ 2,080	$ 2,080	$ 80
947-0016	Brown's Creek - BC Trails Park Parking Lot Perfm Mon	$ 2,500			$ 2,600	$ 2,600	$ 100
947-0017	Brown's Creek Implementation - Ecoli site visits/cost-share	$ 10,000	$ 10,000		$ -	$ 10,000	$ -
947-0018	Brown's Creek - Biological Survey (Macroinvert & Fish)	$ 6,000	$ -		$ 8,000	$ 8,000	$ 2,000
947-0020	Brown's Creek - Stream Channel Survey	$ 7,276			$ -	$ -	$ (7,276)
947-0022	Brown's Creek - Buffer and Stream Restoration	$ 167,724	$ 75,000	$ 324,500	$ -	$ 399,500	$ 231,776
947-0023	Brown's Creek - Golf Course Reuse - Oak Glen	$ -			$ 6,300	$ 6,300	$ 6,300
947-0025	Brown's Creek - Golf Course Reuse - SCC	$ 44,000	$ 44,000		$ (44,000)	$ -	$ (44,000)
948-0000	CIP Maintenance	$ 80,000	$ 18,500		$ 99,100	$ 117,600	$ 37,600
950-0001	South School Curly Leaf Treatment	$ 12,500	$ 2,500		$ 8,000	$ 10,500	$ (2,000)
950-0002	Lynch Lake Fish/Veg Management	$ -			$ 4,500	$ 4,500	$ 4,500
951-0001	Woodpile Lake Management Plan Implementatior	$ 10,000	$ 10,000		$ -	$ 10,000	$ -
953-0000	Fen Management Plan Implementation	$ 3,000			$ 4,100	$ 4,100	$ 1,100
956-0000	Bass East & West Management Plan	$ 5,700			$ -	$ -	$ (5,700)
957-0000	Weather Station	$ 6,807			$ 3,700	$ 3,700	$ (3,107)
959-0002	Resource Assessment - Diversion Tribs - Head cut Repairs	$ 130,000	$ 125,000		$ (65,000)	$ 60,000	$ (70,000)
959-0003	Resource Assessment - Brown's Creek Gorge Bluff	$ 2,000			$ -	$ -	$ (2,000)
960-0000	St Croix Phosphorus Reduction	$ 10,000			$ -	$ -	$ (10,000)
961-0000	Mendel Wetland Restoration Feasiblity	$ 37,335	$ 25,500		$ 6,000	$ 31,500	$ (5,835)
962-0000	District-Wide Pond Management Planning/Implementation	$ 40,000			$ 10,500	$ 10,500	$ (29,500)
963-0000	District-Wide Vegetation Surveys	$ 10,000			$ -	$ -	$ (10,000)
964-0000	District-Wide Chloride Source Assessment	$ -			$ 2,500	$ 2,500	$ 2,500
TOTAL MANAGEMENT PLAN PROJECT EXPENSES:		**$ 2,205,382**	**$ 806,450**	**$ 329,500**	**$ 991,050**	**$ 2,127,000**	**$ (168,379)**
TOTAL, OPERATING EXP. & MGMT. PLAN PROJECTS:		**$ 2,419,235**	**$ 856,450**	**$ 329,500**	**$ 1,150,415**	**$ 2,336,365**	**$ (172,867)**

BROWN'S CREEK WATERSHED DISTRICT
1/11/2023
CURRENT ITEMS PAYABLE-PAGE 1 of 2

	YES	NO	ABSTAIN	ABSENT
ECKLES	_____	_____	_____	_____
JOHNSON	_____	_____	_____	_____
LEROUX	_____	_____	_____	_____
WIRTH	_____	_____	_____	_____

VENDOR		**ACCOUNT #**		ITEMS		TOTAL	**CK NO**
Emmons & Olivier Resources,	Invoices December 2022						
	Inv. 41-0000-205 Retainer	300-4500	$	6,425.25			
	Inv. 41-0000-205 Retainer	200-4500	$	2,141.75			
	Inv. 41-0001-208 Permits 2000-2007	300-4703	$	4,855.75			
	Inv. 41-0307-70 Permits 2017						
	Permitting #17-01 Grant Holdings Subd	300-4703	$	745.25			
	Inv. 41-0330-60 Permits 2018						
	Permitting #18-02 Heifort Hills Estate	300-4703	$	484.25			
	Inv. 41-0402-11 Permits 2022						
	Permitting #22-02 Gonyea at White Pine Ridge	300-4703	$	171.25			
	Permitting #22-09 Helmer Residence	300-4703	$	74.75			
	Permitting #22-11 WOS Lot 106	300-4703	$	40.50			
	Permitting #22-18 Stillwater Oaks	300-4703	$	2,451.50			
	Inv. 41-0205-68 CIP Operation and Maintenance	948-4500	$	81.00			
	Inv. 41-0284-23 BCWD Education and Outreach	910-0000	$	1,069.50			
	Inv. 41-0297-13 BCWD Boundary Review	923-0000	$	489.00			
	Inv. 41-0357-13 Grant Assistance	947-0023	$	1,116.00			
	Inv. 41-0389-13 Mendel Rd Wetland Groundwater	961-0000	$	1,171.25			
	Inv. 41-0408-8 IESF OM 2022	948-4500	$	2,405.00			
	Inv. 41-0415-5 Marketplace District Reuse Feasibility	929-0012	$	6,221.75			
	Inv. 41-0400-8 District-wide Pond Management	962-0000	$	1,181.00			
	Inv. 41-0391-16 Millbrook HOA Restoration	947-0022	$	788.50			
	Inv. 41-0417-4 THPP Infiltration Trench Evaluation	903-0001	$	12.50			
	Inv. 41-0418-2 Brown's Ck Pk Restoration	947-0022	$	2,498.50			
	Inv. 41-0362-24 TH 36/CSAH 15 Interchange Applewood Golf	929-0010	$	265.90			
	Inv. 41-0406-6 BCWD 2022 Bio Survey	947-0018	$	16.33			
	Inv. 41-0411-3 2022 GW Coordination	942-0011	$	2,391.00			
	Inv. 41-0412-3 2022 GW Elevations	942-0004	$	840.00			
	Inv. 41-0414-4 OGGC Reuse Maintenance and Monitoring	947-0023	$	202.50			
	Inv. 41-0416-2 2022 Kimbro GW Levels	942-0004	$	866.25	$	39,006.23	
Washington Conservation Dist	Inv. 5852 November 2022- Water Monitoring						
	Baseline Water Monitoring- labor	300-4710	$	9,545.41			
	Baseline Water Monitoring- equipment	300-4640	$	14.58			
	Metropolitan Council- Lab	300-4710	$	12,874.25			
	Inv. 5856 November 2022- BMP Program	914-0000	$	534.25	$	22,968.49	

Smith Partners	December 2022 Invoices					
	Inv. 43703 Retainer - Meetings, Preparation	200-4410	$	2,070.63		
	Inv. 43704 General Legal Services	300-4410	$	0.54		
	Inv. 43705 Planning	300-4410	$	103.60		
	Inv. 43706 Boundary Changes	300-4410	$	207.20		
	Inv. 43707 Policy Issues	300-4410	$	129.50		
	Inv. 43709 Riparian Shading	300-4410	$	103.60		
	Inv. 43710 Highway 36/Manning Reuse	300-4410	$	155.40		
	Inv. 43708 Capital Project Development	300-4410	$	129.50	$	2,899.97
MNL	Inv. 37307 Millbrook HOA BC Enhancement Project Pay Request #3	947-0022	$	4,050.00	$	4,050.00
Dave McCord	Inv. 3848 November 2022 Accounting Services	200-4330	$	340.00	$	340.00
Barbara Wohlferd	Permit #21-12 Closeout	300-4703	$	440.75	$	440.75
Brian Zwach	BCWD Stewardship Grant Reimbursement Zwach 08	914-0000	$	500.00	$	500.00
Manager McKim	Quarter IV 2022 Per Diem	200-4000	$	300.00	$	300.00
Manager Wirth	Quarter IV 2022 Per Diem	200-4000	$	600.00	$	600.00
Manager Johnson	Quarter IV 2022 Per Diem	200-4000	$	400.00	$	400.00
Manager LeRoux	Quarter IV 2022 Per Diem	200-4000	$	300.00	$	300.00
Manager Eckles	Quarter IV 2022 Per Diem	200-4000	$	300.00	$	300.00
Total Amount Disbursed					**$**	**72,105.44**

BROWN'S CREEK WATERSHED DISTRICT
1/11/2023
MONTHLY ITEMS DEPOSITED - Page 1 of 1

VENDOR	INVOICE/DESCRIPTION	ACCOUNT	CK NO	DEPOSIT DATE		TOTAL
MN Management &	MV Credit - Agricultural	100-3100	direct deposit	12/22/2022	$	763.33
League of MN Cities	2022 Dividend	200-4250	188428	12/21/2022	$	829.00
TOTAL AMOUNT DEPOSITED:					**$**	**1,592.33**

Brown's Creek Watershed District

Treasurer's Report

01-11-23

Checking balance (9903)	$1,426,392.65
Money Market balance (6671) :	$2,447.89
Permit balance (6614) :	$241,763.93
Certificate of Deposit balance:	$204,879.62
Total :	$1,875,484.09
Accounts payable:	$72,105.44
Unrecorded deposits:	
Total balance :	$1,803,378.65

I certify that the bank statements have been reviewed for consistency with the previously approved checks.

Gerald Johnson, BCWD Treasurer

Contract Number: 23-01 BCWD

AGREEMENT BETWEEN
WASHINGTON CONSERVATION DISTRICT AND
BROWN'S CREEK WATERSHED DISTRICT

A. PARTIES

This agreement is made and entered into by Washington Conservation District, (WCD), and the Brown's Creek Watershed District (Watershed District).

B. PURPOSE

WHEREAS, the Watershed District has requested assistance from the WCD to implement the policies specified in MINN. STAT. §§ 103A.206, 103B.201 and 103D.201; and
WHEREAS, the WCD is authorized to enter agreements to provide such assistance pursuant to MINN. STAT. §§ 103C.331, SUBD. 3 and 7 and 103D.335, subd. 21.
NOW, THEREFORE, the parties agree as follows:

C. TERM OF CONTRACT

The term of this agreement shall be from January 1, 2023 to December 31, 2024, unless extended or terminated earlier as provided herein.

D. SCOPE OF SERVICES

The WCD will perform all services and furnish and deliver work products described in Exhibits A through D, attached to and made part of this agreement.

E. COST

In consideration for services and work products provided under this agreement, the WCD shall charge the Watershed District for its services at the rates set forth in Section F and accompanying exhibits. The total payment under this agreement is $390,513.50 in 2023 and $398,556.50 in 2024. Total payment for services performed and work product provided under each of the exhibits attached hereto will not exceed the following per-exhibit amounts:

Exhibit	***Service***	***2023***	***2024***
Exhibit A	Administrative Services	$225,650	$234,675
Exhibit B	Best Management Practices Program	$17,692	$18,418
Exhibit C	Water Monitoring Program-(labor and travel)	$121,600	$120,444
	Water Monitoring Program-expenses (supplies, equipment, and lab fees)	$21,615	$20,976
Exhibit D	Volunteer Stream Monitoring Program (labor)	$2,030	$2,117
	Volunteer Stream Monitoring Program (expenses)	$1,926.50	$1,926.50
TOTALS		**$390,513.50**	**$398,556.50**

F. BILLING RATE AND PAYMENTS

1. For 2023 & 2024, the services provided by the WCD in accordance with Exhibit B will be billed on an hourly basis at the following hourly rates, based on personnel and task.

	2023	2024
Seasonal	$42.00	$44.00
Technician I & II	$62.00	$64.00
Technician III	$66.00	$68.00
Specialist I	$70.00	$73.00
Specialist II	$76.00	$79.00
Specialist III	$82.00	$85.00
Engineer/WCD Manager	$92.00	$95.00

   Invoices for Exhibit B will be sent on a monthly basis and will list specifically the work performed. For services performed and work products provided in accordance with Exhibits A, C, and D, the WCD will bill the Watershed District monthly on a lump sum basis, plus actual direct project and lab expenses. All invoices will list specifically the work performed. Invoices are payable by the Watershed District within 35 days.
2. Office supplies, reproduction expenses, and transportation are included in the hourly rate. Other expenses are to be reimbursed at actual cost.

G. EQUAL EMPLOYMENT OPPORTUNITY- CIVIL RIGHTS

During the performance of this agreement, the WCD agrees to the following:
No person shall, on the grounds of race, color, religion, age, sex, disability, marital status, public assistance, criminal record, creed or national origin, be excluded from full employment rights in, be denied the benefits of, or be otherwise subjected to discrimination under any program, service, or activity under the provisions of and all applicable federal and state laws against discrimination including the Civil Rights Act of 1964.

H. DUTY OF CARE; LEGAL COMPLIANCE

The WCD will perform the services under this agreement with due care and in accordance with national standards of professional care. The WCD shall comply with all applicable Federal and State statutes and regulations as well as local ordinances now in effect or hereafter adopted. Failure to meet the requirements of the above may be cause for cancellation of this agreement.

I. DATA PRIVACY

All data collected, created, received, maintained or disseminated for any purpose by the WCD and the Watershed District pursuant to their duties and conduct under this Agreement are governed by Minnesota Statutes Chapter 13 (DPA), the Minnesota Rules implementing the DPA and any other applicable state statutes and state rules adopted to implement the Act, as well as state statutes and federal regulations on data privacy. The WCD agrees to abide by these statutes, rules and regulations and as they may be amended. The WCD further agrees that it will not disclose and will hold in confidence any and all proprietary materials owned or possessed by Watershed District and so denominated by Watershed District, subject to the DPA. All records kept by the WCD and Watershed District with respect to the work performed under the agreement will be subject to examination by the representative of each party hereto, except as protected or prohibited by law.

J. AUDITS, REPORTS, AND MONITORING PROCEDURES

The WCD will:

1. Maintain records for six years that reflect all revenues, cost incurred and services provided in the performance of the agreement.

2. Agree that the County, the State Auditor, or legislative authority, or any of their duly authorized representatives at any time during normal business hours, and as often as they may deem reasonably necessary, shall have access to the rights to examine audit, excerpt, and transcribe any books, documents, papers, records, etc., and accounting procedures and practices of the WCD which are relevant to the agreement.

K. INDEMNITY

Neither party to this agreement agrees to be responsible for the acts or omissions of the other, its agents, officials, contractors or employees within the meaning of Minnesota Statutes section 471.59, subdivision 1a. The WCD and Watershed District each will hold harmless, defend and indemnify the other, its officers, board members, employees and agents for any and all damage, liability, cost or claim (including reasonable attorneys' fees) to the extent it is the result of its negligent act or of another action or inaction that is the basis for its liability in law or equity. Each party agrees to provide proof of contractual liability insurance upon request. This paragraph does not constitute a waiver or otherwise diminish any statutory or common law defense, immunity or limit on liability the parties may enjoy as against any third party.

L. INDEPENDENT CONTRACTOR

It is agreed that nothing herein contained is intended or should be construed in any manner as creating or establishing the relationship of co-partners between the parties hereto or as constituting the WCD as the agent, representative, or employee of Watershed District for any purpose or in any manner whatsoever. The WCD is to be and shall remain an independent contractor with respect to all services performed under this agreement.

The WCD represents that it has, or will secure at its own expense, all personnel required in performing services under this agreement. Any and all personnel of the WCD or other person, while engaged in the performance of any work or services required by the WCD under this agreement, shall have no contractual relationship with the Watershed District and shall not be considered employees of the Watershed District.

M. MODIFICATIONS

Any material alteration or variation shall be reduced to writing as an amendment and signed by the parties. Any alteration, modification, or variation deemed not to be material by written agreement of the WCD and the Watershed District shall not require written approval.

N. MERGER

It is understood and agreed that the entire agreement of the parties is contained here, except as modified during the term of the agreement by a writing under Paragraph M above concerning a non-material change, and that this agreement supersedes oral agreements and negotiations between the parties relating to this subject matter. All items referred to in this agreement are incorporated or attached and deemed to be part of the agreement.

O. TERMINATION

Either the WCD or the Watershed District may terminate this agreement with or without cause by giving the other party thirty (30) days written notice prior to the effective date of such termination. If the Watershed District terminates this agreement, it may specify work to be performed by the WCD before termination is effective and shall pay the WCD for services performed by the WCD up to the time specified for termination. If the WCD terminates the agreement, it will not be compensated for partial completion of a task.

P. OWNERSHIP OF DOCUMENTS AND INTELLECTUAL PROPERTY

All property of the Watershed District used, acquired or created in the performance of work under this agreement, including documents and records of any kind, shall remain the property of the Watershed District. The Watershed District shall have the sole right to use, sell, license, publish, or otherwise disseminate any product developed in whole or in part during the performance of work under this agreement.

Q. APPROVAL AND NON-ASSIGNMENT OF SERVICES; SUBCONTRACTING

The Watershed District shall have the authority to approve or disapprove of the WCD's selection of any individual WCD employee to perform services or provide work product under this agreement. WCD will subcontract certain of the services as specified in Exhibit B to RESPEC (Subcontractor). Otherwise, WCD will not further assign, subcontract or transfer any other obligation or interest in this agreement or any of the services without the written consent of Watershed District and pursuant to any conditions included in that consent. Watershed District consent to the subcontracting specified in Exhibit B or any other subcontracting does not relieve WCD of its responsibility to perform the services or any part thereof, nor in any respect its warranty, insurance, indemnification, duty to defend or agreement to hold harmless with respect to the services, except that WCD agrees that it will indemnify, defend and hold harmless Watershed District, its board members and agents from any and all actions, costs, damages and liabilities of any nature to the degree they are the result of Subcontractor's negligence or other action or inaction by Subcontractor that is the basis for Subcontractor's liability.

IN TESTIMONY WHEREOF the parties execute this agreement by their duly authorized officers, intending to be legally bound.

APPROVED:

Watershed District		WCD	
BY: _____		BY: _____	
President	Date	Manager	Date

EXHIBIT A
2023-24 SCOPE OF SERVICES
ADMINISTRATIVE SERVICES AGREEMENT
BETWEEN THE WASHINGTON CONSERVATION DISTRICT (WCD)
AND THE BROWN'S CREEK WATERSHED DISTRICT (Watershed District)

The WCD will provide the following full-time Administrator and part-time Communications/Project Assistant services to the Watershed District under the terms of the AGREEMENT.

The District Administrator acts exclusively at the discretion and direction of the Watershed District Board of managers in implementing, in the course of performing duties under this agreement, the Watershed District's mission and goals, and represents the Watershed District's interests in the community. At the direction of the Watershed District President and Board, the Administrator provides leadership and coordination in determining and implementing the Watershed District's goals, programs, and priorities.

Specific duties include:

- With the Board of Managers, develop and adjust goals, programs, policies, projects and priorities to ensure prudent use and management of water and related land resources in the Watershed District. Tasks include: developing and annually revise the Watershed District work plan; managing goal setting, Watershed District projects, and revisions to the Watershed Resources Management Plan; drafting the annual report and annual communication report.

- Maintain communications with other watershed districts, governmental organizations, and community leaders to obtain information and learn techniques pertinent to Watershed District operations.

- Manage finances and budget preparation and presentation. Assure continued financial stability and available resources to accomplish operating and long range objectives. Prepare and present monthly financial reports to the Board.

- Keep current with pertinent legislation and the availability of grants.

- Coordinate permit applications and project reviews with the consulting engineer, district inspector, legal counsel, regulatory agencies, cities, and applicants. Provide Watershed District residents public notice of permit reviews.

- Maintain records and provide information to the public, developers and other governmental agencies.

- Provide leadership to Watershed District committees and the Advisory Committees.

- Serve as spokesperson and clearly communicate Watershed District mission, policies and activities. Represent the Watershed District at meetings, seminars and committees.

- Prepare Board agendas and propose annual schedule of goal setting, budget, annual report, contract renewals, Watershed District projects, and revisions of the Water Resource Management Plan. Participate in monthly Board meetings

The Communications/Project Assistant works under the direction of the District Administrator.

Specific duties include:

- Overall BCWD program support; daily clerical tasks; permit tracking, data management, coordination, and communications; project administration and communications;
- Education and outreach support; educational materials preparation; public assistance;
- Citizen Advisory Committee support; technical report editing and writing;
- GIS mapping support; and
- other duties as assigned by the District Administrator.

EXHIBIT B
2023-24 SCOPE OF SERVICES
BEST MANAGEMENT PRACTICES PROGRAM
TECHNICAL SERVICES AGREEMENT
BETWEEN THE WASHINGTON CONSERVATION DISTRICT (WCD)
AND THE BROWN'S CREEK WATERSHED DISTRICT (Watershed District)

At the request of the BCWD the WCD shall furnish the following services under the terms of the AGREEMENT.

TECHNICAL SERVICES:

TASK 1. Site Reviews

Review of potential BMP implementation sites. Determine site-specific BMP Program eligibility and priority with the landowner. Discuss BMP alternatives with landowners, and promote implementation of BMPs. Site reviews will result in providing cost-share information and recommendations to the BCWD Administrator with respect to eligibility, and priority ranking. Up to two hours of the initial landowner contact will be covered by the Washington County Land and Water Resources technical assistance funding.

TASK 2. BMP Design and Installation Monitoring (Site Inspections)

Provide BMP design assistance, using WCD technical resources. Provide landowner and the BCWD Administrator a concept drawing, initial cost-estimate, final design and final cost estimate after approval of the concept drawings. The WCD will monitor construction activities to verify proper implementation of BMPs.

2023 – 186 Hours @ $70/hour = $13,020/year
2024 – 186 Hours @ $73/hour = $13,578/year
Task 2 Total = $26,598

TASK 3. Long Term Monitoring

The WCD will provide long term monitoring of installed BMPs. The amount and frequency of monitoring will be as directed by the BCWD Administrator, based on the individual BMP installed.

2023- 40 hours @ $42/hour = $1,680
2023- 40 hours @ $44/hour = $1,760
Task 3 Total = $3,440

TASK 4. BMP Maintenance

- Monthly Pretreatment Cleaning of Countryside Auto (April-Oct)= 14 hours/year @ seasonal rate
- Iron Enhanced Sand Filter: Monthly Surficial Raking (June-Sept) = 16 hours/year @ seasonal rate
- Purple Loosetrife Treatment along Mendel Wetland = 8 hours/year @ seasonal rate
- Crew oversight and coordination = 6 hours/year @ Tech III rate

2023- 38 hours @ $42/hour + 6 hours @ $66/hour= $1,992
2024- 38 hours @ $44/hour + 6 hours @ $68/hour= $2,080
Task 4 Total = $4,072

TASK 5. Inspection Database

The WCD will maintain an ESRI ArcGIS Online based database, developed by WCD, for performing and storing erosion and sediment control inspections, BMP maintenance inspections, and BMP maintenance activities. WCD will purchase and administer an ESRI Mobile Worker license on behalf of BCWD. BCWD will retain ownership of the license. BCWD data will be entered into and maintained in the database created and maintained pursuant to this paragraph at

the sole and exclusive discretion and direction of the BCWD administrator. Any data designated not-public by the BCWD administrator will be immediately removed from the database created and maintained pursuant to this paragraph, except as necessary for WCD to fulfill any obligation under the Data Practices Act. Any data removed by or at the direction of the BCWD administrator will be restored only at the direction of the BCWD administrator. For the maintenance of the database, the BCWD will reimburse WCD as follows:

2023-= $1,000
2024- = $1,000
Task 5 Total = $2,000

Totals:

2023 TASKS 1-5: $17,692
2024 TASKS 1-5: $18,418

2023-2024 TOTAL NOT TO EXCEED – TASKS 1-4: $36,110

EXHIBIT C
2023-24 SCOPE OF SERVICES
WATER MONITORING PROGRAM
TECHNICAL SERVICES AGREEMENT
BETWEEN THE WASHINGTON CONSERVATION DISTRICT (WCD)
AND THE BROWN'S CREEK WATERSHED DISTRICT (Watershed District)

Monitoring Summary		Labor Cost	Travel/Time/ Mileage Surcharge	Equipment Rental + Capital Equipment	Lab/Outsourcing Cost	Total Cost
Total Lake WQ Monitoring 2023-includes chlorides		$25,297	$0	$0	$9,924	$35,221
Total Lake WQ Monitoring 2024		$24,141	$0	$0	$9,285	$33,426
Total Lake Gage Monitoring/Year		$4,663	$0	$0	$0	$4,663
Total Stream WQ and/or Discharge Monitoring/Year		$56,984	$10,404	$1,275	$9,850	$78,513
Total Special Stream/Drainage Monitoring/Year		$8,976	$476	$200	$366	$10,018
Monitoring Report		$14,800	$0	$0	$0	$14,800
Total 2023 Monitoring Costs		**$110,720**	**$10,880**	**$1,475**	**$20,140**	**$143,215**
Total 2024 Monitoring Costs		**$109,564**	**$10,880**	**$1,475**	**$19,501**	**$141,420**
Total 2023-2024 Monitoring Costs		**$220,284**	**$21,760**	**$2,950**	**$39,641**	**$284,635**

EXHIBIT D
2023-24 SCOPE OF SERVICES
VOLUNTEER STREAM MONITORING PROGRAM
TECHNICAL SERVICES AGREEMENT
BETWEEN THE WASHINGTON CONSERVATION DISTRICT (WCD)
AND THE BROWN'S CREEK WATERSHED DISTRICT (Watershed District)

Under the terms of the AGREEMENT, the WCD shall:

TECHNICAL SERVICES:

Task 1. Training and training workshops
Coordinate and provide training and training workshops to the volunteer school groups to assure that the sampling is done correctly. Provide up-to-date program standards, manuals, identification resources, and educational materials. (9 hours per year @ Specialist I rate)

Task 2. Equipment coordination
Determine equipment needs of volunteer school groups and acquire the needed equipment and bring it to the volunteer school groups as needed. (5 hours/year @ Specialist I rate)

Task 3. Data collection and identification assistance
Coordinate volunteer school groups and assist in data collection during one spring and one fall sampling event per year. Assure that volunteer school groups are following program standards. Assist in identification of macroinvertebrates where needed. (10 hours/year @ Specialist I rate)

Task 4. Data management
Manage collected data and add to previously collected data. (5 hours/year @ Specialist I rate)

Task 5. Establishing and Maintaining Volunteer Groups
Assist the BCWD in future identification of interested volunteer groups to perform and implement the BCWD volunteer stream-monitoring program.

Task 6. Site Identification
Coordinate with the BCWD to identify any prospective monitoring sites that may be necessary to fully implement the goals of the BCWD volunteer stream monitoring program.

Task 7. Miscellaneous Services
Other services requested by the BCWD necessary to implement and carry out the program.

2023 Amount for WCD time: $2,030 (29 hours @ $70/hour)
2024Amount for WCD time: $2,117 (29 hours @ $73/hour)
Estimated amount for equipment, transportation, substitutes 2023-24: $3,853.

Total amount 2023-24: $8,000

Contract Number: 23-01 BCWD

AGREEMENT BETWEEN
WASHINGTON CONSERVATION DISTRICT AND
BROWN'S CREEK WATERSHED DISTRICT

A. PARTIES

This agreement is made and entered into by Washington Conservation District, (WCD), and the Brown's Creek Watershed District (Watershed District).

B. PURPOSE, AUTHORITY

WHEREAS, the Watershed District has requested assistance from the WCD to implement the policies specified in MINN. STAT. §§ 103A.206, 103B.201 and 103D.201;
WHEREAS, the WCD is authorized to enter agreements to provide such assistance pursuant to MINN. STAT. §§ 103C.331, SUBD. 3 and 7 and 103D.335, subd. 21; and
WHEREAS Minnesota Statutes section 471.59 authorizes the Watershed District and WCD to enter this agreement.

NOW, THEREFORE, the parties agree as follows:

C. TERM OF CONTRACT

The term of this agreement shall be from January 1, 2023 to December 31, 2024, unless extended or terminated earlier as provided herein.

D. SCOPE OF SERVICES

The WCD will perform all services and furnish and deliver work products described in Exhibits A through D, attached to and made part of this agreement and hereinafter referred to altogether as "the Services."

E. COST

In consideration for the Services provided under this agreement, the WCD shall charge the Watershed District at the rates set forth in Section F and accompanying exhibits. The total payment under this agreement will not exceed $390,513.50 in 2023 and $398,556.50 in 2024. Payment for services performed and work product provided under each of the exhibits attached hereto will not exceed the following per-exhibit amounts:

Exhibit	***Service***	***2023***	***2024***
Exhibit A	Administrative Services	$225,650	$234,675
Exhibit B	Best Management Practices Program	$17,692	$18,418
Exhibit C	Water Monitoring Program-(labor and travel)	$121,600	$120,444
	Water Monitoring Program-expenses (supplies, equipment, and lab fees)	$21,615	$20,976
Exhibit D	Volunteer Stream Monitoring Program (labor)	$2,030	$2,117
	Volunteer Stream Monitoring Program (expenses)	$1,926.50	$1,926.50
TOTALS		**$390,513.50**	**$398,556.50**

F. BILLING RATE AND PAYMENTS

1. For 2023 & 2024, services provided by the WCD in accordance with Exhibit B will be billed on an hourly basis at the following hourly rates.

	2023	2024
Seasonal	$42.00	$44.00
Technician I & II	$62.00	$64.00
Technician III	$66.00	$68.00
Specialist I	$70.00	$73.00
Specialist II	$76.00	$79.00
Specialist III	$82.00	$85.00
Engineer/WCD Manager	$92.00	$95.00

   Invoices for Exhibit B services performed will be sent on a monthly basis and will list specifically the work performed. For services performed and work products provided in accordance with Exhibits A, C, and D, the WCD will bill the Watershed District monthly on a lump sum basis, plus actual direct project and lab expenses. All invoices will list specifically the work performed. Invoices are payable by the Watershed District within 35 days.
2. Office supplies, reproduction expenses, and transportation are included in the hourly rate. Other expenses are to be reimbursed at actual cost.

G. EQUAL EMPLOYMENT OPPORTUNITY- CIVIL RIGHTS

During the performance of this agreement, the WCD agrees to the following:
No person shall, on the grounds of race, color, religion, age, sex, disability, marital status, public assistance, criminal record, creed or national origin, be excluded from full employment rights in, be denied the benefits of, or be otherwise subjected to discrimination under any program, service, or activity under the provisions of and all applicable federal and state laws against discrimination including the Civil Rights Act of 1964.

H. DUTY OF CARE; LEGAL COMPLIANCE

The WCD will perform the Services under this agreement with due care and in accordance with national standards of professional care. The WCD shall comply with all applicable Federal and State statutes and regulations as well as local ordinances now in effect or hereafter adopted. Failure to meet the requirements of the above may be cause for termination of this agreement.

I. DATA PRACTICES; CONFIDENTIALITY

All data collected, created, received, maintained or disseminated for any purpose by the WCD and the Watershed District pursuant to this Agreement are governed by Minnesota Statutes Chapter 13 (DPA), the Minnesota Rules implementing the DPA and any other applicable state statutes and state rules adopted to implement the DPA, as well as state statutes and federal regulations on data privacy. The WCD agrees to abide by these statutes, rules and regulations and as they may be amended. The WCD further agrees that it will not disclose and will hold in confidence any and all proprietary data and materials owned or possessed by Watershed District and so denominated by Watershed District, subject to the DPA. All records kept by the WCD and Watershed District with respect to the work performed under the agreement will be subject to examination by the representative of each party hereto, except as protected or prohibited by law.

If WCD receives a request for data pursuant to the DPA that may encompass data possesses or has created as a result of this agreement, it will inform the Watershed District immediately and transmit a copy of the request. If the request is addressed to the Watershed District, the WCD will not provide any information or documents, but will direct the inquiry to the Watershed District. If the request is addressed to the WCD, the WCD will be responsible to determine whether it is legally required to respond to the request and otherwise what its legal obligations are, but will notify and consult with the Watershed

District and its legal counsel before replying. Nothing in the preceding sentence supersedes the WCD's obligations under this agreement with respect to protection of Watershed District data, property rights in data or confidentiality.

J. AUDITS, REPORTS, AND MONITORING PROCEDURES

The WCD will:

1. Maintain records for six years that reflect all revenues, cost incurred and services provided in the performance of the agreement.
2. Agree that the State Auditor, or legislative authority, or any of their duly authorized representatives at any time during normal business hours, and as often as they may deem reasonably necessary, shall have access to the rights to examine audit, excerpt, and transcribe any books, documents, papers, records, etc., and accounting procedures and practices of the WCD which are relevant to the agreement.

K. INDEMNITY

Neither party to this agreement agrees to be responsible for the acts or omissions of the other, its agents, officials, contractors or employees within the meaning of Minnesota Statutes section 471.59, subdivision 1a. The WCD and Watershed District each will hold harmless, defend and indemnify the other, its officers, board members, employees and agents for any and all damage, liability, cost or claim (including reasonable attorneys' fees) to the extent it is the result of its negligent act or of another action or inaction that is the basis for its liability in law or equity. Each party agrees to provide proof of contractual liability insurance upon request. This paragraph does not constitute a waiver or otherwise diminish any statutory or common law defense, immunity or limit on liability the parties may enjoy as against any third party.

L. INDEPENDENT CONTRACTOR

It is agreed that nothing herein contained is intended or should be construed in any manner as creating or establishing the relationship of co-partners between the parties hereto or as constituting the WCD as the agent, representative, or employee of Watershed District for any purpose or in any manner whatsoever. The WCD is to be and shall remain an independent contractor with respect to the Services.

The WCD represents that it has, or will secure at its own expense, all personnel required in performing services under this agreement. Any and all personnel of the WCD or other person, while engaged in the performance of any work or services required by the WCD under this agreement, shall have no contractual relationship with the Watershed District and shall not be considered employees of the Watershed District.

M. MODIFICATIONS

Any material alteration or variation shall be reduced to writing as an amendment and signed by the parties. Any alteration, modification, or variation deemed not to be material by written agreement of the WCD and the Watershed District shall not require written approval.

N. MERGER

It is understood and agreed that the entire agreement of the parties is contained here, except as modified during the term of the agreement by a writing under Paragraph M above concerning a non-material change, and that this agreement supersedes oral agreements and negotiations between the parties relating to this subject matter. All items referred to in this agreement are incorporated or attached and deemed to be part of the agreement.

O. TERMINATION

Either the WCD or the Watershed District may terminate this agreement with or without cause by giving the other party

thirty (30) days written notice prior to the effective date of such termination. If the Watershed District terminates this agreement, it may specify work to be performed by the WCD before termination is effective and shall pay the WCD for services performed by the WCD up to the time specified for termination. If the WCD terminates the agreement, it will not be compensated for partial completion of a task.

P. OWNERSHIP OF DOCUMENTS AND INTELLECTUAL PROPERTY

All property of the Watershed District used, acquired or created in the performance of work under this agreement, including documents and records of any kind, shall remain the property of the Watershed District. The Watershed District shall have the sole right to use, sell, license, publish, or otherwise disseminate any product developed in whole or in part during the performance of work under this agreement.

Q. APPROVAL AND NON-ASSIGNMENT OF SERVICES; SUBCONTRACTING

The Watershed District shall have the authority to approve or disapprove of the WCD's selection of any individual WCD employee to perform services or provide work product under this agreement. WCD will subcontract certain of the services as specified in Exhibit B to RESPEC, a private Minnesota corporation (Subcontractor). Otherwise, WCD will not further assign, subcontract or transfer any other obligation or interest in this agreement or any of the Services without the written consent of Watershed District and pursuant to any conditions included in that consent. Watershed District consent to the subcontracting specified in Exhibit B or any other subcontracting does not relieve WCD of its responsibility to perform the Services or any part thereof, nor in any respect its warranty, insurance, indemnification, duty to defend or agreement to hold harmless with respect to the services, except that WCD agrees that it will indemnify, defend and hold harmless Watershed District, its board members and agents from any and all actions, costs, damages and liabilities of any nature to the degree they are the result of Subcontractor's negligence or other action or inaction by Subcontractor that is the basis for Subcontractor's liability.

IN TESTIMONY WHEREOF the parties execute this agreement by their duly authorized officers, intending to be legally bound.

Brown's Creek Watershed District

BY: _____
President Date

Washington Conservation District

BY: _____
Manager Date

Approved as to form and execution

_____
WATERSHED DISTRICT counsel

EXHIBIT A
2023-24 SCOPE OF SERVICES
ADMINISTRATIVE SERVICES

The WCD will provide the following full-time Administrator (as defined herein) and part-time Communications/Project Assistant (as defined herein) services to the Watershed District.

The Watershed District Administrator acts exclusively at the discretion and direction of the Watershed District board of managers in performing and directing the Services and the Watershed District's projects and programs.

Specific duties include:

- With the Board of Managers, develop and adjust goals, programs, policies, projects and priorities to ensure prudent use and management of water and related land resources in the Watershed District. Tasks include: developing and annually revising the Watershed District work plan; managing goal setting, Watershed District projects, and revisions to the watershed management plan adopted in accordance with Minnesota Statutes section 103B.231; drafting the annual report and annual communication report.

- Maintain communications with other watershed districts, governmental organizations, and community leaders to obtain information and learn techniques pertinent to Watershed District operations.

- Manage finances and budget preparation and presentation. Assure continued financial stability and available resources to accomplish operating and long range objectives. Prepare and present monthly financial reports.

- Keep current with pertinent legislation and the availability of grants.

- Coordinate permit applications and project reviews with the Watershed District consulting engineer, district inspector, legal counsel, regulatory agencies, cities, and applicants. Provide Watershed District residents public notice of permit reviews.

- Maintain records and provide information to the public, developers and other governmental agencies.

- Provide leadership to Watershed District committees and advisory committees.

- Serve as spokesperson and clearly communicate Watershed District mission, policies and activities. Represent the Watershed District at meetings, seminars and committees.

- Prepare board agendas and propose annual schedule of goal setting, budget, annual report, contract renewals, Watershed District projects, and revisions of the watershed management plan. Participate in monthly board meetings

The Communications/Project Assistant works under the direction of the Administrator.

Specific duties include:

- Overall Watershed District program support; daily clerical tasks; permit tracking, data management, coordination, and communications; project administration and communications;
- Education and outreach support; educational materials preparation; public assistance;
- Citizen Advisory Committee support; technical report editing and writing;
- Attendance at and preparation of draft minutes of Watershed District meetings;
- GIS mapping support; and
- other duties as assigned by the Administrator.

EXHIBIT B
2023-24 SCOPE OF SERVICES
BEST MANAGEMENT PRACTICES PROGRAM

At the request of the BCWD the WCD shall furnish the following services under the terms of the AGREEMENT.

TECHNICAL SERVICES:

TASK 1. Site Reviews

Review of potential best-management practice (BMP) implementation sites. Determine site-specific BMP Program eligibility and priority in accordance with criteria established by the Watershed District board of managers. Discuss BMP alternatives with landowners, and promote implementation of BMPs. Site reviews will result in providing cost-share information and recommendations to the Administrator with respect to eligibility, and priority ranking. Up to two hours of the initial landowner contact will be paid by the Washington County Land and Water Resources technical assistance funding per unique request.

TASK 2. BMP Design and Installation Monitoring (Site Inspections)

Provide BMP design assistance, using WCD technical resources. Provide landowner and the Administrator a concept drawing, initial cost-estimate, final design and final cost estimate after approval of the concept drawings. The WCD will monitor construction activities to verify proper implementation of BMPs.

2023 – 186 Hours @ $70/hour = $13,020/year
2024 – 186 Hours @ $73/hour = $13,578/year
Task 2 Total = $26,598

TASK 3. Long Term Monitoring

The WCD will provide long term monitoring of installed BMPs. The amount and frequency of monitoring will be as directed by the Administrator, based on the individual BMP installed.

2023- 40 hours @ $42/hour = $1,680
2023- 40 hours @ $44/hour = $1,760
Task 3 Total = $3,440

TASK 4. BMP Maintenance

- Monthly Pretreatment Cleaning of Countryside Auto (April-Oct)= 14 hours/year @ seasonal rate
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2024- 38 hours @ $44/hour + 6 hours @ $68/hour= $2,080
Task 4 Total = $4,072

TASK 5. Inspection Database

The WCD will maintain an online database utilizing a proprietary ESRI ArcGIS Online platform. The database will be for performing and storing data from on erosion and sediment control inspections, BMP maintenance inspections, and BMP maintenance activities. WCD has purchased and will continue to administer all necessary licenses for use and maintenance of the database on behalf of Watershed District. Watershed District retains ownership of all necessary licenses for use and maintenance of the database. Watershed District data will be entered into and maintained in the database created and maintained pursuant to this paragraph at the sole and exclusive discretion and direction of the Administrator. Any data designated not-public by the Administrator will be immediately removed from the database created and maintained pursuant to this paragraph,

except as necessary for WCD to fulfill any obligation under the Data Practices Act. Any data removed by or at the direction of the Administrator will be restored only at the direction of the Administrator. For the maintenance of the database, Watershed District will reimburse WCD as follows:

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2024- = $1,000
Task 5 Total = $2,000

Totals:

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2024 TASKS 1-5: $18,418

2023-2024 TOTAL NOT TO EXCEED – TASKS 1-4: $36,110

EXHIBIT C
2023-24 SCOPE OF SERVICES
WATER MONITORING PROGRAM

Monitoring Summary		Labor Cost	Travel/Time/ Mileage Surcharge	Equipment Rental + Capital Equipment	La
Total Lake WQ Monitoring 2023-includes chlorides		$25,297	$0	$0	
Total Lake WQ Monitoring 2024		$24,141	$0	$0	
Total Lake Gage Monitoring/Year		$4,663	$0	$0	
Total Stream WQ and/or Discharge Monitoring/Year		$56,984	$10,404	$1,275	
Total Special Stream/Drainage Monitoring/Year		$8,976	$476	$200	
Monitoring Report		$14,800	$0	$0	
Total 2023 Monitoring Costs		**$110,720**	**$10,880**	**$1,475**	
Total 2024 Monitoring Costs		**$109,564**	**$10,880**	**$1,475**	
Total 2023-2024 Monitoring Costs		**$220,284**	**$21,760**	**$2,950**	

EXHIBIT D
2023-24 SCOPE OF SERVICES
VOLUNTEER STREAM MONITORING PROGRAM

Under the terms of the AGREEMENT, the WCD shall:

TECHNICAL SERVICES:

Task 1. Training and training workshops
Coordinate and provide training and training workshops to the volunteer school groups to assure that the sampling is done correctly. Provide up-to-date program standards, manuals, identification resources, and educational materials. (9 hours per year @ Specialist I rate)

Task 2. Equipment coordination
Determine equipment needs of volunteer school groups and acquire the needed equipment and bring it to the volunteer school groups as needed. (5 hours/year @ Specialist I rate)

Task 3. Data collection and identification assistance
Coordinate volunteer school groups and assist in data collection during one spring and one fall sampling event per year. Assure that volunteer school groups are following program standards. Assist in identification of macroinvertebrates where needed. (10 hours/year @ Specialist I rate)

Task 4. Data management
Manage collected data and add to previously collected data. (5 hours/year @ Specialist I rate)

Task 5. Establishing and Maintaining Volunteer Groups
Assist the BCWD in future identification of interested volunteer groups to perform and implement the BCWD volunteer stream-monitoring program.

Task 6. Site Identification
Coordinate with the BCWD to identify any prospective monitoring sites that may be necessary to fully implement the goals of the BCWD volunteer stream monitoring program.

Task 7. Miscellaneous Services
Other services requested by the BCWD necessary to implement and carry out the program.

2023 Amount for WCD time: $2,030 (29 hours @ $70/hour)
2024Amount for WCD time: $2,117 (29 hours @ $73/hour)
Estimated amount for equipment, transportation, substitutes 2023-24: $3,853.

Total amount 2023-24: $8,000

WASHINGTON CONSERVATION DISTRICT
455 HAYWARD AVE N
OAKDALE, MN 55128
651-330-8220 [PHONE]
651-330-7747 [FAX]
WWW.MNWCD.ORG

Brown's Creek Watershed District Stewardship Program Summary

Program Summary:

a) $15,000 available for at least 30 projects up $500 in 2022.

b) Eligible project materials include: Native plants (including pollinator gardens), small buffer strips, turf alternatives, waterspout gardens, rain barrels, targeted water education, information, or outreach activities

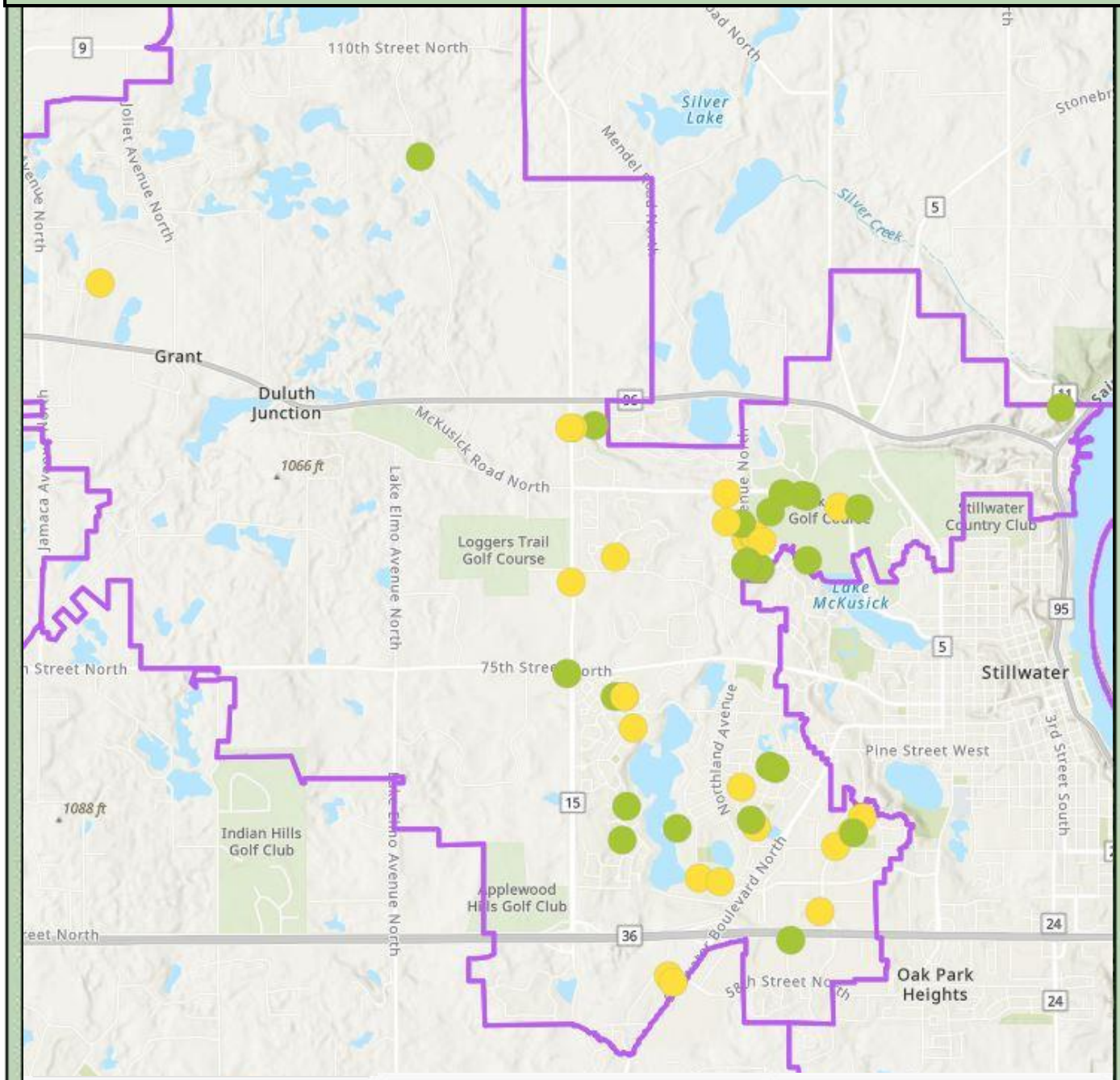
c) 11 applications received in 2022 (5 completed, 4 in-progress, 2 deemed to be beyond the scope and scale of the Stewardship Grant program).

Installed Projects:

Landowner	Practice Type	Address	Date Installed
Kristin Norton	Native landscaping	5715 Newberry Ave N	7/22/22
Michael Brabender	Harvest/reuse	2326 Boom Rd	7/31/22
Brian Zwach	Native landscaping	647 Croixwood Pl.	8/24/22
Bruce Tanquist	Harvest/reuse	9704 Manning Ave N	7/10/22
Phyllis & Paul Comstock	Native landscaping	9355 84th St N	11/3/22

2022 Reimbursements: $2,000.00 (4 Stewardship Grants)

Recommendations for 2023: 1) Expand outreach activities to reach more residents in the district and increase overall program awareness. 2) Provide further technical assistance to maximize opportunities for water quality improvement, as well as habitat enhancement. 3) Document completed projects for BCWD outreach & education.



Maintenance Priority

- No Maintenance
- Degraded Aesthetics
- Partially Functioning
- Nonfunctional

BROWN'S CREEK WATERSHED DISTRICT

BCWD

2022 BMP Inspections

Degraded Aesthetics	No Maintenance	Overall
27	25	52 Total

WASHINGTON CONSERVATION DISTRICT

Brown's Creek Watershed District BMP Maintenance Summary

Agreement Summary:

a) Maintain 20 BMP's: Oak Glen Loop* (19), Countryside Auto (1). Maintenance activities include inlet cleanout, weed removal, and litter removal. Monthly inspection and surficial maintenance of the BCWD IESF and harvest pond system. Assist with other tasks as directed such as invasive species management. *Some Oak Glen loop BMPs were adopted in the Adopt-a-Raingarden program.
b) Material costs included top soil, replacement sedums, mulch as well as fees for composting and equipment used.
c) Costs for services for these activities shall not exceed $2,500.

Services Provided:

Date	Activity	Time
2/15/2022	Kittentail fieldwork	7
3/29/2022	IESF Communications	.5
5/12/2022	Oak Glen inlet cleanout	3
5/20/2022	IESF Maintenance and Inspection, Countryside sweeping	3.5
6/14/2021	IESF Maintenance and Inspection, Countryside sweeping	3.5
7/12/2021	IESF Maintenance and Inspection, Countryside sweeping	4
7/20/2021	Community thread raingarden maintenance	1
8/2/2022	Oak Glen vegetative evaluation	1
8/18/2022	Plant ordering and equipment maintenance	1
9/1/2022	IESF Maintenance and Inspection, Countryside sweeping	1
9/12/2022	Oak Glen planting prep	2
9/13/2022	Oak Glen vegetative evaluation and planting prep	2
9/27/2022	Oak Glen Weeding	3.5
10/5/2022	Oak Glen supplemental planting	6

Expenditure Totals: $2,112.00 for time (39 hours)

When possible the WCD maintenance program leverages other conservation resources to assist in BMP maintenance activities.

Recommendations for 2023:

Oak Glen raingardens transferring to City of Stillwater maintenance agreement. Continue monthly Countryside Auto and surficial IESF maintenance with support for other vegetative management as directed.

memo

Project Name |	2022 Aquatic Plant Management Services	**Date** |	1/4/2022
To / Contact info |	BCWD Board of Managers		
Cc / Contact info |	Karen Kill, District Administrator		
From / Contact info |	Jimmy Marty, Joe Pallardy - EOR		
Regarding |	Benz Lake Point Intercept Survey		

Background

Point-intercept aquatic plant surveys of Benz Lake were completed on August 23, 2022. The point-intercept method is considered the standard protocol by MNDNR for sampling macrophytes (aquatic plants) because it offers a methodology that is quantitative (e.g., frequency of occurrence), repeatable (can be used to track trends in aquatic plant communities over time), and georeferenced (can be used to compare plant communities within different areas of a lake). Point spacing of 50 meters was used for the survey and totaled 70 sampling points. At each point, a vegetation sampling rake was used to collect plants and assign a species density rating of 1 (sparse), 2 (common), or 3 (abundant). From this data, a Floristic Quality Index (FQI) was calculated that measures the diversity and health of the aquatic plant community.

The FQI calculation is based on both the quantity of species observed (species richness) as well as the quality of each individual species. Aquatic plants in Minnesota have been assigned a coefficient of conservatism value (c-value) ranging from 0 to 10. The c-value of all aquatic plants sampled from a lake is used to determine the FQI for a given lake. Species with a c-value of 0 include non-native species such as curly-leaf pondweed (*Potamogeton crispus*) that are indicative of a highly disturbed environment. In comparison, the native species Oakes pondweed (*Potamogeton oakesainus*) has a c-value of 10 because this species is extremely rare and only found in undisturbed, pristine waterbodies.

The average FQI score for Minnesota Lakes in the North Central Hardwood Forest (NCHF) ecoregion is 23.7±8 with a median of 22.5 (Radomski and Perleberg, 2012). A study of 41 Minnesota lakes surveyed across the state, as part of the EPA's National Lakes Assessment Project, yielded a maximum FQI score of 30. In 2016, the MNDNR developed a robust geodatabase of aquatic plant surveys and associated FQI scores from more than 3,600 lakes across the state. FQI scores ranged from 0 to 49 with a median of 25.1±9.

Survey Results

The FQI score for Benz Lake (19.6) was just below median and average FQI scores for assessed lakes in the DNR geodatabase and the NCHF ecoregion, but within the standard deviations. Sampling points located in the littoral zone of Benz Lake contained an average of 1.8 species per sample site.

Benz Lake is a shallow lake and is entirely littoral. The lake is in the clear water, aquatic plant dominated state, which is considered the ecologically preferred stable state for shallow lakes. The clear water state provides good fish, invertebrate, and waterfowl habitat compared to the algae-dominated turbid state.

Fern-leaf pondweed (*Potamogeton robbinsii*), coontail (*Ceratophyllum demersum*), and white-water lily (*Nymphaea odorata*) were the most commonly encountered species. All other species had less

than 10% frequency of occurrence. Creeping bladderwort, a notably conservative species (c-value = 9), was observed at one location (Figure 1).

The bladders of bladderworts often contain communities of microorganisms (bacteria, algae, and diatoms). The prevailing thought is these bladders help to establish a mutually beneficial relationships between the microorganisms and the plant, possibly helping the plant to obtain nutrients.

Figure 1. Creeping Bladderwort (*Utricularia gibba*) was found on Benz Lake in 2022. Photo courtesy of Minnesota Wildflowers.

One specimen of curly-leaf pondweed (*Potamogeton crispus*) was observed, but the survey was conducted outside the normal growing season for *P. crispus* and its distribution and density could be greater earlier in the season.

The results of the survey for Benz Lake and associated FQI scores are summarized in Table 1. Included in Table 1 is a list of all native aquatic species sampled and their associated c-values, Frequency of Occurrence (FOO) values, and average rake density rank values. Shoreline species associated with wetland habitats that bordered the lake (e.g., reed canary grass) were excluded from the FQI calculation.

The distribution and density ranking for each individual species with a frequency of occurrence ≥ 10% is mapped for Benz Lake within Appendix A. For each data point mapped, a density ranking of

1 indicates only a few individual plants were observed while a ranking of 3 indicates an abundance of plants.

Table 1. Benz Lake species list and frequency of occurrence.

Common Name	Scientific Name	C-Value	Frequency of Occurrence	Average rake density
Coontail	*Ceratophyllum demersum*	2	35.7%	1.2
Lesser duckweed	*Lemna minor*	5	1.4%	1.0
Star duckweed	*Lemna trisulca*	5	4.3%	1.0
Slender naiad	*Najas flexilis*	5	1.4%	1.0
White water lily	*Nymphaea odorata*	6	24.3%	2.2
Leafy pondweed*	*Potamogeton foliosus*	6	0.0%	N/A
Curly-leaf pondweed*	*Potamogeton crispus*	0	0.0%	N/A
Fern-leaf pondweed	*Potamogeton robbinsii*	8	95.7%	2.6
Flat-stemmed pondweed	*Potamogeton zosteriformis*	6	1.4%	1.0
Unknown arrowhead**	*Sagittaria* sp.	7	1.4%	1.0
Giant bur reed	*Sparganium eurycarpum*	5	2.9%	1.0
Large duckweed	*Spirodela polyrrhiza*	5	8.6%	1.0
Creeping bladderwort	*Utricularia gibba*	9	1.4%	1.0
Common bladderwort	*Utricularia macrorhiza*	5	1.4%	1.0

Summary Table		
FQI = C*√S	**Average C-Value**	5.7
C= Mean coefficient of conservatism value	**Number of species**	12
S= Number of species in sample	**FQI**	**19.6**

*incidental species observation
**likely *S. cristata* or *S. rigida*; lower c-value of *S. rigida* assumed

Conclusions and Management Implications

The results of the point-intercept survey indicate Benz Lake has a plant community of approximately average floristic quality compared to other lakes in the region based on FQI. While not especially diverse, the aquatic plant community is healthy, is home to at least one uncommon species (creeping bladderwort) and is helping maintain the clear water state of the lake. The lake has only recently shifted from a turbid water state (cloudy or muddy water) to a clear water state. Beginning in 2016, water resource professionals with Brown's Creek Watershed District and EOR began noticing a relatively abrupt shift from a turbid water state (cloudy or muddy water) with little aquatic plant growth to a clear water state with abundant aquatic plant growth. Good water clarity is a primary driver of aquatic plant growth and limits competitiveness of curly-leaf pondweed, which was the only aquatic invasive plant observed at Benz Lake. Maintaining good water clarity will support the healthy aquatic plant community of Benz Lake by providing adequate conditions for native plants and limiting existing curly-leaf pondweed. Preventing spread of invasive aquatic plants such as Eurasian watermilfoil and starry stonewort will also protect the aquatic plant community.

Since shifting from the turbid to clear water state, aquatic vegetation has flourished in Benz Lake. During certain times of the year, aquatic plant biomass can become so abundant that it restricts recreational access to certain areas of Benz Lake. This has prompted some concern from landowners and lake users who are interested in evaluating if there is some way to retain aquatic plants but manage them in a way that maximizes the usability of the resource. Further, Benz Lake was identified in the St. Croix River 1W1P document as a "Priority A" lake for internal loading analysis needed. "Priority A" lakes are where internal loading is estimated to *potentially* be a significant contributor to degraded water quality and where not addressing the internal loading could result in sustained degradation. Additional analysis could include the collection and laboratory analysis of lake sediment cores for releasable phosphorus content and phosphorus release rate under oxic and anoxic conditions. EOR limnologists often use this type of information to validate the magnitude of internal loading in comparison with the lake's overall phosphorus budget and to calculate the appropriate alum dosage needed to limit the release of phosphorus from lake sediments. The listing of Benz Lake as a "Priority A" Lake prompted additional evaluation by EOR of how mechanical harvesting of aquatic vegetation might help to control internal loading given its potential to not only remove phosphorus, but also provide a potential recreational benefit to lake users.

Mechanical harvesting has typically been applied as a practice to capture and directly remove phosphorus assimilated into aquatic plant biomass. Additionally, harvesting may also have implications for internal loading dynamics in areas with dense aquatic vegetation. A common misconception is that shallow lakes are homogeneously mixed (not stratified) and that dissolved oxygen concentrations and temperature are similar at the surface in comparison with bottom waters. Recent research ([1, 2]) suggests the opposite, especially in shallow lakes with dense stands of aquatic vegetation. Photosynthesis in surface waters produces oxygen accumulation and CO_2 depletion near the surface whereas respiration in the bottom waters can lead to the formation of anoxic conditions. Further, dense aquatic plant stands restrict light penetration, ultimately leading to the formation of a warmer, oxygen rich surface layer of water on top of cooler, potentially anoxic bottom waters. In addition to large diurnal changes in dissolved oxygen, there are also large changes in pH that are

occurring daily in these dense aquatic plant stands that may influence phosphorus release from the sediments. These intermittent (diurnal) periods of stratification can lead to the release of phosphorous from sediments during anoxia, followed by mixing during the nighttime as surface water temperatures begin to cool.

Potential Next Steps:

Key takeaways from this memo are as follows:

- Benz Lake has near-average floristic quality compared to other lakes in the region.
- Benz Lake has remained in the ecologically preferred clear water, aquatic plant dominated state since 2016.
- Since 2016, in-lake phosphorus concentrations are below the MPCA's North Central Hardwood Forest Ecoregion Total Phosphorus Standard of 60 ug/L (Figure 2).
    a. Note: Benz Lake is currently listed as an impaired lake for excess nutrients. It may be possible to de-list Benz Lake from the impaired waters list.

The most sensible step for Benz Lake seems to be to focus on measures that enhance and/or protect the existing aquatic plant community given the clear correlation between the 2016 shift to a clear water aquatic plant dominated state and in-lake TP concentrations while simultaneously looking for ways to improve recreational access through selective mechanical harvesting.

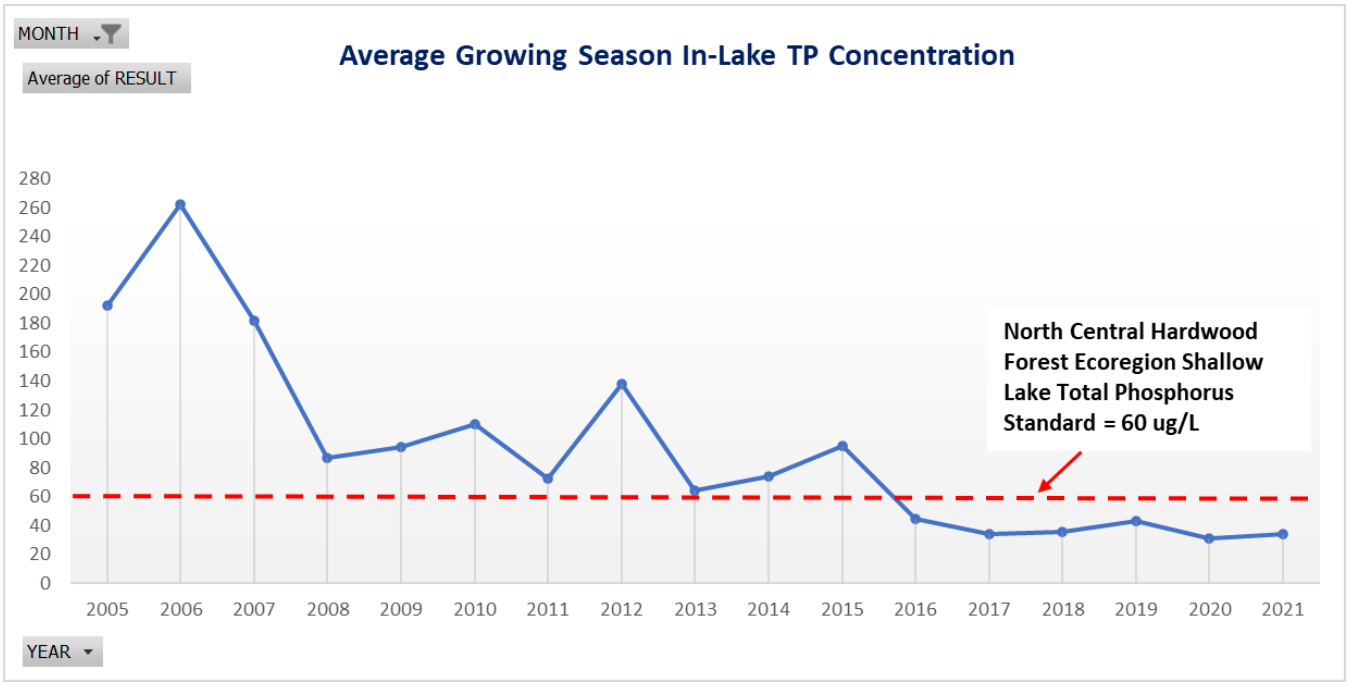


Figure 2. Pivot chart of growing season (June-September) average in-lake total phosphorus (TP) concentrations show a reduction in lake phosphorus concentrations that corresponds to the 2016 transition to a clear water, aquatic plant dominated state.

EOR would like the District to consider the following two options:

Option A

Conduct a microcosm study to evaluate the potential benefits of a strategically and thoughtfully designed mechanical harvesting program to help answer the following questions:

- Is it feasible to use mechanical harvesting to improve recreational usability on Benz Lake
- Does mechanical harvesting help to mitigate phosphorus release from lake sediments?
- Can we quantify the potential benefits to in-lake water quality via removal of phosphorus assimilated into aquatic plant biomass?
- Does harvesting aquatic vegetation help to moderate large diurnal fluxes in dissolved oxygen in shallow lakes, thereby potentially reducing internal loading while also providing a recreation benefit?
- Can harvesting be done sustainably to avoid detrimental impacts to the native aquatic plant community and water quality?
    - Note: Recent research ([3]) conducted on the Phalen Chain of Lakes in the Twin Cities, suggests strategic aquatic plant harvesting can be an effective in-lake management tool.

Option B:

Continue to work with Washington Conservation District and Met Council to review water quality data collected on Benz Lake. Conduct lake-wide point intercept surveys every 3-5 years and compare water quality data with aquatic plant data to evaluate trends.

References:

1) https://royalsocietypublishing.org/doi/10.1098/rspb.2017.1427
2) https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/2020JG006065
3) https://rwmwd.org/wp-content/uploads/2022/06/Strategic-Aquatic-Plant-Harvesting-as-a-Multi-Faceted-In-Lake-Management-Tool-Lakeline-V40-No.4-Winter-2020.pdf

Appendix A

Benz Lake Aquatic Plant Species Distribution

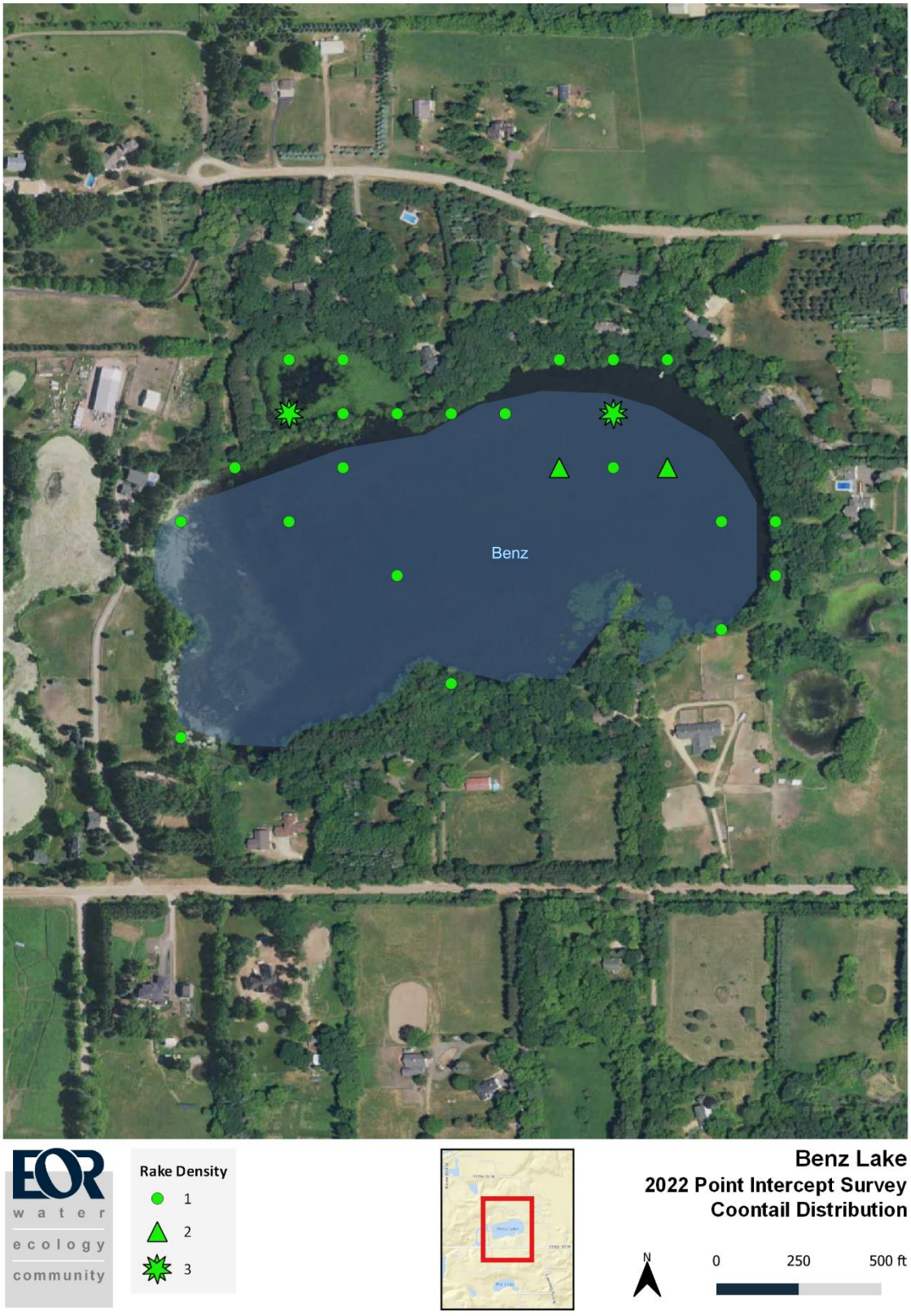


Figure 3. Benz Lake coontail distribution – August 2022.

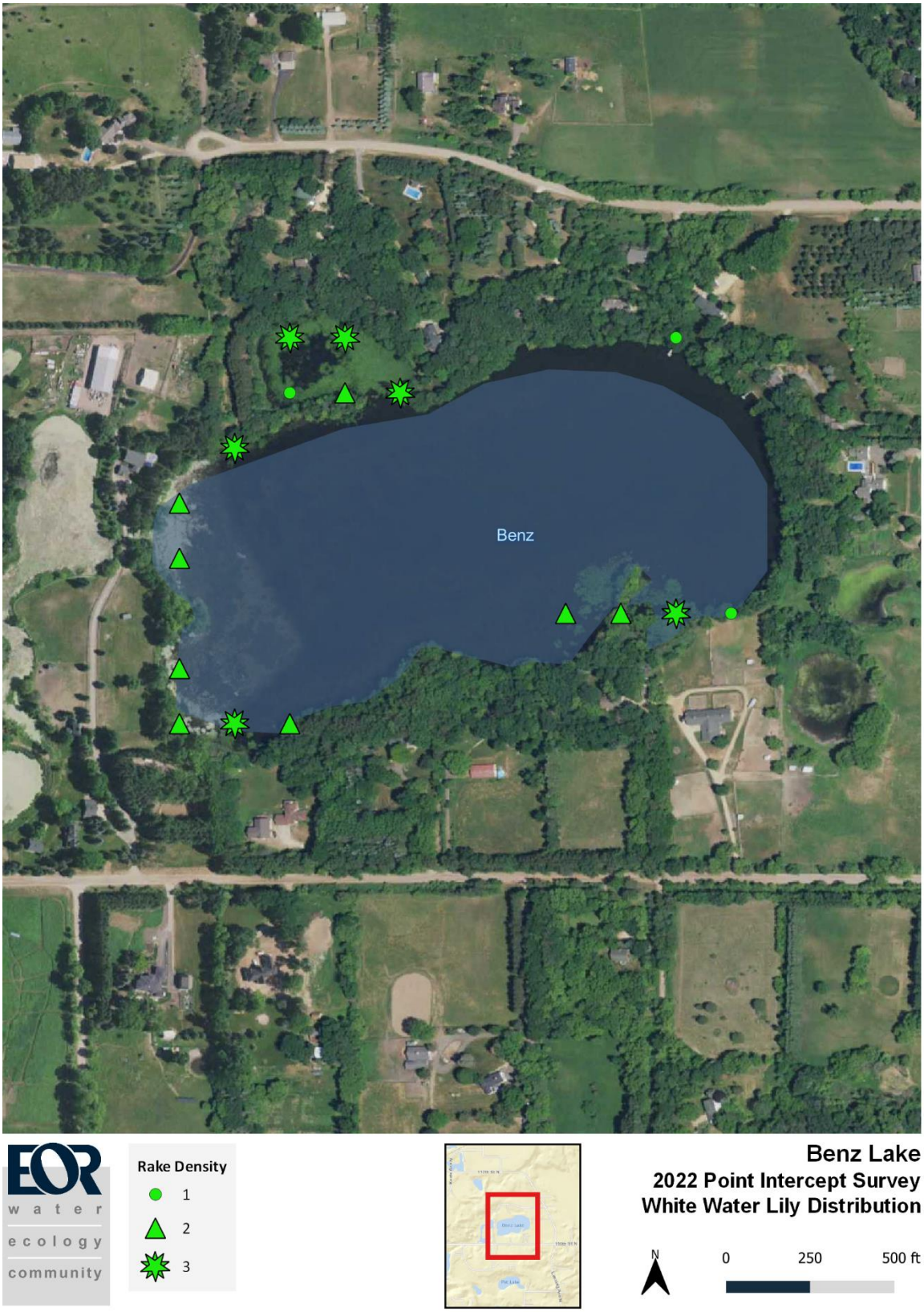


Figure 4. Benz Lake white water lily distribution – August 2022.

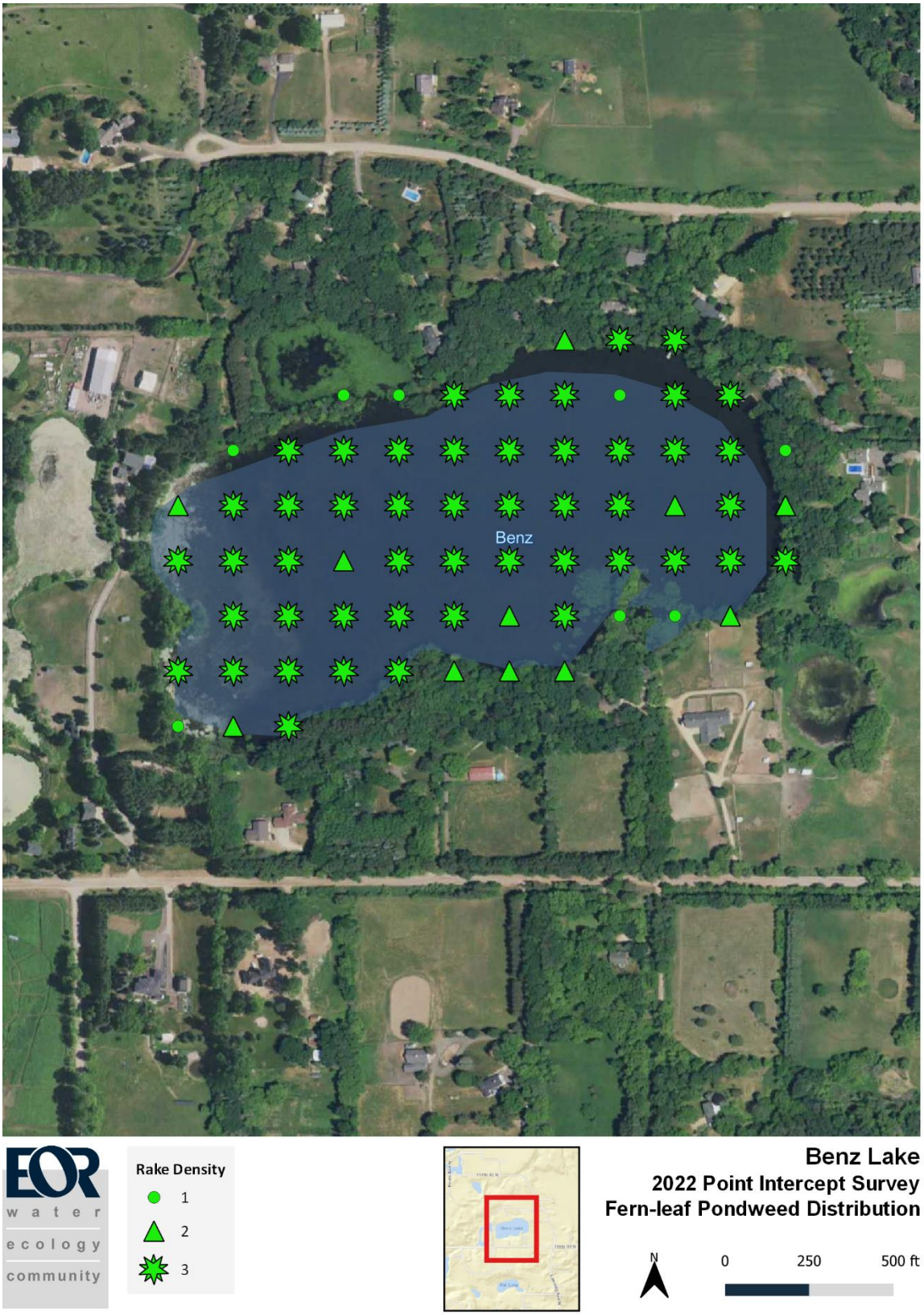


Figure 5. Benz Lake Fern-leaf pondweed distribution – August 2022.

Project Name |	2022 Aquatic Plant Management Services	**Date** |	1/4/2022
To / Contact info |	BCWD Board of Managers		
Cc / Contact info |	–Karen Kill, District Administrator		
From / Contact info |	Jimmy Marty, Chris Long, Joe Pallardy - EOR		
Regarding |	South School Section Lake and Goggins Lake Point Intercept Survey		

Background

Point-intercept aquatic plant surveys of South School Section Lake (SSSL) and Goggins Lake were completed on August 26, 2022. The point-intercept method is considered the standard protocol by MNDNR for sampling macrophytes (aquatic plants) because it offers a methodology that is quantitative (e.g., frequency of occurrence), repeatable (can be used to track trends in aquatic plant communities over time), and georeferenced (can be used to compare plant communities within different areas of a lake). Point spacing of 50-meters was used for the survey and totaled 130 sampling points on South School Section Lake and 75 sampling points on Goggins Lake. At each point, a vegetation sampling rake was used to collect plants and assign a species density rating of 1 (sparse), 2 (common), or 3 (abundant). From this data, a Floristic Quality Index (FQI) was calculated that measures the diversity and health of the aquatic plant community.

The FQI calculation is based on both the quantity of species observed (species richness) as well as the quality of each individual species. Aquatic plants in Minnesota have been assigned a coefficient of conservatism value (c-value) ranging from 0 to 10. The c-value of all aquatic plants sampled from a lake is used to determine the FQI for a given lake. Species with a c-value of 0 include non-native species such as curly-leaf pondweed (*Potamogeton crispus*) that are indicative of a highly disturbed environment. In comparison, the native species Oakes pondweed (*Potamogeton oakesainus*) has a c-value of 10 because this species is extremely rare and only found in undisturbed, pristine waterbodies.

The average FQI score for Minnesota Lakes in the North Central Hardwood Forest (NCHF) ecoregion is 23.7±8 with a median of 22.5 (Radomski and Perleberg, 2012). A study of 41 Minnesota lakes surveyed across the state, as part of the EPA's National Lakes Assessment Project, yielded a maximum FQI score of 30. In 2016, the MNDNR developed a robust geodatabase of aquatic plant surveys and associated FQI scores from more than 3,600 lakes across the state. FQI scores ranged from 0 to 49 with a median of 25.1±9.

Survey Results

Floristic Quality Index (FQI) Comparison

The FQI scores for SSSL and Goggins Lake were similar: 15.6 and 15.5 respectively, which is below the median FQI score for assessed lakes in the DNR geodatabase (Table 3 and Table 4).

South School Section Lake

Sampling points located in the littoral zone of SSSL (87 of 130 total points) contained an average of 1.5 species per sample site. In total, 12 aquatic or emergent species were observed in SSSL. Coontail (*Ceratophyllum demersum*), Canada waterweed (*Elodea canadensis*), and Eurasian watermilfoil (*Myriophyllum spicatum*) were by far the most encountered species, with white water lily (*Nymphaea odorata*) the next most common species. All other species had less than 10% frequency of occurrence.

Goggins Lake

Goggins Lake, which was 100% littoral (less than 15 feet deep), displayed a slightly better distribution of species. Although only 11 aquatic or emergent species were observed in Goggins, it contained an average of 1.8 species per sample site. Despite the near ubiquity of coontail (91% of points), fern leaf pondweed was widely encountered (40% of points). Four (4) other species had a frequency of occurrence (FOO) greater than 10%, including flat-stemmed pondweed (*Potamogeton zosteriformis*), Canada waterweed, and Eurasian watermilfoil. Notably, a single, immature individual of a floating-leaved pondweed (*Potamogeton* spp.) was observed that resembled several state-listed species, but sufficient features were not present to make a species identification.

Invasive Species

The plant community in both lakes was generally dominated by native species, although two invasive species were observed during the surveys: Eurasian watermilfoil and curly-leaf pondweed (*Potamogeton crispus*).

Eurasian Watermilfoil

Eurasian watermilfoil (EWM) was observed at 44% of the sample points in SSSL and 12.2% of sample points in Goggins Lake. Eurasian watermilfoil was generally observed growing in patches with tall prominent stalks intermixed with native species. Heavy growth was observed on SSSL in the northern portion of the lake, and it is widely distributed throughout the entire shoreline (Photograph 1). EWM density on Goggins Lake is low and more sparsely distributed throughout the lake.

Curly-leaf pondweed

Very little curly-leaf pondweed (CLP) was observed during the surveys. CLP dies back in mid-summer and peak growth was not captured by this survey. CLP was found at only 1 sample point of 130 on SSSL (0.8% of points). On Goggins, a single turion (a wintering bud that becomes detached and remains dormant at the bottom of the water) was recovered during the survey, but no live plants were observed. During a focused meander survey conducted in May 2022, CLP was observed at 2.7% of sample points on SSSL and it was not found at all on Goggins Lake.

Comparison to Past Point-Intercept Surveys

Point-intercept surveys were conducted at both SSSL and Goggins Lakes in 2014. A comparison of survey results shows a slight improvement in both the number of native species recorded and the overall quality of the aquatic plant community as demonstrated by a slight increase in FQI scores (Table 1 and Table 2). However, Eurasian watermilfoil (EWM) was observed at 44% of sampling locations in SSSL and 12% of sampling locations in Goggins Lake. EWM was not found in either lake during the 2014 survey. A comparison of species detected is provided in Appendix B.

Table 1. South School Section Lake 2014 vs. 2022 P.I. Survey Comparison.

Metric	2014	2022
Total # of Native Plants	9	10
% of Sites with Aquatic Plants	67%	72%
FQI Score	12.9	15.6
Max Depth of Growth (ft)	N/A	17
% of sites w/ EWM	0	44%
Average growing season water level (ft)[1]	964.29	967.88

[1]Based on available water level data from DNR Lakefinder. Datum: NGVD 29 (ft)

Table 2. Goggins Lake 2014 vs. 2022 P.I. Survey Comparison.

Metric	2014	2022
Total # of Native Plants	11	9
% of Sites with Aquatic Plants	39%	75%
FQI Score	13.3	15.5
Max Depth of Growth (ft)	N/A	14
% of sites w/ EWM	0	12.2%
Average growing season water level (ft)[1]	961.70	967.42

[1]Based on available water level data from DNR Lakefinder. Datum: NGVD 29 (ft)

Conclusions and Assessment of Curly-Leaf Pondweed Treatments

The FQI scores from both lakes indicate that the floristic quality of the plant communities increased since last surveys in 2014. The reason for the improvements is not immediately clear and could be due to several factors and their interactions such as water level fluctuations, water quality, aquatic plant management, or simply natural variability. Additionally, though FQI scores improved, the invasive EWM was observed at both SSSL and Goggins for the first time, with relatively high frequency of occurrence (44% of sites) at SSSL.

Water levels at both lakes have fluctuated over this time, with average water levels being deeper in 2022 by just under 3 feet at Goggins and over 6 feet at SSSL compared to 2014 (Table 1 and Table 2). Both lakes exceeded highs of 970 feet in 2019-2021, over 3 feet higher than average levels in 2022. Water level increases could have shifted the littoral zone (area of aquatic plant growth). For example, newly inundated areas represent a new opportunity for aquatic plant growth, while areas with

deeper water become limiting due to less light penetration. A potential mechanism for increased plant abundance and FQI scores driven by water level changes would be when newly inundated areas host unique species while existing vegetation in deeper areas persists at decreased density. Another mechanism driven by fluctuations could be wet-drying cycles that stimulate the aquatic seed bank and provide suitable conditions for germination.

Water quality could also factor into the slightly increased FQI scores. Water clarity is a primary driver of aquatic plant growth and diversity. Based on the 2021 BCWD water monitoring summary, statistically significant improving trends for water quality parameters have been recorded at Goggins Lake, while no statistically significant trends are present for SSSL. Improving water clarity while also increasing water depth could lead to expansion of the littoral zone where newly inundated areas provide new habitat while deeper areas of the lake also become habitat due to increasing clarity. This may have occurred at Goggins, where water clarity has both improved and lake levels have increased since 2014.

Finally, aquatic plant management conducted by BCWD at SSSL and Goggins could have contributed to slightly increased FQI scores. Chemical treatments for CLP were conducted at SSSL in 2017 and 2021 and at Goggins in 2021. In general, CLP does not compete directly with native vegetation and is more limited by environmental factors like good water clarity (that allows native plants to compete), deep winter snow cover (that limits light availability beneath the ice), spring water temperatures, or deeper water levels (that shift the littoral zone toward areas not yet colonized by CLP). That said, management may have limited CLP and reduced establishment in newly inundated areas, creating more open niches for native vegetation and thereby improved FQI scores. At the very least, the improved FQI scores suggest that management has not harmed the native plant community.

EWM was documented at both SSSL and Goggins for the first time, with relatively high frequency of occurrence at SSSL (44% of sites). It is not known when EWM colonized the lakes between 2014 and 2022. High density and frequency of EWM was concentrated along the shoreline in many areas that were likely above the lake elevation in 2014. Higher water levels may have facilitated EWM colonization before native plants (or CLP) could establish in newly inundated areas. Unlike CLP, EWM competes directly with native vegetation and aggressive growth forms mats that shade out competitors (Photograph 1). Continued expansion of EWM could negatively impact FQI scores in the future.

Recommendation: While every lake and lake user is different, most experts agree that CLP treatments, which almost exclusively involve the use of contact herbicides, are not warranted unless CLP occupies 15% or more of the littoral zone due to the potential for damage to non-target species. Intermittent treatments of CLP conducted over the past 5 years have helped to keep CLP below this threshold. The efficacy of these treatments has likely been aided by above average lake levels which likely reduced the area in which CLP could germinate or sprout from turions in deeper areas while expanding the littoral zone into shallower areas where little or no CLP seed/turion bank existed.

EOR recommends spring CLP surveys every three years, which likely will be sufficient to identify problematic CLP growth greater than 15% or more of the littoral zone that warrants treatment. Additionally, research shows that long-term CLP control is best achieved via improvements to water

clarity. Continued watershed or in-lake practices to improve and maintain clarity will likely be the most cost-effective means of CLP management at SSSL and Goggins and should be prioritized as part of a comprehensive AIS management strategy. Improved clarity also supports native vegetation and could increase FQI scores.

Further, given that the quality of the aquatic plant community appears to be at least stable and possibly increasing, EOR is not recommending treatments to target EWM. However, the increase in the abundance of EWM should be monitored via early summer point-intercept aquatic plant surveys conducted every three years (e.g., 2025). If the frequency of EWM continues to increase to the detriment of the native plant community, EOR would likely recommend that BCWD explore herbicide treatments using ProcellaCOR. EOR has had outstanding success with ProcellaCOR treatments on lakes in Wisconsin and Minnesota both in terms of control of the target species (EWM) and avoidance of impacts to the native plant community. Progress towards achieving control of these target species is subject to change based on feedback from lake users and methods of control.

Photograph 1. Surface matting of EWM at SSSL.

Mapping

The distribution for each individual species with a frequency of occurrence ≥ 10% is mapped within Appendix A.

Table 3. South School Section Lake species list and frequency of occurrence.

Common Name	Scientific Name	C-Value	Frequency of Occurrence
Coontail	*Ceratophyllum demersum*	2	63.8%
Muskgrass/stonewort	*Chara* cf. *globularis*	7	0.8%
Needle spikerush	*Eleocharis acicularis*	4	1.5%
Canada waterweed	*Elodea canadensis*	4	35.4%
Northern watermilfoil	*Myriophyllum sibiricum*	7	0.8%
Eurasian watermilfoil	*Myriophyllum spicatum*	0	44.6%
White water lily	*Nymphaea odorata*	6	10.8%
Water smartweed	*Persicaria amphibium*	4	6.2%
Curly-leaf pondweed	*Potamogeton crispus*	0	0.8%
White-stem pondweed	*Potamogeton praelongus*	7	0.8%
Small pondweed	*Potamogeton pusillus*	7	1.5%
Flat-stemmed pondweed	*Potamogeton zosteriformis*	6	1.5%
Summary Table			
FQI = C*√S	**Average C-Value**	4.5	
C= Mean coefficient of conservatism value	**Number of species**	12	
S= Number of species in sample	**FQI**	**15.6**	

Table 4. Goggins Lake species list and frequency of occurrence.

Common Name	Scientific Name	C-Value	Frequency of Occurrence
Coontail	*Ceratophyllum demersum*	2	91.5%
Canada waterweed	*Elodea canadensis*	4	12.2%
Eurasian watermilfoil	*Myriophyllum spicatum*	0	12.2%
Water smartweed	*Persicaria amphibium*	4	4.9%
Curly-leaf pondweed (turion)	*Potamogeton crispus*	0	1.2%
Small pondweed	*Potamogeton pusillus*	7	2.4%
Fern-leaf pondweed	*Potamogeton robbinsii*	8	40.2%
Unknown floating-leaved pondweed	*Potamogeton sp.*	7	1.2%
Flat-stemmed pondweed	*Potamogeton zosteriformis*	6	12.2%
Unknown arrowhead	*Sagittaria* sp.	7	1.2%
River bulrush	*Schoenoplectus fluviatilis*	4	2.4%
Summary Table			
FQI = C*√S	**Average C-Value**	4.9	
C= Mean coefficient of conservatism value	**Number of species**	10	
S= Number of species in sample	**FQI**	**15.5**	

Appendix A

South School Section Lake and Goggins Lake Aquatic Plant Species Distribution

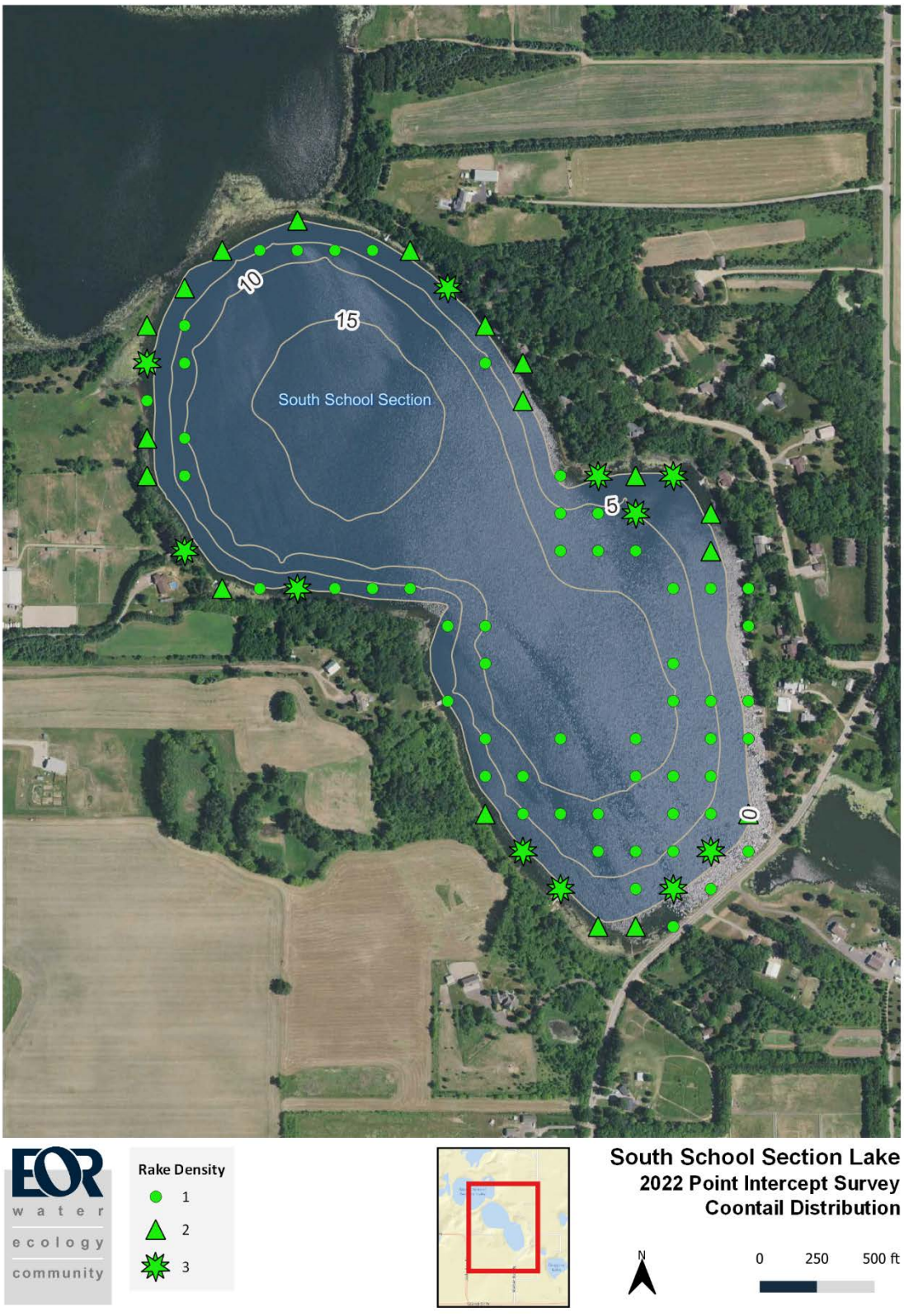


Figure 1. South School Section Lake coontail distribution – August 2022.

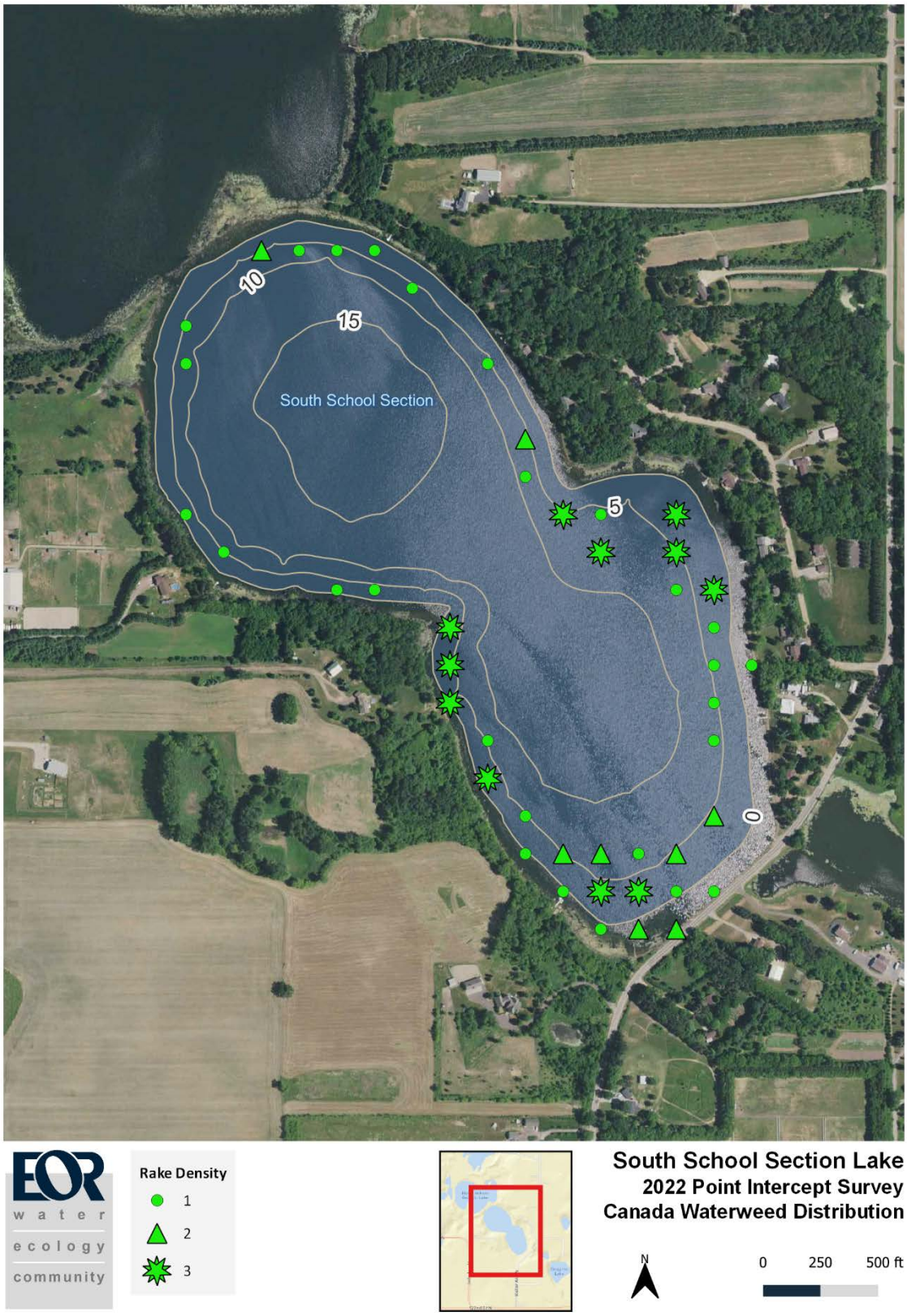


Figure 2. South School Section Lake Canada waterweed distribution– August 2022.

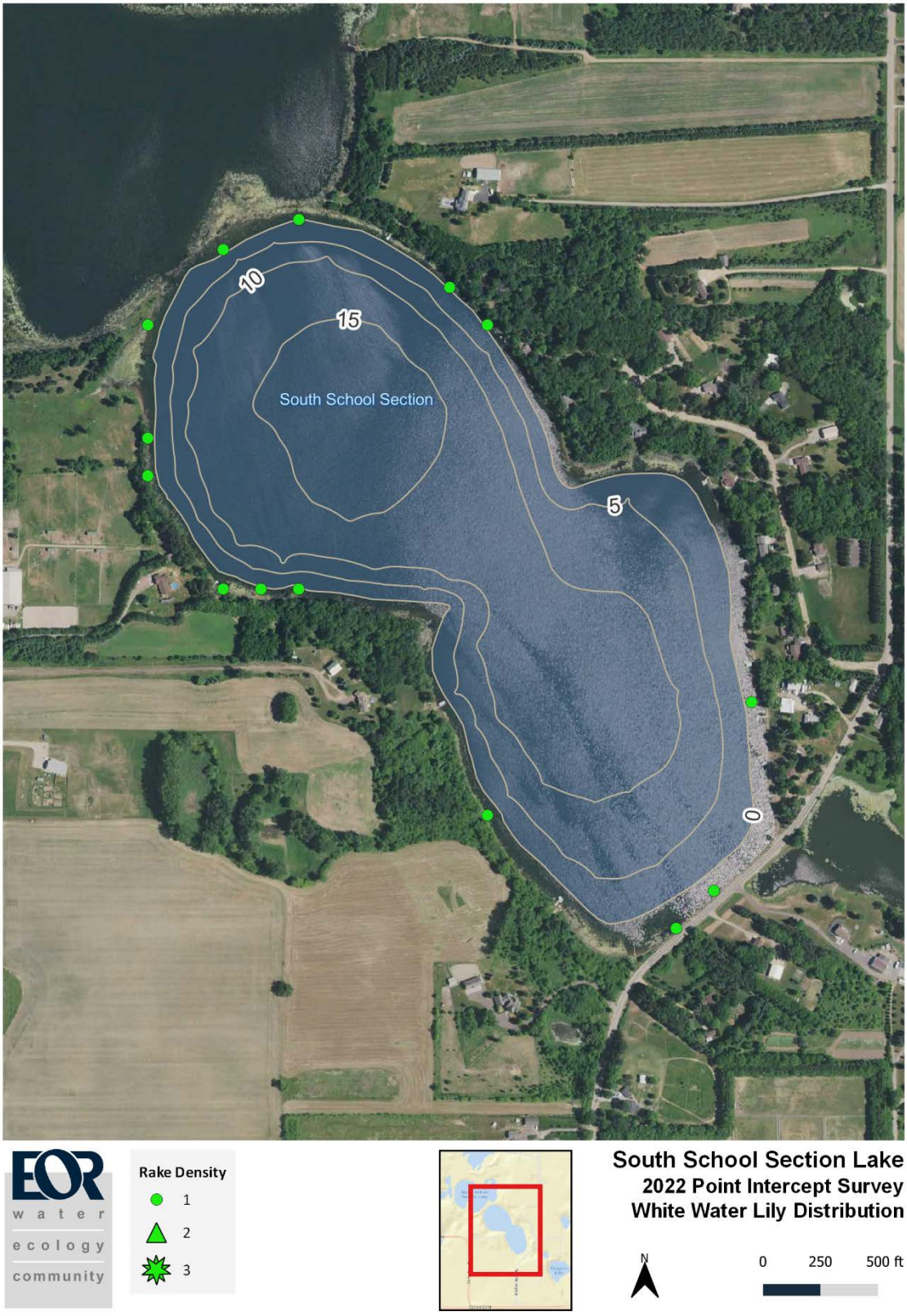


Figure 3. South School Section Lake white water lily distribution – August 2022.

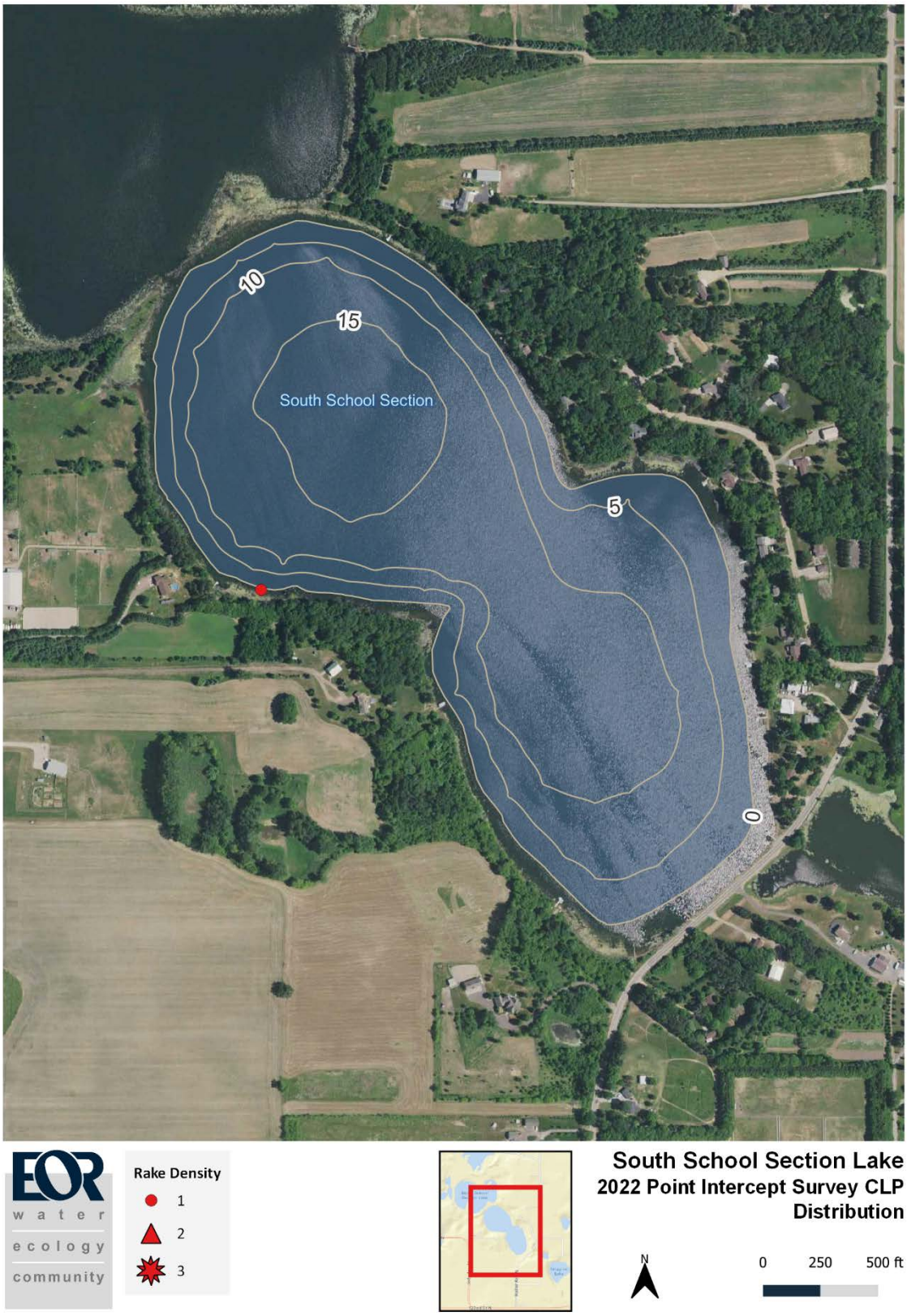


Figure 4. South School Section Lake curly-leaf pondweed distribution – August 2022.

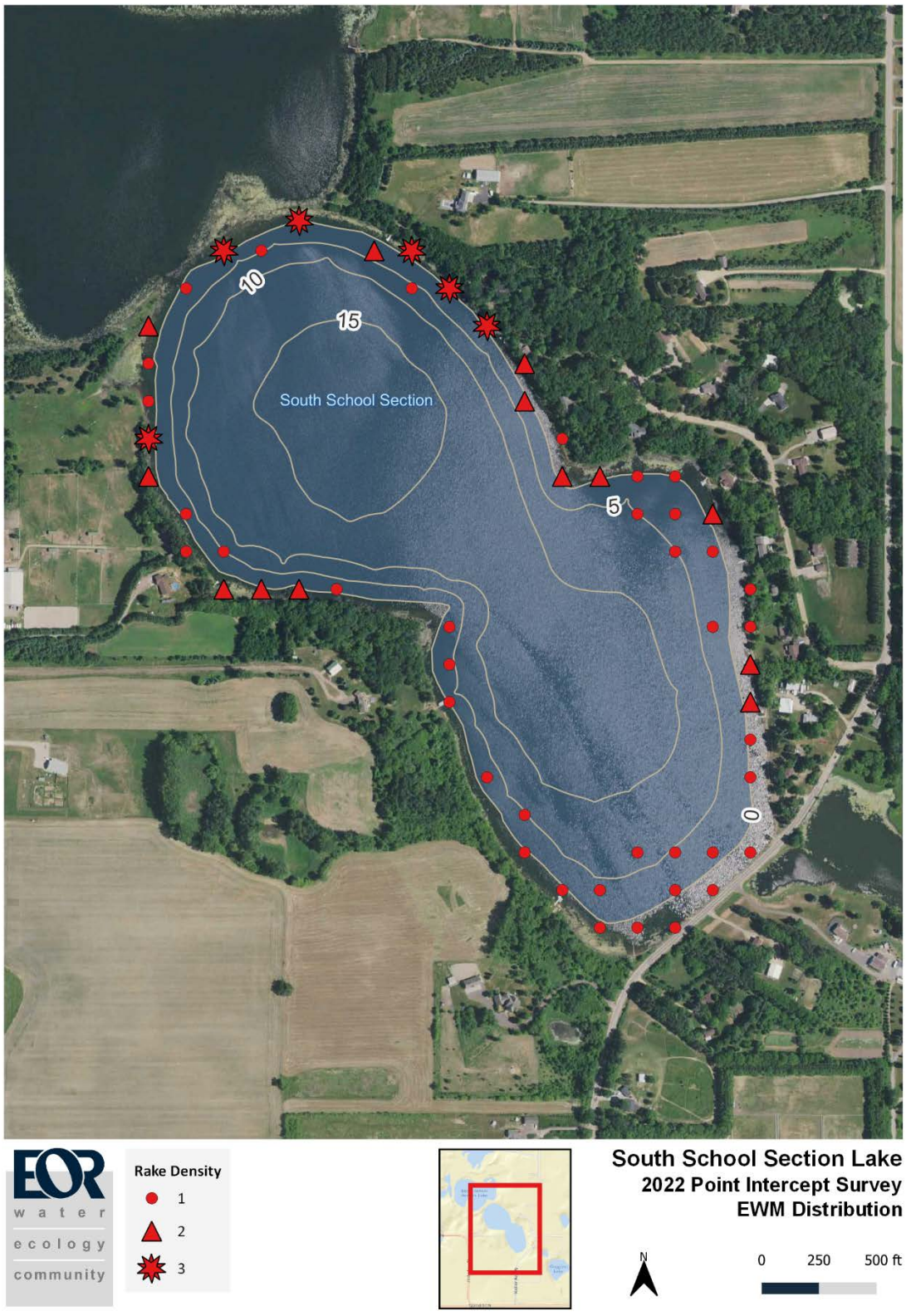


Figure 5. South School Section Lake Eurasian watermilfoil distribution – August 2022.

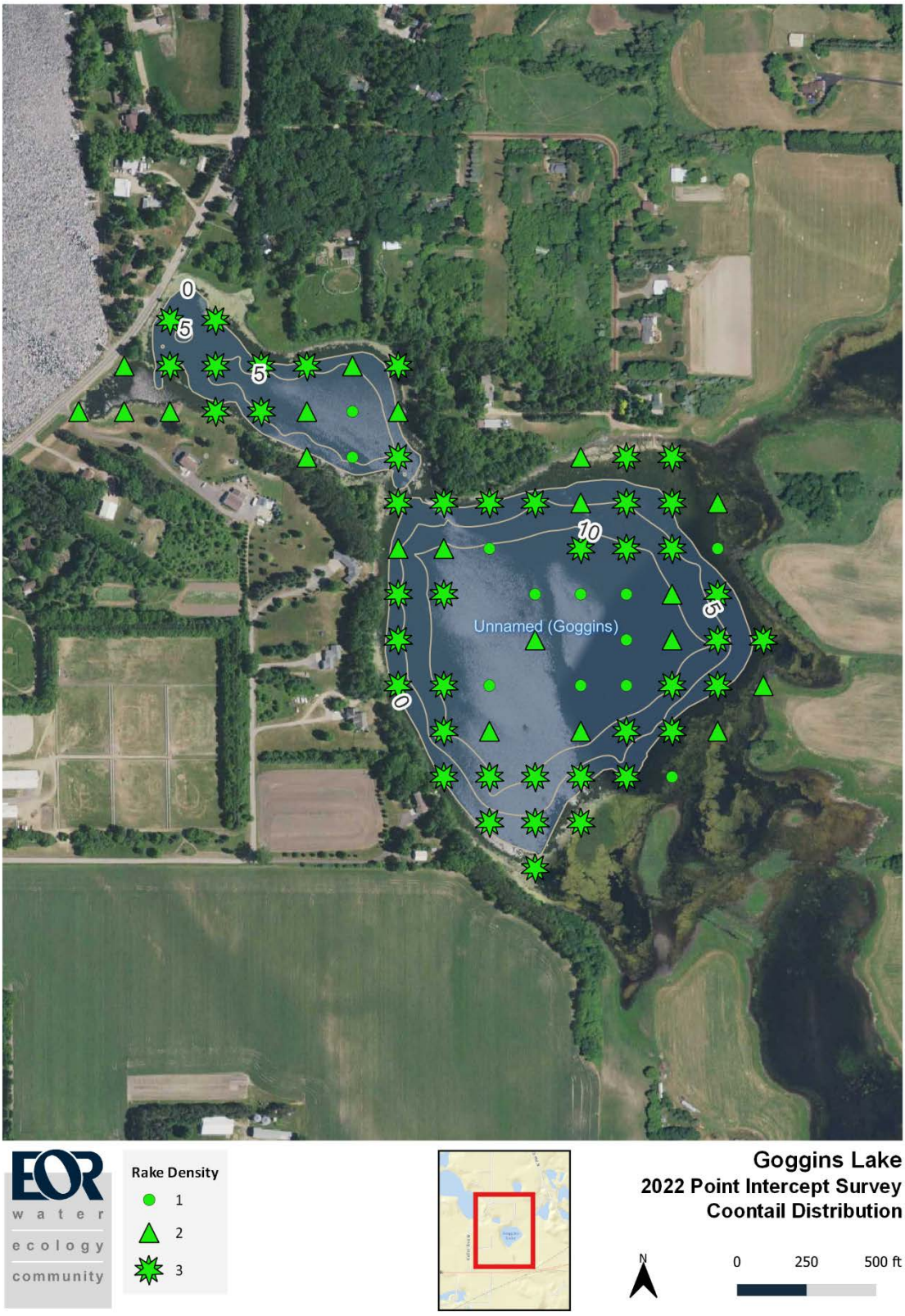


Figure 6. Goggins Lake coontail distribution – August 2022.

Figure 7. Goggins Lake Canada waterweed distribution – August 2022.

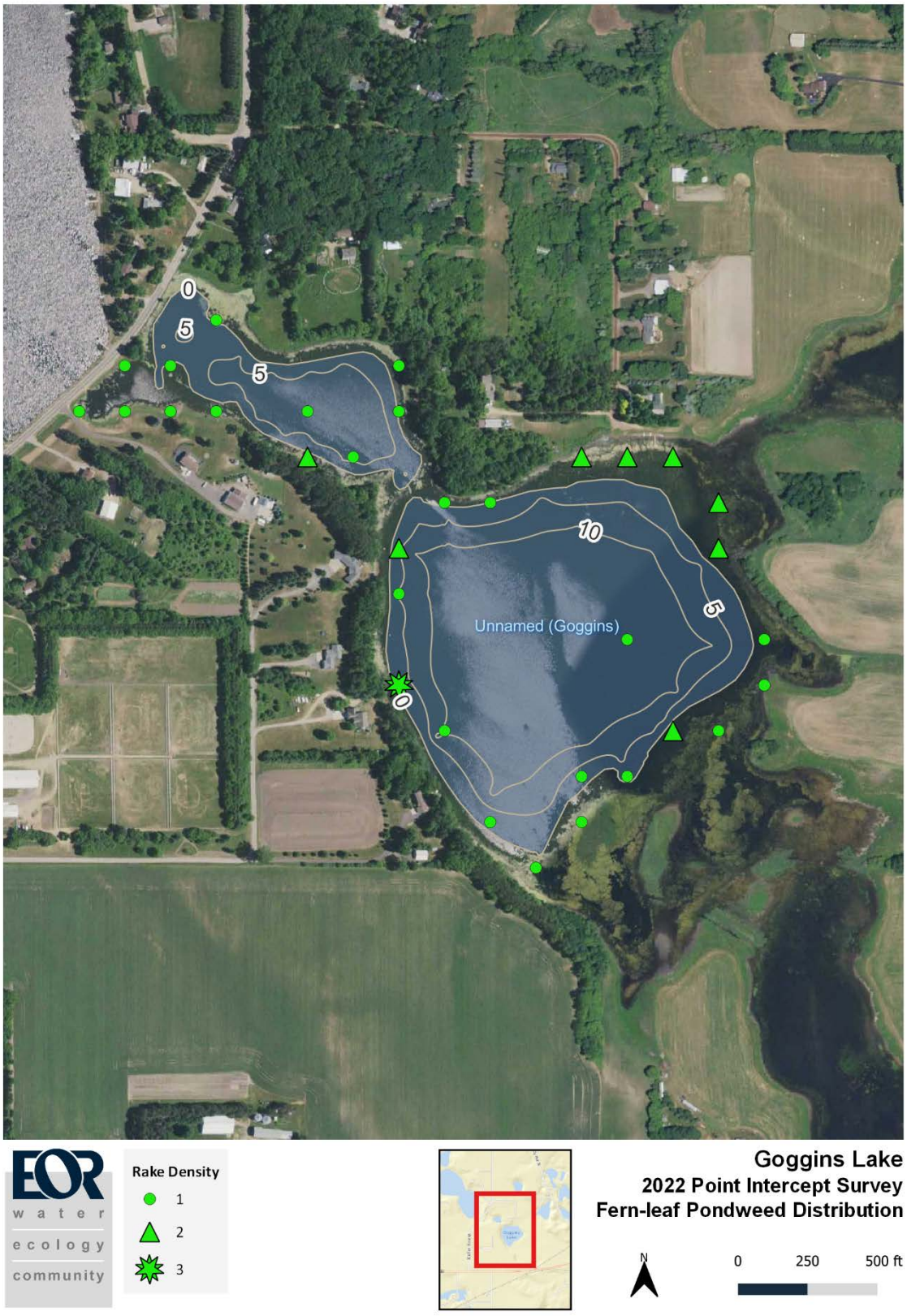


Figure 8. Goggins Lake fern-leaf pondweed distribution – August 2022.

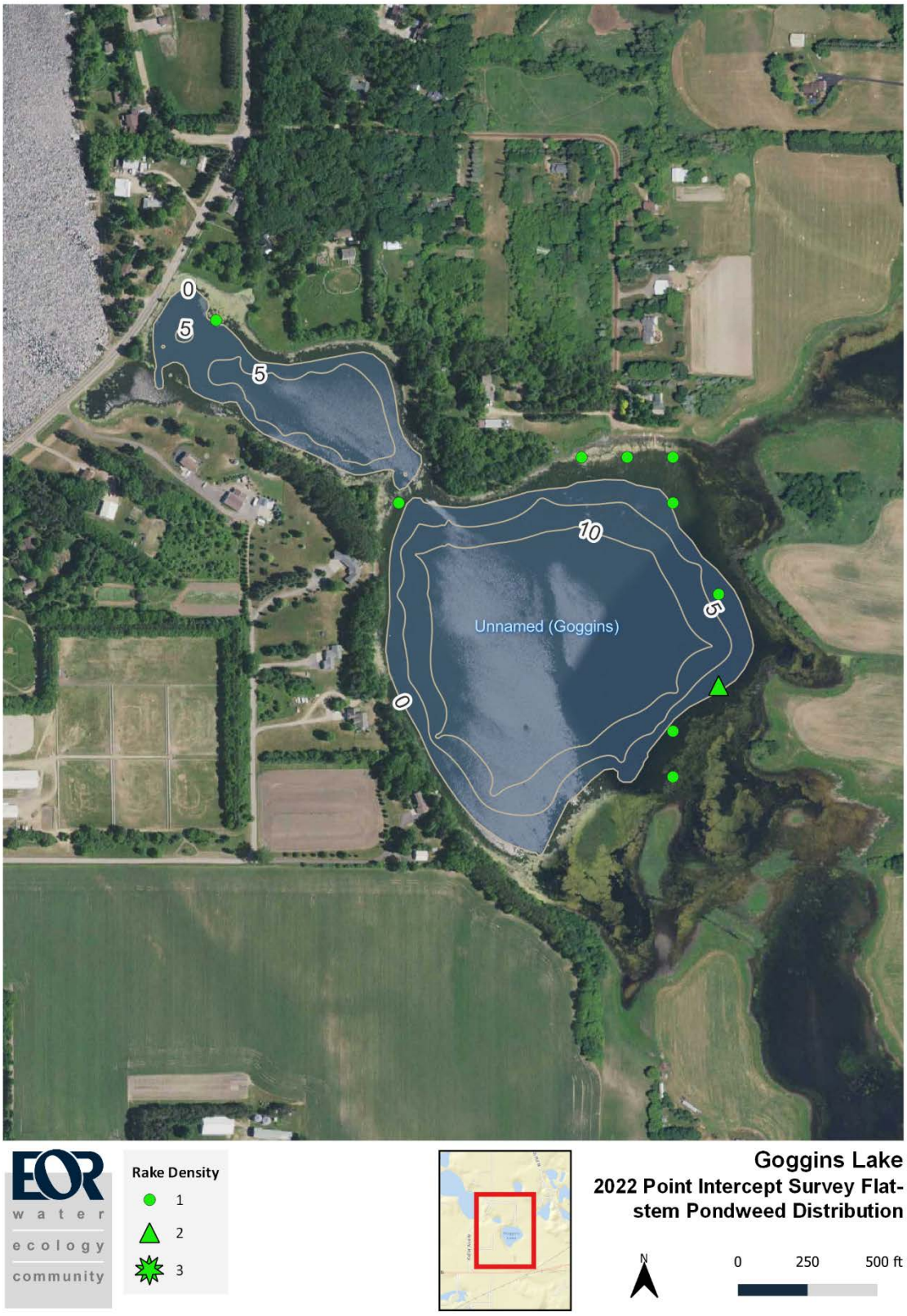


Figure 9. Goggins Lake flat-stem pondweed distribution – August 2022.

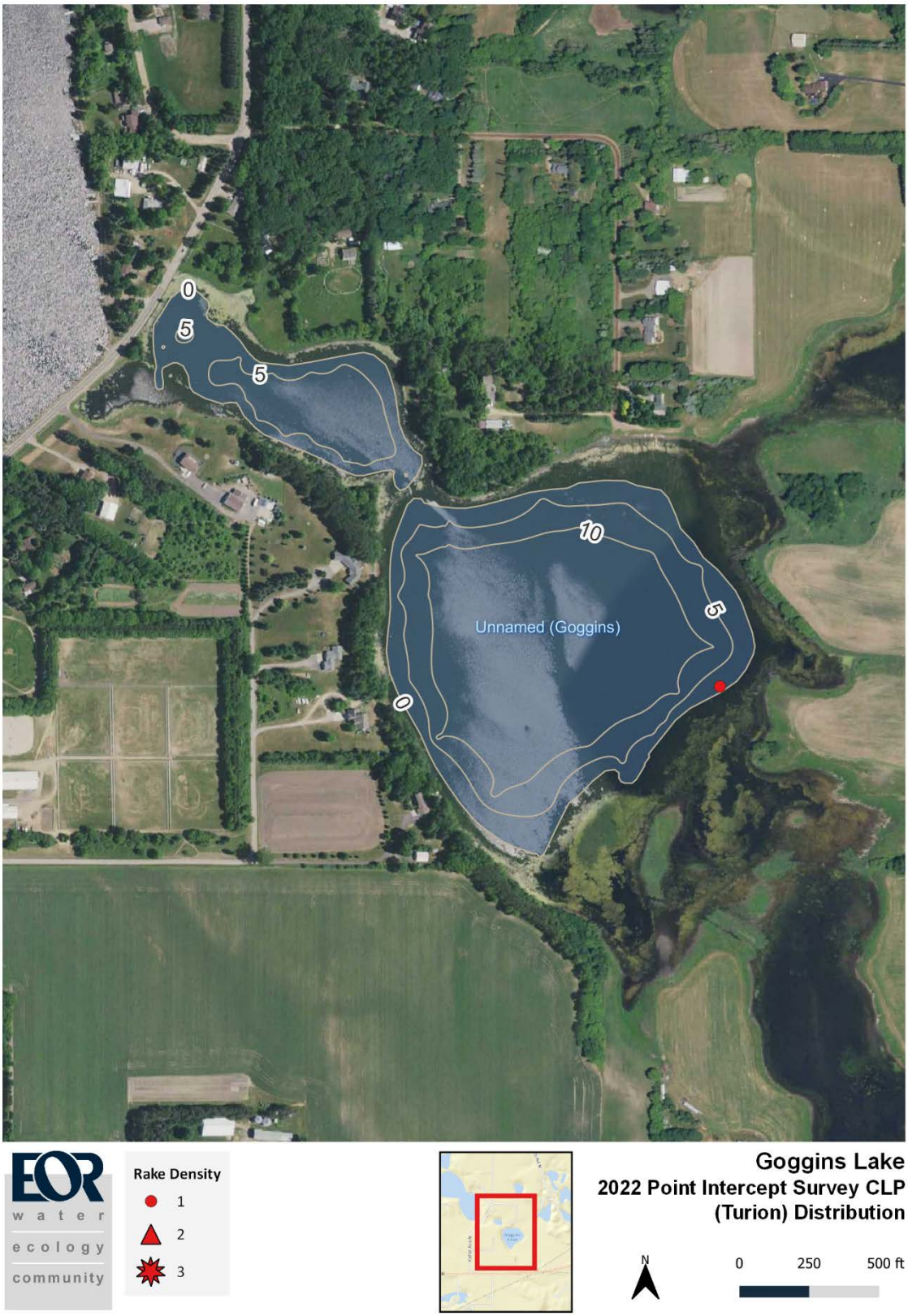


Figure 10. Goggins Lake CLP (turion) distribution – August 2022.

Figure 11. Goggins Lake EWM distribution – August 2022.

Appendix B

Historical Macrophyte Data

Table 5. Historical Aquatic Plant Survey Results

Lake Name		Goggins		South School Section (2014)		South School Section (2017)*	
Scientific Name	Common Name	Avg. Density	% of Sites	Avg. Density	% of Sites	Avg. Density	% of Sites
Elodea canadensis	Canada waterweed	2.4	22%				60%
Brasenia schreberi	Watershield			1	2%		
Ceratophyllum demersum	Coontail	1.4	27%	1.97	41%		45%
Lemna Minor	Lesser Duckweed	1	10%				
Najas guadalupensis	Southern waternymph			1.7	13%		
Nitella spp.	Stonewort (algae)	1	1%	1.3	21%		
Nuphar lutea	Yellow pond lily						
Nymphaea odorata	American white waterlily	1	1%	1.2	3%		
Potamogeton crispus	Curlyleaf pondweed			1.3	55%		48%
Potamogeton foliosus	Leafy pondweed			1.2	3%		
Potamogeton natans	Floating-leaf pondweed	1	1%				
Potamogeton pectinatus	Sago pondweed	1.2	18%	1	4%		
Potamogeton robbinsii	Robbins' pondweed						
Potamogeton spp.	Unidentified pondweed			1	1%		
Potamogeton zosteriformis	Flatstem pondweed	1	1%	1.5	19%		
Typha spp.	Cattail/possible hybrid	1.5	1%	1.2	6%		
Utricularia macrorhiza	Common Bladderwort	1	3%				
Vallisneria americana	Wild celery	1	1%				

* The 2017 survey was conducted early in the growing season with an emphasis on delineating the extent of CLP growth. Many native species had not

memo

Project Name |	Settlers Glen Iron-Enhanced Sand Filter	**Date** |	1/6/2023
To / Contact info |	BCWD Board of Managers		
Cc / Contact info |	Karen Kill, BCWD Administrator		
From / Contact info |	Ryan Fleming, PE		
Regarding |	Pump Harvest Pond Maintenance Contractor Recommendation		

The purpose of this memorandum is to provide a recommendation for selecting a contractor to perform maintenance to return the Settlers Glen iron-enhanced sand filter pump harvest pond to the as-built conditions. The work (excavation and disposal of accumulated sediment) is described in Attachment A: Request for Quote Package.

Quote Summary

Based on direction the Board provided at the 8/10/2022 Board Meeting, the following language was included in the RFQ, *"BCWD encourages participation by minority, women, and veteran-owned businesses as prime contractors, and encourages all prime contractors to make a significant commitment to use minority, women, veteran owned and other disadvantaged business entities as subcontractors and suppliers. If applicable, please list any information regarding how these categories of disadvantaged business entities are included in your submission".*

The request for quote was sent to 89 contractors including 54 from the MN Disadvantaged Business Enterprise Program (DBE) database. The DBE is a program for business owners that are socially and economically disadvantaged. The database is keyword searchable and those that offer services that align with the nature of this work were contacted. The veteran owned business directory was also searched but yielded only two excavation contractors. EOR inquired with a local veteran contractor as well as the Veterans of Foreign Wars organization to find out about more comprehensive directories without success. We will continue to seek other avenues to locate veteran owned contractors in the future.

The request for quote package was distributed to contractors on 12/19/2022; seven contractors submitted quotes as summarized in Table 1.

Table 1. Summary of Quotes

COMPANY	DBE/Veteran Owned Response	TOTAL QUOTE
Dimke Excavating, Inc.	Does not apply to quoted work	$39,471.25
New Look Contracting, Inc.	Willing to consider WBE or MBE trucking if selected	$44,521.00
Rachel Contracting, LLC	Likely that selected trucking firm used is DBE listed	$46,884.10
Rock Leaf Water Environmental, LLC*	Woman-owned business	$49,317.50
Peterson Companies, Inc.	Does not apply to quoted work	$54,895.00
US SiteWork	Certified Small Business	$67,643.00
Shoreline Landscaping	Unknown, no response	$88,258.00
Engineer's Estimate**		$32,000.00

*Rock Leaf Water Environmental was selected for a 2-year contract to conduct underground infrastructure maintenance in the BCWD.

**Engineer's estimate was drafted prior to knowledge of arsenic and PAH concentrations above Soil Reference Values.

Recommendation

EOR recommends the Board consider award of the contract based on the quoted values and the DBE/Veteran owned status shown in Table 1.

Board Action

1. Award the contract for the Settlers Glen Pump Harvest Pond Maintenance at a value of $__,_____ from Account: 948-0000 and approval of the Administrator to enter into contract upon advice of Legal Counsel.

memo

Project Name |	Settlers Glen Pump Harvest Pond	**Date** |	12/19/2022
To / Contact info |	Prospective Contractor		
Cc / Contact info |	Karen Kill, BCWD Administrator		
From / Contact info |	Ryan Fleming, PE		
Regarding |	Pond Maintenance (Dredging)		

Request:

Brown's Creek Watershed District (BCWD) is soliciting competitive quotes for dredging of an existing pump harvest & sediment settling pond located in the Settlers Glen Neighborhood in the City of Stillwater, MN. (Emmons & Olivier Resources is the BCWD engineer.)

The project is generally located near Morgan Avenue North, north of Boutwell Road North and west Neal Avenue North as shown in Figure 1. Work will take place on property owned by the City of Stillwater. Access is established within a cooperative agreement between the BCWD and city of Stillwater, attached hereto as Attachment 1. Laboratory analysis was conducted on sediment samples from the pond collected on November 2, 2022. A laboratory report is included in Attachment 2.

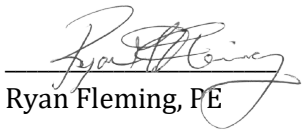
BCWD encourages participation by minority, women, and veteran-owned businesses as prime contractors, and encourages all prime contractors to make a significant commitment to use minority, women, veteran owned and other disadvantaged business entities as subcontractors and suppliers. If applicable, please list any information regarding how these categories apply in your submission.

Quotes must be submitted by email or hand-delivery to Emmons & Olivier Resources at the address below by 5:00 PM January 5, 2023. It is anticipated a contract for the work will be authorized at the BCWD Board meeting on January 11, 2023. The work must be completed by April 30, 2023. The form of the contract to be entered by the selected contractor and the Brown's Creek Watershed District is attached. Respondents must prepare a quote based upon the requirements of the proposed contract and attached site plans, designs and technical specifications. Respondents must furnish a LUMP SUM quote to procure & furnish materials to: mobilize, install erosion & sediment control devices, dewater the pond as necessary to carry out sediment removal, remove sediment in the pond to the specified elevation, dispose of sediment, restore all disturbed areas, and perform all associated work in accordance with the site plans and designs and technical specifications attached as Exhibit A to the form of contract attached hereto. To be selected for the work, a respondent must have prior experience conducting cleanout of stormwater-management facilities and disposing of sediment removed. The lump sum amount provided in response to this request must represent full payment for all costs associated with removal and disposal of all material, debris, and liquids located in the pond, including, but not limited to, materials, labor, permits, insurance, traffic control, disposal fees, flow diversion, dewatering, erosion & sediment control, and the required site restoration. The contractor will procure all licenses, permits and other rights and approvals required for the work including but not limited to city grading and right-of-way permitting. BCWD will obtain approval for the work under the Department of Natural Resources Work in Waters program, and related to the Wetland Conservation Act and the US Army Corps of Engineers.

Unless a party receiving this RFQ package contacts the individual listed below and requests otherwise, the party's name and contact information (only) may be distributed to other interested parties.

If you have any questions regarding this RFQ, please contact Ryan Fleming, PE at 651.203.6034 or rfleming@eorinc.com.

I hereby certify that this request for quotations was prepared by me or under my direct supervision and that I am a duly registered certified engineer under the laws of the State of Minnesota.



Ryan Fleming, PE

Reg. no. 46211

FIGURE 1:

BCWD Pond Maintenance

Settlers Glen Harvest Pond Dredging
Morgan Avenue North, Stillwater, MN

Agreement between
Brown's Creek Watershed District and

_____

Settlers Glen Pump Harvest Pond Dredging

This contract is entered into by the Brown's Creek Watershed District, a public body with powers set forth in Minnesota Statutes chapters 103B and 103D (BCWD), and _____, a private corporation (CONTRACTOR). In consideration of the terms and conditions set forth herein, including mutual consideration, the sufficiency of which is hereby acknowledged, BCWD and CONTRACTOR agree as follows:

1. Scope of Work

CONTRACTOR will procure & furnish materials to: mobilize, install erosion & sediment control devices, dewater the pond as necessary to carry out sediment removal, remove sediment in the pond to the specified elevation, dispose of sediment in accordance with all applicable regulatory requirements, restore all disturbed areas, and perform all associated work in accordance with the site plans and designs and technical specifications attached hereto as Exhibit A (hereinafter, the Work) and the Contract Documents listed below. The Work will be completed in accordance with the Contract Documents, which consist of the following:

Change orders;

Notice to proceed;

This contract;

Addendums;

CONTRACTOR's complete quote form (Exhibit B); and

Exhibit A – Plans and Designs, and the technical specifications titled "Settlers Glen Pump Harvest Pond Dredging" (6 sheets, October 30, 2022); Division II and Division III sections of the 2020 MnDOT Specifications Manual.

In the event of apparent conflict between terms in Contract Documents, interpretive priority will be given to the first-listed document above. Exhibit A is incorporated into this contract and its terms, conditions and schedules are binding on CONTRACTOR as a term hereof. CONTRACTOR will furnish all materials, machinery, equipment, tools, labor and expertise needed to complete the Work. BCWD, at its discretion, in writing may at any time suspend work or amend the contract to delete any task or portion thereof. Authorized work by CONTRACTOR

on a task deleted or modified by BCWD will be compensated in accordance with the terms of this contract generally and paragraph 5 specifically.

2. Independent Contractor

CONTRACTOR is an independent contractor. CONTRACTOR will select the means, method and manner of performing the Work. Nothing herein constitutes CONTRACTOR as the agent, representative or employee of BCWD in any respect. Personnel performing the Work on behalf of CONTRACTOR will not be considered employees of BCWD and will not be entitled to any compensation, rights or benefits of any kind from BCWD.

3. Subcontract and Assignment

CONTRACTOR may not assign, subcontract or transfer any obligation or interest in this contract or any of the Work without the written consent of BCWD and pursuant to any conditions included in that consent. BCWD consent to any subcontracting does not relieve CONTRACTOR of its responsibility to BCWD to perform the Work or any part thereof, nor in any respect affect its warranty, insurance, indemnification, duty to defend or agreement to hold harmless with respect to the Work.

4. Warranty and Indemnification

CONTRACTOR will perform the Work with due care in a proper, workmanlike and good quality manner, and warrants that all materials and labor will be in strict conformity in every respect with the Contract Documents. CONTRACTOR warrants the completed Work, including all site stabilization measures and vegetation, for one year from the date the BCWD determines the Work to be complete. CONTRACTOR warrants that it has examined the site to the extent necessary to agree to the price of the Work and accepts any increased cost resulting from changes to the Work in response to foreseeable site conditions.

CONTRACTOR will defend, indemnify and hold harmless BCWD, its officers, board members, employees and agents from: (a) CONTRACTOR's negligent or otherwise wrongful act or omission, or breach of a specific contractual duty; or (b) a subcontractor's negligent or otherwise wrongful act or omission, or breach of a specific contractual duty owed by CONTRACTOR to BCWD. For any claim subject to indemnification under this paragraph by an employee of CONSULTANT or a subcontractor, the indemnification obligation is not limited by a limitation on the amount or type of damages, compensation or benefits payable by or for CONSULTANT or a subcontractor under workers' compensation acts, disability acts or other employee benefit acts.

BCWD will indemnify, defend and hold harmless CONTRACTOR, its officers, employees and agents, from any and all actions, costs, damages and liabilities of any nature to the degree they are the result of any action or inaction by BCWD that is the basis for BCWD's liability in law or equity.

5. Compensation

BCWD will compensate the CONTRACTOR on a progress-payments basis for completed work and will reimburse direct costs in accordance with Exhibit B. Invoices will be submitted monthly for work performed during the preceding month. BCWD will pay for undisputed work within 35 days of receipt of invoice. Direct costs not specified in Exhibit B will not be reimbursed except with prior written approval of BCWD administrator. In accordance with Minnesota Statutes section 471.425, subdivision 4a, CONTRACTOR will pay any subcontractor within 10 days of CONTRACTOR's receipt of payment from BCWD for undisputed services provided by the subcontractor. CONTRACTOR will pay interest of 1½ percent per month or any part of a month to a subcontractor on any undisputed amount not paid on time to the subcontractor. The minimum monthly interest penalty payment for an unpaid balance of $100 or more is $10. For an unpaid balance of less than $100, CONTRACTOR will pay the actual penalty due to the subcontractor.

Total compensation due under this contract will not exceed $_____. "Total compensation" means all sums to be paid whatsoever, including but not limited to mobilization, incidental, administrative and overhead costs, subcontract costs and reimbursement of direct costs, whether specified in this contract or subsequently authorized by BCWD administrator.

BCWD will not make final payment until CONTRACTOR has provided proof of compliance with state income tax withholding requirements pursuant to Minnesota Statutes section 270C.66.

CONTRACTOR will maintain all records pertaining to fees or costs incurred in connection with the Work for six years from the date of completion of the Work. Any authorized BCWD representative or representative of the Minnesota State Auditor will have access to and the right to examine, audit or copy any such records during normal business hours.

6. Compliance with Laws; Site Control

CONTRACTOR will comply with the laws and requirements of all federal, state, local and other governmental units in connection with performing the Work, including but not limited to Minnesota Pollution Control Agency permitting and approval requirements for disposition of sediment from stormwater sediment

removal requirements (*see* https://www.pca.state.mn.us/water/wastewater-dredged-materials-management#projects). CONTRACTOR will procure all licenses, permits and other rights and approvals required for the Work, except that BCWD has procured the rights necessary to access the site for purposes of the maintenance via the route and to work within the limits shown in Exhibit A, and except that BCWD will secure approval of the Work under the state Department of Natural Resources work in waters program. CONTRACTOR will not access the site of the Work via a route different from that shown on or exceed the work-area limits shown on Exhibit A. CONTRACTOR will comply with all local requirements as to traffic, staging, site ingress and egress, work hours and site maintenance.

CONTRACTOR is responsible for site conditions relating to worker and public safety, cleanliness and environmental protection and in all other respects. CONTRACTOR will report to Gopher State One Call before any excavation in accordance with Minnesota Statutes chapter 216 as may be applicable to the Work and is responsible to identify and protect all structures and utilities, whether above or below ground, and for any damage or injury resulting from the failure to do so. CONTRACTOR will not injure or destroy any shrub or tree on site except as agreed to by BCWD in writing.

In its performance of the Work, CONTRACTOR will ensure that no person is excluded from full employment rights or participation in or the benefits of any program, service or activity on the ground of race, color, creed, religion, age, sex, disability, marital status, sexual orientation, public assistance status or national origin; and no person who is protected by applicable federal or state laws, rules or regulations against discrimination otherwise will be subjected to discrimination.

7. Termination; Continuation of Obligations

This contract is in force when fully executed by the parties and will remain in force until **August 1, 2023**, unless earlier terminated as set forth herein. BCWD may suspend or terminate this contract with or without cause by a written termination notice stating specifically what prior authorized or additional tasks it requires CONTRACTOR to complete. If the contract is suspended or terminated for convenience, CONTRACTOR will be compensated for all authorized work completed, including reasonable costs for actions directed by BCWD to stabilize the site of the Work. If suspension or termination is for cause, CONTRACTOR will stabilize all disturbed work sites before vacating, without extra compensation. CONTRACTOR will be given a reasonable opportunity to cure before termination for cause.

It is understood and agreed that insurance obligations; warranties and obligations to defend, indemnify and hold harmless; and document-retention requirements survive the completion of the Work and the term of this contract.

8. Waiver

BCWD's failure to insist on CONTRACTOR's strict performance of any obligation, condition or provision of this contract, or to exercise any option, remedy or right herein, will not waive its rights in the future to do so. The waiver of either party on one or more occasion of any provision or obligation of this contract will not be construed as a waiver of any subsequent breach of the same provision or obligation, and the consent or approval by either party to or of any act by the other requiring consent or approval will not render unnecessary such party's consent or approval to any subsequent similar act by the other.

Notwithstanding any other term herein, the contract creates no rights in any third party, and BCWD waives no tort defense, immunity or liability limit with respect to CONTRACTOR or any third party.

9. Insurance

At all times during the term of this contract, CONTRACTOR will have and keep in force the following insurance coverages:

A. General liability: $1.5 million each occurrence and aggregate, covering completed operations and contractual liability on an occurrence basis.

B. Automobile liability: combined single limit each occurrence coverage for bodily injury and property damage covering all vehicles on an occurrence basis, $1.5 million.

C. Workers' compensation: in accordance with legal requirements applicable to CONTRACTOR.

CONTRACTOR will not commence work until it has filed with BCWD a certificate of insurance clearly evidencing the required coverage and naming BCWD as an additional insured with primary coverage for general liability on a noncontributory basis, along with a copy of the additional-insured endorsement. The certificate will name BCWD as a holder and will state that BCWD will receive written notice before cancellation, nonrenewal or a change in the limit of any described policy under the same terms as CONTRACTOR.

10. Records

All documents and information obtained or generated by CONTRACTOR or a subcontractor in performing the Work, including hard and electronic copy, software, and in any other forms in which the materials are contained, documented or memorialized, are the property of BCWD.

BCWD may immediately inspect, copy or take possession of any such materials on written request to CONTRACTOR. CONTRACTOR may maintain a copy of any such materials at its expense.

Any document or information supplied to CONTRACTOR by BCWD or deriving from BCWD is given and accepted without representation or warranty including but not limited to a warranty of fitness, merchantability, accuracy or completeness. Absent BCWD written approval, CONTRACTOR will not use any such document or information other than for performance of the Work. CONTRACTOR will not disclose to any third party proprietary material so denominated by BCWD.

11. Data Practices; Confidentiality

If CONTRACTOR receives a request for data pursuant to the Data Practices Act, Minnesota Statutes chapter 13 (DPA), that may encompass data (as that term is defined in the DPA) CONTRACTOR possesses or has created as a result of this contract, CONTRACTOR will inform BCWD immediately and transmit a copy of the request. If the request is addressed to BCWD, CONTRACTOR will not provide any information or documents, but will direct the inquiry to BCWD. If the request is addressed to CONTRACTOR, CONTRACTOR will be responsible to determine whether it is legally required to respond to the request and otherwise what its legal obligations are, but will notify and consult with BCWD and its legal counsel before replying. Nothing in the preceding sentence supersedes CONTRACTOR's obligations under this contract with respect to protection of BCWD data, property rights in data or confidentiality. Nothing in this section constitutes a determination that CONTRACTOR is performing a governmental function within the meaning of Minnesota Statutes section 13.05, subdivision 11, or otherwise expands the applicability of the DPA beyond its scope under governing law.

CONTRACTOR agrees that it will not disclose and will hold in confidence any and all proprietary materials owned or possessed by BCWD and so denominated by BCWD. CONTRACTOR will not use any such materials for any purpose other than performance of the Work without BCWD written consent. This restriction does not apply to materials already possessed by CONTRACTOR or that CONTRACTOR received on a non-confidential basis from BCWD or another party.

12. BCWD Property

All property furnished to or for the use of CONTRACTOR or a subcontractor by BCWD and not fully used in the performance of the Work, including but not limited to equipment, supplies, materials and data, both hard copy and electronic, will remain the property of BCWD and returned to BCWD at the conclusion of the performance of the Work, or sooner if requested by BCWD. CONTRACTOR further agrees that any proprietary materials are the exclusive property of BCWD and will assert no right, title or interest in the materials. CONTRACTOR will not disseminate, transfer or dispose of any proprietary materials to any other person or entity unless specifically authorized in writing by BCWD. Any property including but not limited to materials supplied to CONTRACTOR by BCWD or deriving from BCWD is supplied to and accepted by CONTRACTOR as without representation or warranty including but not limited to a warranty of fitness, merchantability, accuracy or completeness. However, CONTRACTOR's warranty under paragraph 4, above, does not extend to materials provided to CONTRACTOR by BCWD or any portion of the Work that is inaccurate or incomplete as the result of CONTRACTOR's reliance on those materials.

13. Notices

Any written communication to BCWD required under this contract will be directed to:

Karen Kill
455 Hayward Avenue North
Oakdale, Minnesota 55128
651-330-8220 x26

Written communication to CONTRACTOR:

Owner Name:
Company Name:
Street Address:
City: State: Zip:
Phone Number:

14. Choice of Law, Venue and Jurisdiction

This contract will be construed under and governed by the laws of the State of Minnesota.

15. Completion of Work

The Work must be certified by the CONTRACTOR as substantially complete for the purposes intended on or before April 30, 2023, and all complete and ready for final payment by June 1, 2023.

16. Whole Contract

The entire contract between the parties is contained herein and this contract supersedes all oral contracts and negotiations relating to the subject matter hereof. BCWD may amend this contract by means of a proper work change directive clearly denominated as such. Any other amendment must be signed by both parties.

IN WITNESS WHEREOF, intending to be legally bound, the parties hereto execute and deliver this contract.

[CONTRACTOR]

_____ Date: _____

By _____

Its_____

BROWN'S CREEK
WATERSHED DISTRICT

_____ Date: _____

By Karen Kill

Its administrator

Approved as to form and execution

_____

Counsel, Brown's Creek Watershed District

EXHIBIT A
Site Plans, Design and Specifications

EXHIBIT B
Contractor's Completed Quote Form

EXHIBIT A

BROWN'S CREEK WATERSHED DISTRICT

SETTLERS GLEN PUMP HARVEST POND DREDGING

WASHINGTON, MINNESOTA

Sheet List Table	
Sheet Number	Sheet Title
01	TITLE SHEET
02	SEQ & NOTES
03	EXISTING CONDITIONS
04	PROPOSED GRADING
05	EROSION CONTROL & RESTORATION
06	DETAIL SHEETS

* THIS PLAN SET CONTAINS 06 PLAN SHEETS

GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING FIELD MANUAL FOR TEMPORARY CONTROL ZONE LAYOUTS.

EXISTING UTILITIES

THE LOCATION OF UNDERGROUND FACILITIES AND/OR STRUCTURES AS SHOWN ON THE PLANS ARE BASED ON AVAILABLE RECORD AT THE TIME THE PLANS WERE PREPARED AND ARE NOT GUARANTEED TO BE COMPLETE OR CORRECT. THE SUBSURFACE UTILITY INFORMATION SHOWN IS UTILITY QUALITY LEVEL D, AS DETERMINED USING THE GUIDELINES OF "CI/ASCE 38-02 STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA." THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITIES 72 HOURS PRIOR TO CONSTRUCTION TO DETERMINE THE EXACT LOCATION OF ALL FACILITIES AND TO PROVIDE ADEQUATE PROTECTION OF SAID UTILITIES DURING THE COURSE OF WORK.

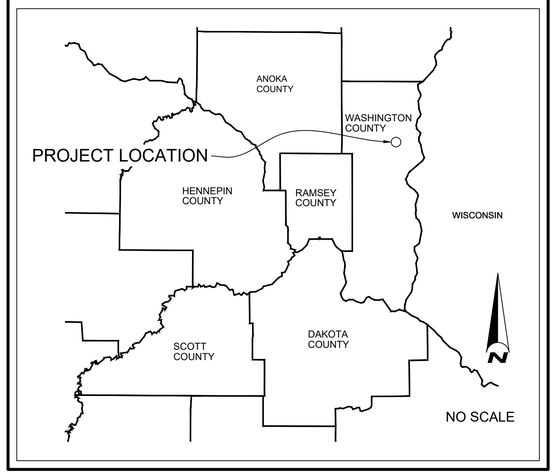
CONSTRUCTION NOTE

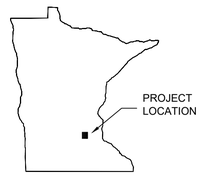
CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO MAINTAIN OPERATION OF EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT. IN THE EVENT THAT AN INTERRUPTION OF SERVICE IS UNAVOIDABLE IN ORDER TO COMPLETE THE WORK, CONTRACTOR SHALL PROVIDE ADEQUATE NOTIFICATION TO ALL AFFECTED BUSINESSES A MINIMUM OF 3 WORKING DAYS IN ADVANCE OF ANY INTERRUPTION.

GOPHER STATE ONE-CALL

IT IS THE LAW THAT ANYONE EXCAVATING AT ANY SITE MUST NOTIFY GOPHER STATE ONE CALL (GSOC) SO THAT UNDERGROUND ELECTRIC, NATURAL GAS, TELEPHONE OR OTHER UTILITY LINES CAN BE MARKED ON OR NEAR YOUR PROPERTY BEFORE ANY DIGGING BEGINS. A 48-HOUR NOTICE, NOT INCLUDING WEEKENDS, IS REQUIRED. CALLS CAN BE MADE TO GSOC AT 1-800-252-1166 OR (651)454-0002, MONDAY THROUGH FRIDAY (EXCEPT HOLIDAYS) FROM 7 A.M. TO 5 P.M.

LOCATION MAP





811

CLIENT

BROWN'S CREEK WATERSHED DISTRICT
455 HAYWARD AVE N
OAKDALE, MN 55128

ENGINEER

EMMONS & OLIVIER RESOURCES, INC.
1919 UNIVERSITY AVE W SUITE 300
ST PAUL, MINNESOTA 55104
TELEPHONE: (651) 770-8448
FAX: (651) 770-2552
EORINC.COM

NO	DATE	BY	REVISION
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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

RYAN FLEMING
DATE: 10-30-2022 LICENSE # 46211

SUBMISSION DATE: 10-30-2022

DESIGN BY RF | DRAWN BY BR

EOR PROJECT NO. 00041-0339

Emmons & Olivier Resources, Inc.
1919 UNIV. AVE W #300
ST. PAUL, MN 55104
TELE: 651.770.8448
www.eor.com

BROWN'S CREEK WATERSHED DISTRICT
455 HAYWARD AVE N
OAKDALE, MN 55128

SETTLERS GLEN PUMP HARVEST POND DREDGING
STILLWATER, WASHINGTON, MINNESOTA

STATE PROJECT NO. --- | CITY PROJECT NO. ---

TITLE SHEET

SHEET 01 OF 06 SHEETS

Plot Date: 11/18/2022
Drawing name: X:\clients_wd\041_BCWD\0408_iesf_om_2022\09_GMS\dwg\CD-DRAWING.dwg
Xrefs: PARCELS2, X-BASE2, X-TR2, P-Base2, RMF_SIGNATURE

EXHIBIT A

Item	MnDOT Reference #	Unit	Estimate
Mobilization	2021.501	LS	1.00
Muck Excavation (EV) (Including Disposal)	2105.507	CY	215.00
Stabilized Construction Exit (Install, Maintain & Removal)	2573.501	LS	1.00
Storm Drain Inlet Protection (Install, Maintain & Removal)	2573.501	LS	1.00
Sediment Control Log (Install, Maintain & Removal)	2573.503	LF	390.00
Sediment Filter log	2573.503	EA	1.00
Turf Establishment	2575.501	LS	1.00

GRADING & EROSION CONTROL NOTES

1. CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL (1-800-252-1166 OR 651-454-0002) BY AT LEAST TWO (2) BUSINESS DAYS PRIOR TO EXCAVATION/ CONSTRUCTION, FOR UTILITY LOCATIONS.
2. CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO START OF SITE GRADING. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES OR VARIATIONS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HORIZONTAL AND VERTICAL CONTROL.
4. INSTALL EROSION CONTROL AND TREE PROTECTION MEASURES BEFORE BEGINNING SITE GRADING ACTIVITIES. MAINTAIN EROSION CONTROLS THROUGHOUT THE GRADING PROCESS AND REMOVE UPON APPROVAL BY PROJECT ENGINEER.
5. ALL EXPOSED SOIL AREAS WITHIN 100 FEET OF A WATER OF THE STATE OR ANY STORMWATER CONVEYANCE SYSTEM WHICH IS CONNECTED TO A WATER OF THE STATE MUST BE STABILIZED WITHIN 24 HOURS.
6. SEE PROPOSED GRADING, DRAINAGE, AND EROSION CONTROL PLAN FOR ADDITIONAL REQUIREMENTS.
7. ALL CONSTRUCTION ENTRANCES SHALL BE SURFACED WITH CRUSHED ROCK ACROSS FULL WIDTH FROM ENTRANCE POINT TO 50 FEET INTO THE CONSTRUCTION ZONE. SEE DETAIL. ALTERNATIVE DEVICES MAY BE USED AFTER APPROVAL BY ENGINEER.
8. INLET PROTECTION IS TO BE USED DURING CONSTRUCTION. SEE MN/DOT SPECIFICATIONS.
9. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH CITY, COUNTY, STATE AND BCWD PERMITS.
10. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES, INCLUDING THE REMOVAL OF ACCUMULATED SILT IN FRONT OF SILT FENCES OR OTHER DEVICES DURING THE DURATION OF THE CONSTRUCTION.
11. CONTRACTOR SHALL PROVIDE ADDITIONAL TEMPORARY EROSION CONTROL MEASURES AS REQUIRED FOR CONSTRUCTION.
12. REMOVE ALL EROSION CONTROL MEASURES AT DIRECTION OF ENGINEER.
13. THE CONTRACTOR SHALL REMOVE ALL SOILS AND SEDIMENT TRACKED ONTO EXISTING STREETS AND PAVED AREAS WITHIN 24 HOURS OF NOTICE AND, ON A DAILY BASIS AND MORE OFTEN IF DEEMED NECESSARY BY CITY AND PROJECT ENGINEER.
14. IF BLOWING DUST BECOMES A NUISANCE, THE CONTRACTOR SHALL APPLY WATER FROM A TANK TRUCK OR OTHER MEANS APPROPRIATE TO ALL CONSTRUCTION AREAS.
15. INSPECT EROSION CONTROL DEVICES AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. IMMEDIATELY REPAIR FAILED OR FAILING EROSION CONTROL DEVICES.
16. SEDIMENT REMOVAL - SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT.
17. ANY SEDIMENT REMAINING IN PLACE AFTER THE EROSION CONTROL DEVICE IS NO LONGER REQUIRED SHALL BE GRADED TO CONFORM WITH THE EXISTING GRADE, PREPARED, AND SEEDED WITH THE APPROPRIATE SEED MIX AND MULCH OR EROSION CONTROL REVEGETATIVE BLNAKET AS DIRECTED BY THE ENGINEER.
18. SUITABLE GRADING MATERIAL SHALL CONSIST OF ALL SOIL ENCOUNTERED ON THE SITE WITH EXCEPTION OF TOPSOIL, DEBRIS, ORGANIC MATERIAL AND OTHER UNSTABLE MATERIAL. STOCKPILE TOPSOIL AND GRANULAR FILL AT LOCATIONS DIRECTED BY OWNER.
19. FINAL GRADING TOLERANCES ARE ±0.1 FEET OF PLAN GRADES.
20. ALL EXCESS MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OFF THE CONSTRUCTION SITE.
21. CONTRACTOR IS RESPONSIBLE FOR GRADING AND SLOPING THE FINISHED GROUND SURFACE TO PROVIDE SMOOTH & UNIFORM SLOPES, WHICH PROVIDE POSITIVE DRAINAGE AND PREVENT PONDING IN LOWER AREAS. CONTACT ENGINEER IF FIELD ADJUSTMENTS TO GRADING PLANS ARE REQUIRED.
22. TURF RESTORATION IS TO BE SEEDED AND BLANKETED IN ACCORDANCE WITH THE RESTORATION PLAN.
23. THE PROJECT IS LOCATED IN WHAT THE OWNER CONSIDERS AN ENVIRONMENTALLY SENSITIVE AREA. DISTURBANCE IS TO BE MINIMIZED TO THE EXTENT POSSIBLE. RESTORATION OF ANY DISTURBED AREA OUTSIDE OF THE CONSTRUCTION LIMITS IS TO BE CONSIDERED INCIDENTAL TO THE PROJECT.

GENERAL SITE WORK NOTES

1. REFERENCE TO MN/DOT SPECIFICATIONS SHALL MEAN THE 2020 SPECIFICATIONS FOR CONSTRUCTION.
2. ENGINEER WILL PROVIDE 1 BENCHMARK ON TOP OF INTAKE STRUCTURE LOCATED IN POND. ELEVATION OF CONTROL WILL BE PROVIDED TO CONTRACTOR.
3. SITE ACCESS IS ONLY OFF MORGAN COURT FROM MORGAN AVENUE N.
4. FOLLOW MN/DOT STD. SPECIFICATION 2575 FOR VEGETATION ESTABLISHMENT REQUIREMENTS.
5. INSTALL MN/DOT SEED MIX 130 AND TYPE 3 MULCH PER SPECIFICATION 3876 FOR TEMPORARY COVER OF GRADED AREAS INCLUDING TOPSOIL STOCKPILES.
6. TOPOGRAPHIC INFORMATION PER BOUNDARY AND TOPOGRAPHIC SURVEY BY ORIGINAL MFRA DESIGN AND EOR SUPPLEMENTAL SURVEY.
7. CONTRACTOR SHALL INSTALL, INSPECT, MAINTAIN AND REMOVE THE NECESSARY SIGNAGE FOR TRAFFIC CONTROL. ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MN MUTCD.

TRAIL ACCESS NOTES

1. CONTRACTOR SHALL COORDINATE TRAIL ACCESS AND PUBLIC CLOSURES, AS NEEDED, WITH THE CITY OF STILLWATER.

HARVEST POND BYPASS / DEWATERING NOTES

1. THE HARVEST POND IS CONSIDERED A PUBLIC WATER FOR WHICH TEMPORARY DRAWDOWN IS REGULATED UNDER MN STATUTE 103G.408. ANY DEWATERING SHALL ADHERE TO THE REQUIREMENTS OF THE CITY, DISTRICT, AND STATE.
2. MNDOT SECTIONS 2573 STORMWATER MANAGEMENT AND 3875 WATER TREATMENT APPLY.
3. IF DEWATERING IS NEEDED, THE CONTRACTOR MUST SUBMIT A PLAN FOR DEWATERING AND PUMPING THAT SPECIFIES HOW MUCH WATER THEY ANTICIPATE PUMPING, THE METHOD FOR DEWATERING, THE LOCATION OF DISCHARGE, AND PROVISIONS FOR MANAGING DISCHARGE OF TURBID OR SEDIMENT LADEN WATER.
4. DEWATERING WORK SHALL INCLUDE ALL WORK ITEMS NECESSARY TO COMPLETE REMOVAL OF POND WATER AS NECESSARY FOR THE WORK, INCLUDING BUT NOT LIMITED TO SEDIMENT CONTROL.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING SITE DISCHARGES, INCLUDING BUT NOT LIMITED TO PUMPING OF SEDIMENT LADEN WATER.
6. THE CONTRACTOR MAY DIVERT STREAM INFLOW TO THE HISTORIC CHANNEL ALIGNED ALONG THE WEST SIDE OF THE POND TO ALLOW THE STREAM TO BYPASS THE PUMP HARVEST POND. NOTE THAT USE OF THIS CHANNEL HAS NOT BEEN TESTED. MEANS OF DIVERSION TO BE REVIEWED BY THE PROJECT ENGINEER. DIVERSION OF FLOW IS INCIDENTAL TO DEWATERING (MNDOT 2573.601).
7. THE HARVEST PONDS PUMPING SYSTEM MAY BE UTILIZED, UPON REQUEST, TO DRAW THE POND DOWN TO AN ELEVATION OF APPROXIMATELY 872.9 FEET. PUMPED WATER WITH THE IN-PLACE SYSTEM MUST NOT BE SEDIMENT LADEN.

Plot Date: 11/18/2022
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RYAN FLEMING
DATE: 10-30-2022 LICENSE # ----

SUBMISSION DATE: 10-30-2022
DESIGN BY RF DRAWN BY BR
EOR PROJECT NO. 00041-0339

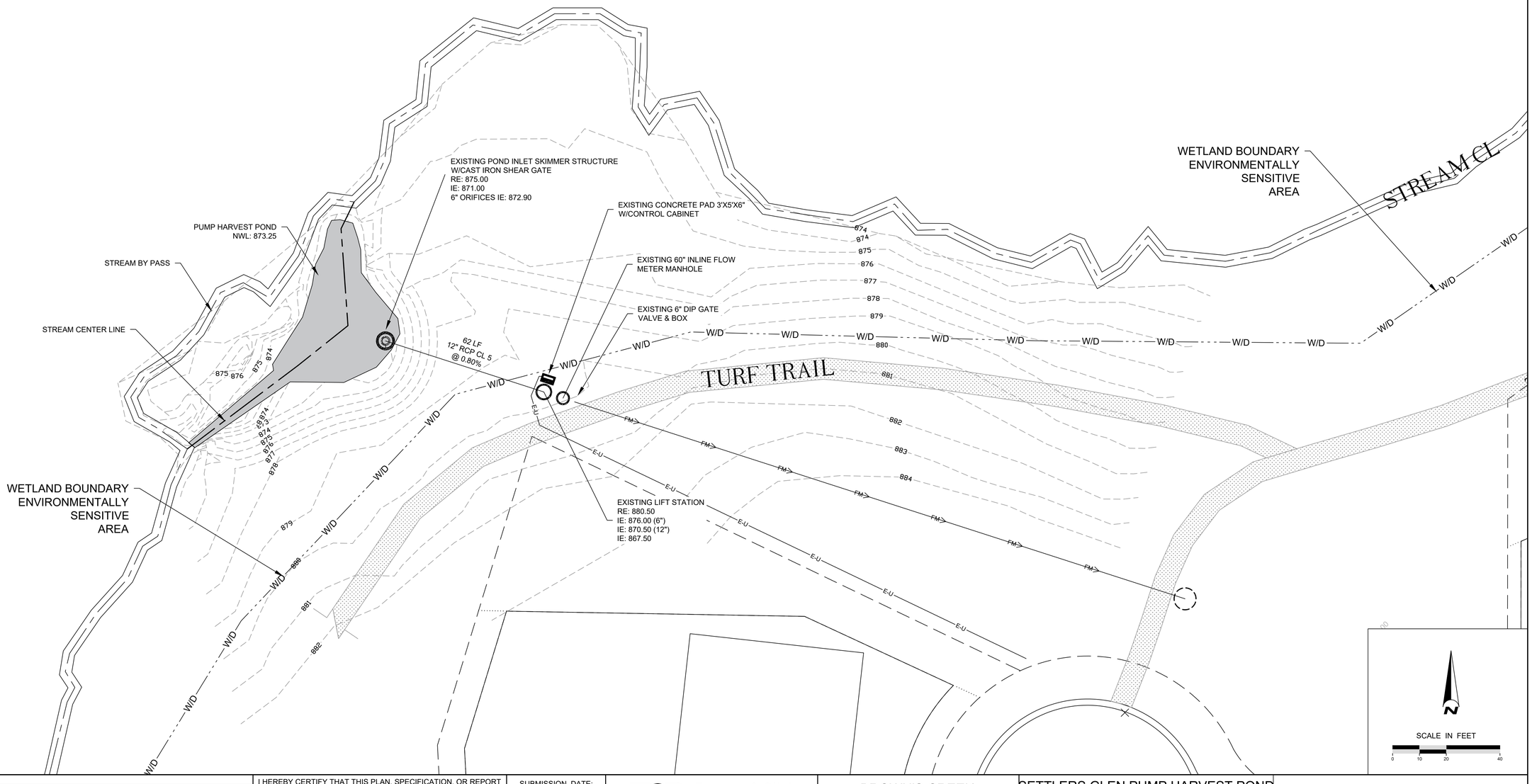
EOR water ecology community
Emmons & Olivier Resources, Inc.
1919 UNIV. AVE W #300
ST. PAUL, MN 55104
TELE: 651.770.8448
www.eor.com

BROWN'S CREEK WATERSHED DISTRICT
455 HAYWARD AVE N
OAKDALE, MN 55128

SETTLERS GLEN PUMP HARVEST POND DREDGING
STILLWATER, WASHINGTON, MINNESOTA
STATE PROJECT NO. ---- CITY PROJECT NO. ---

SEQ & NOTES
SHEET 02 OF 06 SHEETS

EXHIBIT A



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RYAN FLEMING
DATE: 10-30-2022 LICENSE # ----

SUBMISSION DATE: 10-30-2022

DESIGN BY RF | DRAWN BY BR

EOR PROJECT NO. 00041-0339

Emmons & Olivier Resources, Inc.
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SETTLERS GLEN PUMP HARVEST POND DREDGING
STILLWATER, WASHINGTON, MINNESOTA

STATE PROJECT NO. ---- | CITY PROJECT NO. ---

EXISTING CONDITIONS

SHEET 03 OF 06 SHEETS

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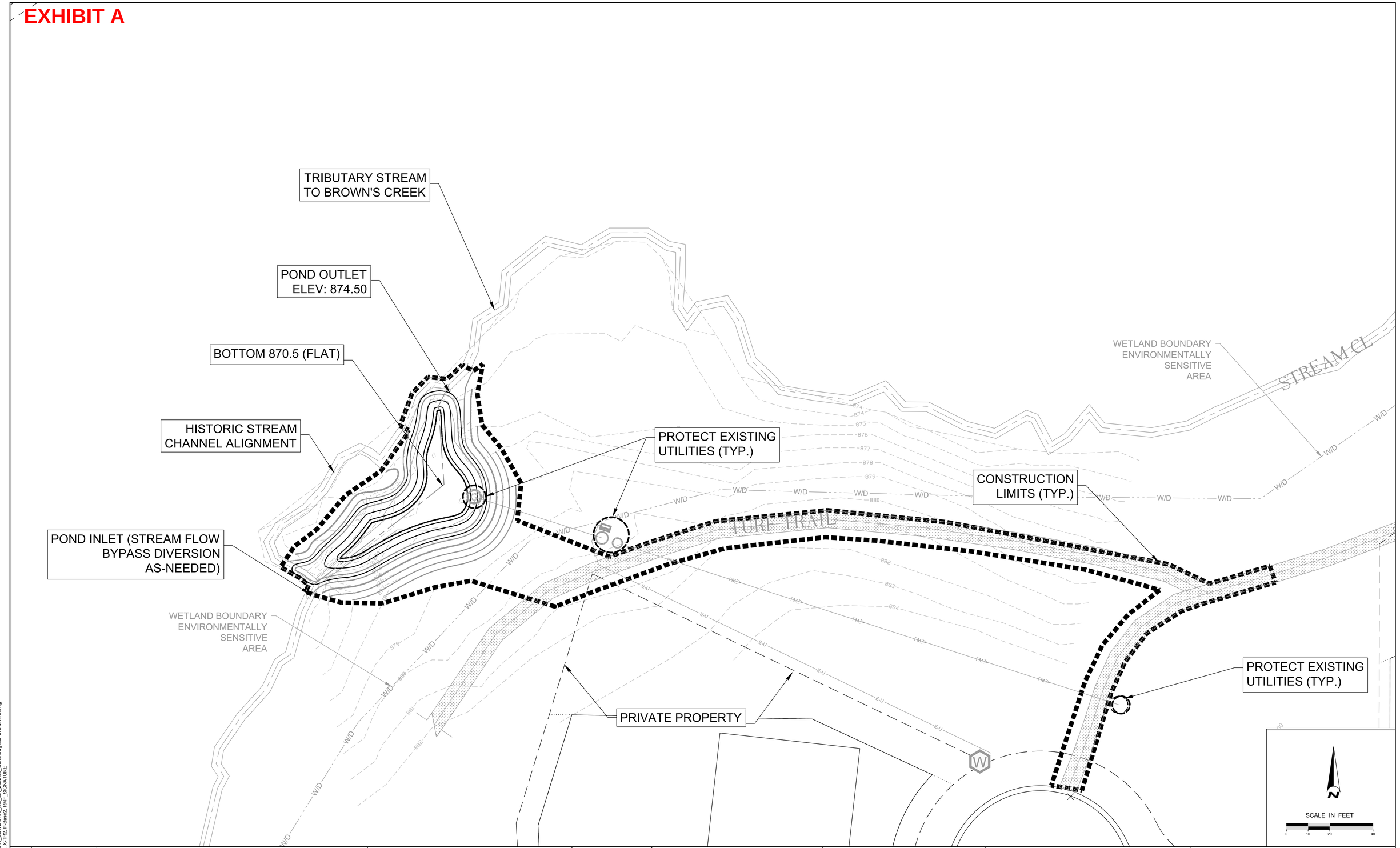
EXHIBIT A



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RYAN FLEMING
DATE: 10-30-2022 LICENSE # ----

SUBMISSION DATE: 10-30-2022

DESIGN BY RF DRAWN BY BR

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455 HAYWARD AVE N
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SETTLERS GLEN PUMP HARVEST POND DREDGING
STILLWATER, WASHINGTON, MINNESOTA

STATE PROJECT NO. ---- CITY PROJECT NO. ---

PROPOSED GRADING

SHEET 04 OF 06 SHEETS

Plot Date: 11/18/2022
Drawing Name: K:\Projects_wet\0041_BCWD\0408_ieaf_om_2022\09_GIS\dwg\CD-DRAWING.dwg
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EXHIBIT A

ALL DISTURBED AREAS TO BE RESTORED WITH CORRESPONDING SEED MIX

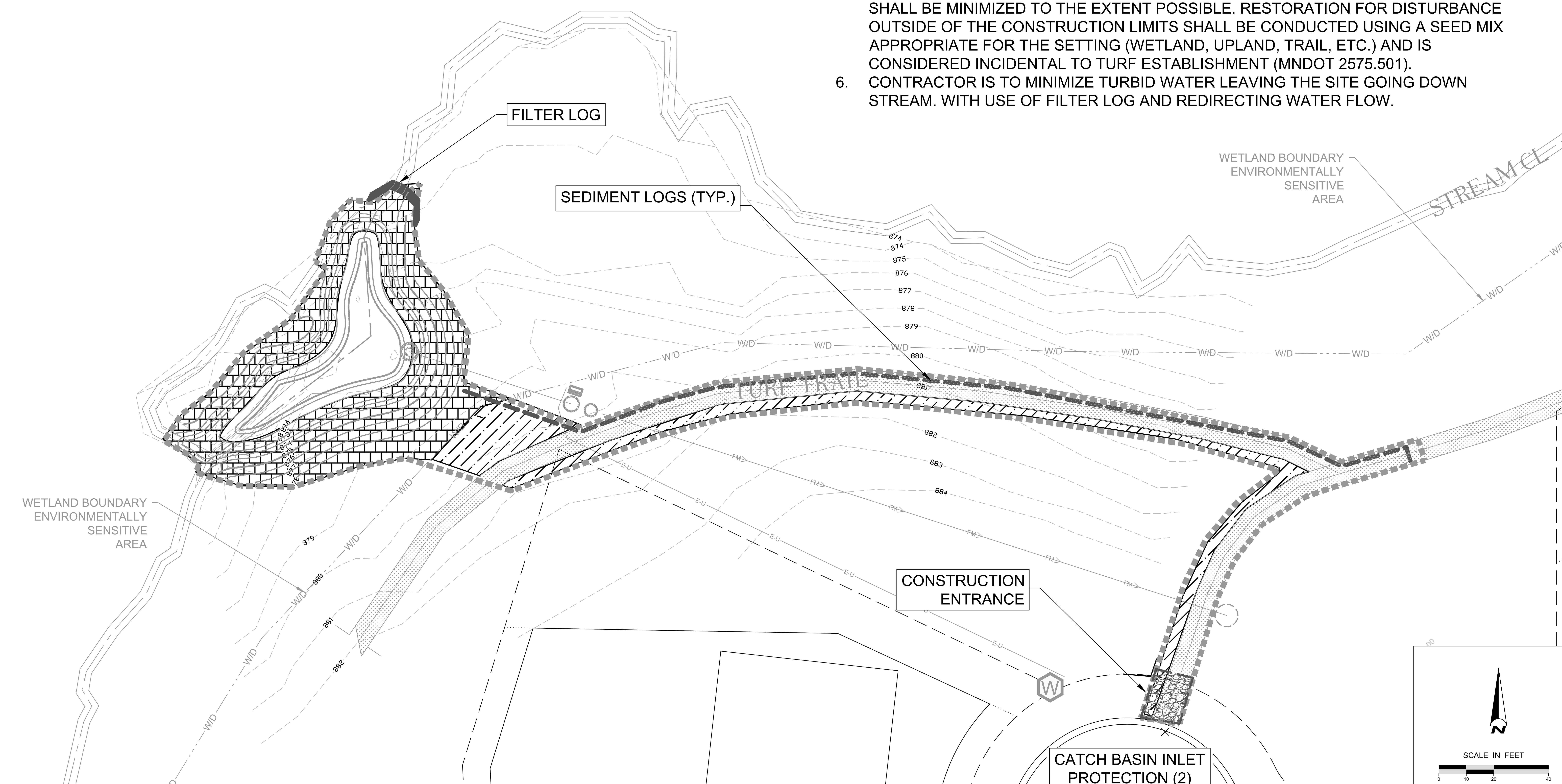
33-261 STORMWATER SOUTH & WEST 35 LB/ACRE WITH CATEGORY 0 NATURAL EROSION CONTROL BLANKET (CURLEX NETFREE OR APPROVED EQUAL) INCIDENTAL,

35-241 MESIC PRAIRIE GENERAL 36.5 LB/ACRE WITH CATEGORY 0 NATURAL EROSION CONTROL BLANKET (CURLEX NETFREE OR APPROVED EQUAL) INCIDENTAL.

25-131 LOW MAINTENANCE TURF 220 LB/ACRE WITH CATEGORY 0 NATURAL EROSION CONTROL BLANKET (CURLEX NETFREE OR APPROVED EQUAL) INCIDENTAL.

RESTORATION NOTES:

1. RESTORE ALL DISTURBED AREAS WITH SEED MIXES AND EROSION CONTROL BLANKET AS SHOWN ON PLANS.
2. PRIOR TO SEEDING PREPARE THE SEED BED PER Mn-DOT SPEC 2574.A4.
3. ACCEPTABLE SEEDING DATES ARE APRIL 15 - JULY 20 IN THE SPRING, OR SEPTEMBER 20 - OCTOBER 20 IN THE FALL. WRITTEN PERMISSION BY THE ENGINEER TO PERFORM SEEDING OPERATIONS ON ANY OTHER DATES OF THE YEAR.
4. INCLUDE A COVER CROP OF OATS WITHIN NATIVE SEE MIXES (AT A RATE OF 80LB/ACRE) IF SEEDING BETWEEN OCTOBER 15 AND AUGUST 1. IF SEEDING BETWEEN AUGUST 1 AND OCTOBER 15, SUBSTITUTE WINTER WHEAT FOR OATS AT THE SAME RATE.
5. THE SITE IS LOCATED IN AN ENVIRONMENTALLY SENSITIVE AREA. DISTURBANCE SHALL BE MINIMIZED TO THE EXTENT POSSIBLE. RESTORATION FOR DISTURBANCE OUTSIDE OF THE CONSTRUCTION LIMITS SHALL BE CONDUCTED USING A SEED MIX APPROPRIATE FOR THE SETTING (WETLAND, UPLAND, TRAIL, ETC.) AND IS CONSIDERED INCIDENTAL TO TURF ESTABLISHMENT (MNDOT 2575.501).
6. CONTRACTOR IS TO MINIMIZE TURBID WATER LEAVING THE SITE GOING DOWN STREAM. WITH USE OF FILTER LOG AND REDIRECTING WATER FLOW.



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RYAN FLEMING
DATE: 10-30-2022 LICENSE # ----

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STATE PROJECT NO. ---- | CITY PROJECT NO. ---

EROSION CONTROL & RESTORATION

SHEET 05 OF 06 SHEETS

Plot Date: 11/18/2022
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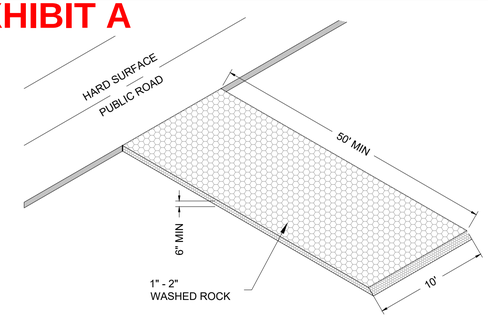
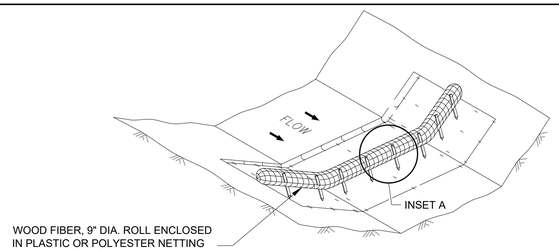
EXHIBIT A



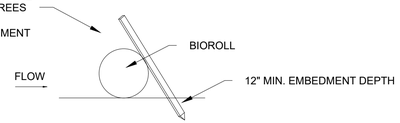
NOTE :
1. ROCK CONSTRUCTION ENTRANCE SHALL BE MAINTAINED FOR THE DURATION OF THE CONSTRUCTION PROCESS.
2. ROCK CONSTRUCTION ENTRANCE SHALL BE REMOVED AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED AND AREA SHALL BE RESTORED PER THE RESTORATION PLAN SHEET.
3. ALTERNATIVE CONSTRUCTION ENTRANCE MAY BE UTILIZED AFTER APPROVAL BY ENGINEER.

01/06 ROCK CONSTRUCTION ENTRANCE

(No Scale)



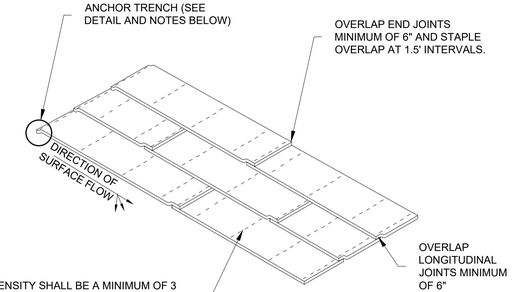
1" X 2" X 24" LONG WOODEN STAKES AT 5' 0" SPACING MAXIMUM. STAKES SHALL BE DRIVEN ON THE DOWN GRADIENT SIDE OF THE SEDIMENT LOG AT AN ANGLE OF 45 DEGREES WITH THE TOP OF THE STAKE POINTING UPSTREAM. PROVIDE 12" MIN. OF EMBEDMENT DEPTH.



INSET "A"

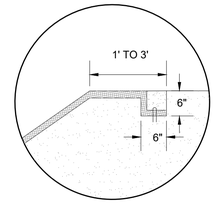
02/06 SEDIMENT LOG STAKING DETAIL

(No Scale)



STAPLE DENSITY SHALL BE A MINIMUM OF 3 U-SHAPED 8", 11 GAUGE METAL STAPLES PER SQUARE YARD (THIS MAY VARY AS DIRECTED BY THE CITY).

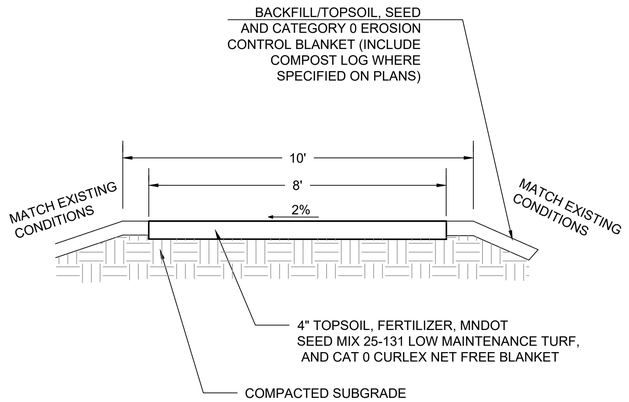
ANCHOR TRENCH
1. DIG 6" X 6" TRENCH
2. LAY BLANKET IN TRENCH
3. STAPLE AT 1.5' INTERVALS
4. BACKFILL WITH NATURAL SOIL AND COMPACT
5. BLANKET LENGTH SHALL NOT EXCEED 100' WITHOUT AN ANCHOR TRENCH



NOTE :
1. ALL EROSION CONTROL BLANKED TO BE CAT 0 CURLEX NET FREE BLANKET OR APPROVED EQUAL.

03/06 EROSION CONTROL BLANKET DETAIL

(No Scale)

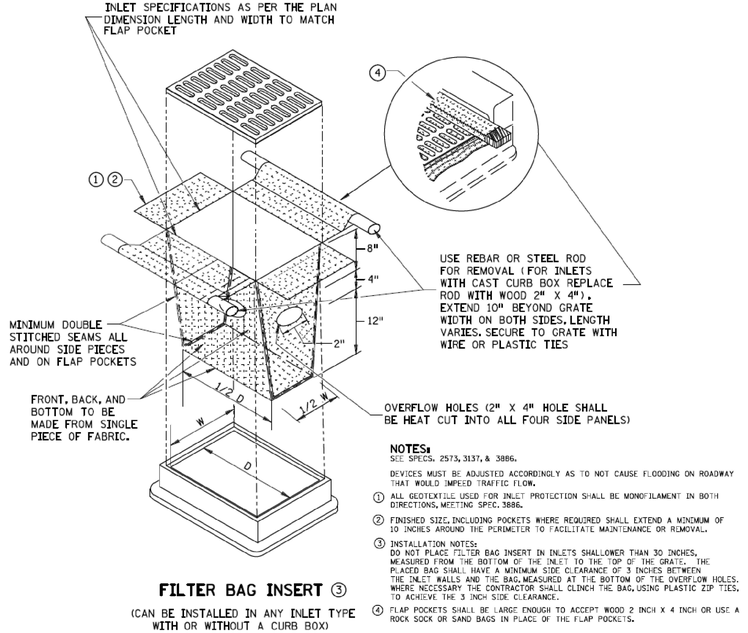


NOTES:

1. CONTRACTOR TO RESTORE TRAIL TO ORIGINAL CONDITION.
2. ALL SEEDING AND RESTORATION SHALL OCCUR WITHIN 7 DAYS OF FINAL GRADING.

04/06 TRAIL RESTORATION

(No Scale)



FILTER BAG INSERT ③

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX)

NOTES:
SEE SPECS. 2573, 3137, & 3886.

DEVICES MUST BE ADJUSTED ACCORDINGLY AS TO NOT CAUSE FLOODING ON ROADWAY THAT WOULD IMPEED TRAFFIC FLOW.

① ALL GEOTEXTILE USED FOR INLET PROTECTION SHALL BE MONOFILAMENT IN BOTH DIRECTIONS, MEETING SPEC. 3886.

② FINISHED SIZE, INCLUDING POCKETS WHERE REQUIRED SHALL EXTEND A MINIMUM OF 10 INCHES AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

③ INSTALLATION NOTES:
DO NOT PLACE FILTER BAG INSERT IN INLETS SHALLOWER THAN 30 INCHES, MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE. THE PLACED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE OF 3 INCHES BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES. WHERE NECESSARY THE CONTRACTOR SHALL CLINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCH SIDE CLEARANCE.

④ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2 INCH X 4 INCH OR USE A ROCK SOCK OR SAND BAGS IN PLACE OF THE FLAP POCKETS.

05/06 STORM DRAIN INLET PROTECTION

(No Scale)

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

RYAN FLEMING
DATE: 10-30-2022 LICENSE # ----

SUBMISSION DATE: 10-30-2022

DESIGN BY RF | DRAWN BY BR

EOR PROJECT NO. 00041-0339

Emmons & Olivier Resources, Inc.
1919 UNIV. AVE W #300
ST. PAUL, MN 55104
TELE: 651.770.8448
www.eor.com
water ecology community

BROWN'S CREEK WATERSHED DISTRICT
455 HAYWARD AVE N
OAKDALE, MN 55128

SETTLERS GLEN PUMP HARVEST POND DREDGING
STILLWATER, WASHINGTON, MINNESOTA

STATE PROJECT NO. ---- | CITY PROJECT NO. ---

DETAIL SHEETS

SHEET 06 OF 06 SHEETS

Plot Date: 11/18/2022
Drawing Name: X:\Projects_wt\041_BCWD\0408_ied_cm_202209_GMS\dwg\CD-DRAWING.dwg
Xrefs: PARCELS2, X-BASE2, X-TR2, P-Base2, RMF_SIGNATURE

EXHIBIT B

QUOTE FORM FOR SETTLERS GLEN PUMP HARVEST POND DREDGING

Item No.	Item	MNDOT Ref #	Unit	# Units	Unit Price	Total Price
Division 2: General / Grading						
1	Mobilization	2021.501	LS	1.00		
2	Muck Excavation (EV) (Including Disposal)	2105.507	CY	215.00		
					Subtotal	
Division 2: Miscellaneous Construction						
3	Stabilized Construction Exit (Install, Maintain & Removal)	2573.501	LS	1.00		
4	Storm Drain Inlet Protection (Install, Maintain & Removal)	2573.501	LS	1.00		
5	Sediment Control & Filter Log (Install, Maintain & Removal)	2573.503	LF	390.00		
6	Turf Establishment	2575.501	LS	1.00		
7	Dewatering and Pumping	2573.601	LS	1.00		
					Subtotal	
					Project Total	

ATTACHMENT 1

COOPERATIVE AGREEMENT BETWEEN CITY OF STILLWATER AND BROWN'S CREEK WATERSHED DISTRICT FOR THE SETTLER'S GLEN IRON-SAND FILTRATION PROJECT

THIS AGREEMENT is made by and between the City of Stillwater (City), a Minnesota charter city and body corporate and politic, and the Brown's Creek Watershed District (BCWD), a watershed district with purposes and powers set forth in Minnesota Statutes chapters 103B and 103D (together, the Parties).

RECITALS

WHEREAS BCWD has authority under chapters 103B and 103D to design and implement programs and projects to improve water quality and protect water resources within the Brown's Creek watershed;

WHEREAS BCWD has an approved water-resources management plan pursuant to Minnesota Statutes chapter 103B, and in fulfillment of a goal of the plan, BCWD has completed a management plan for McKusick Lake in collaboration with the City of Stillwater and the Middle St. Croix Watershed Management Organization that calls for the removal of 148 pounds of phosphorous each year from the portion of the Brown's Creek watershed tributary to McKusick Lake;

WHEREAS on April 9, 2012, the BCWD Board of Managers ordered, in accordance with Minnesota Statutes section 103B.251, the construction of an iron-enhanced sand filter on an outlot dedicated to City on the plat for the Settler's Glen addition (the Outlot) and three properties owned by private parties (the Private Properties) to reduce phosphorus in McKusick Lake (the Project). The preliminary site plan for the Project is attached to and incorporated into this agreement as Exhibit A;

WHEREAS City supports the implementation of the McKusick Lake management plan and wishes to facilitate BCWD's construction, operation and maintenance of the Project;

WHEREAS City holds an easement for a trail on two of the Private Properties (the Trail Easement, attached to and incorporated into this agreement as Exhibit B) and maintains an unpaved trail thereon (the Trail), and City holds a drainage and utility easement over each of the Private Properties (the Drainage Easement, as shown in the plat attached to and incorporated into this agreement as Exhibit C) (together, the Easements) and the portions of the Project to be constructed on the Private Properties are entirely within the Drainage Easement, as shown in Exhibit A;

WHEREAS City has constructed and presently maintains stormwater-management ponds on the Outlot and Drainage Easement, as shown in Exhibit A (the Facilities); and

WHEREAS City and BCWD acknowledge that BCWD's ability to achieve Project objectives depends on the Parties' continued cooperation.

NOW, THEREFORE, IT IS AGREED by and between City and BCWD that they enter into this Cooperative Agreement to document their understanding as to the scope of the Project, affirm their commitments as to responsibility for tasks to be undertaken, grant and assign the property rights necessary, establish procedures for performing these tasks and fulfilling responsibilities, and facilitate communication and cooperation to ensure successful completion of the Project to improve water quality in McKusick Lake.

AGREEMENT

1. CITY'S RIGHTS AND COMMITMENTS AND GRANT AND ASSIGNMENT OF RIGHTS FOR ACCESS, CONSTRUCTION AND MAINTENANCE

A. City has the right to review and comment on the 90 percent-complete plans and specifications for the Project provided in accordance with paragraph 2A of this agreement and, within 30 days of receipt of the plans and specifications from BCWD, provide comments.

B. BCWD's construction of the Project will entail excavation, grading and filling; alteration of topography, vegetation, hydrology and stormwater treatment systems; construction of an upstream harvesting basin and pump lift station with associated intake unit; integration of an iron-sand filtration system into the Facilities; installation of an under-drain treated-discharge outlet; and trenching for installation of conduit under the Trail. After completion of construction, maintenance of the Project will entail assessment of the effectiveness and maintenance of the Project, and may involve reconstruction of the Project to restore its effectiveness. For these purposes, the City hereby:

   i. grants to BCWD, its contractors, agents and assigns an easement to access and use the access, construction and maintenance areas of the Outlot, as delineated on Exhibit A;

   ii. authorizes the BCWD, its contractors, agents and assignees to utilize City's rights under the Easements to access and use the access, construction and maintenance areas of the Easements, as delineated on Exhibit A. City's authorization hereunder is nonexclusive, except that BCWD, on reasonable notice to City, may temporarily restrict or preclude public access to the Trail Easement in the access, construction and maintenance areas to ensure safety while construction or maintenance activities are under way.

C. City will forbear from any activity that interferes with the BCWD's ability to exercise its rights or meet its obligations under this agreement, including but not limited to City transfer of ownership of the Outlot or vacation of the Easements. City will facilitate BCWD's reasonable exercise of its rights under this agreement with regard to access to and use of the Outlot and Easements. City will not take any action within the Outlot and Easements areas that could reasonably be expected to diminish the effectiveness or function of the Project for the purposes intended, and after notice of completion of construction of the Project from BCWD, City will maintain the Trail in a manner that

avoids altering flow through the conduits constructed under the Trail as part of the Project.

D. City, as owner of the Outlot and Easements, will cooperate with BCWD's and its contractor's efforts to obtain permits and approvals needed for the Project and will serve as a co-applicant for permits and approvals. City, in its regulatory capacity, will facilitate the proper and efficient processing of any permits and approvals needed for the Project.

E. On completion of construction of the Project, City will retain ownership of the improved Facilities and will maintain the Facilities in coordination with BCWD's maintenance of the Project as provided in paragraph 2.C.iv of this agreement.

F. City will cooperate with BCWD in all communications and outreach to property owners affected by the Project.

2. BCWD'S RIGHTS AND COMMITMENTS

A. BCWD, at its sole expense, will prepare plans and specifications for the Project and submit the 90 percent-complete plans and specifications to City for review in accordance with paragraph 1A of this agreement. BCWD will ensure that plans and specifications and the Project, when constructed, are compatible with the Easements and this agreement.

B. As between the Parties, BCWD will obtain all necessary permits, licenses and approvals, including approval of a wetland replacement plan as necessary, and will ensure that the Project is completed in accordance with applicable law and regulatory standards and criteria.

C. BCWD will implement the Project as follows:

i. BCWD will prepare or have prepared on its behalf construction documents and will ensure that such documents provide for the restoration of the Outlot and Easements in accordance with the Easements and this agreement;

ii. BCWD will contract, in accordance with applicable law, for the construction of the Project. BCWD will require that the contractor for the Project name City as an additional insured for general liability and provide a certificate showing same prior to construction;

iii. BCWD, or the BCWD engineer on BCWD's behalf, will oversee the construction of the Project. BCWD may adjust the plans and specifications for the Project during construction, as long as the revised plans do not require BCWD to exceed the scope of the rights granted under this agreement;

iv. On completion of construction of the Project, BCWD will restore the access, construction and maintenances areas of the Outlot and Easements to a safe and functional condition, consistent with the Easements. In addition, on completion of construction of the Project and during the effective period of this agreement,

BCWD will operate and maintain the Project, contingent on City's facilitating reasonable access for such purposes as provided herein and in coordination with City's maintenance of the Facilities. On termination of this agreement, BCWD will ensure that the Project site is restored to a condition consistent with the use of the Outlot and Easements.

D. Until completion of construction, if BCWD, in its judgment, should decide that the Project is infeasible, BCWD, at its option, may declare the agreement rescinded and annulled. If BCWD so declares, all obligations herein, performed or not, will be voided; BCWD will return the Outlot and Easements materially to their prior condition or to a condition agreed on by City and BCWD.

3. COSTS. BCWD will be responsible for all costs of design and construction of the Project and the costs of the production of publicity, education and outreach materials related to the Project. BCWD will be responsible for the costs and fees associated with complying with regulatory requirements applicable to the Project, including the costs of any wetland replacement required by law, except that City will assess no fee to BCWD for City permits required for the Project, if any. BCWD will be responsible for the costs of maintenance – and, if necessary, reconstruction in whole or part – of the Project. City is and will remain responsible for the cost of maintenance of the Facilities during the term of and after termination of this agreement. Each of the Parties will bear its own administrative costs of fulfilling its responsibilities and obligations under this agreement.

4. PUBLICITY AND ENDORSEMENT. BCWD and City will collaborate on the development of educational and informational signage pertinent to the Project, and BCWD, at its cost, may develop, produce and distribute educational, outreach and publicity materials related to the Project, and may install, maintain, replace or remove signage on the Outlot related to the Project. All such signage and materials, whether produced by BCWD or City, will include acknowledgement of the Clean Water Legacy funding provided for the Project in accordance with Laws of Minnesota 2009, Chapter 172, Article 5, Section 10. For purposes of this paragraph, "publicity" includes notices, informational printed materials, press releases, research reports, signs and other public notices prepared by or on behalf of BCWD.

5. INDEPENDENT RELATIONSHIP; LIABILITY. This agreement does not create a joint powers board or organization within the meaning of Minnesota Statutes section 471.59. Each party agrees that it will be responsible only for its own acts and the results thereof to the extent authorized by the law and will not be responsible for the acts or omissions of the other party and the results thereof. This agreement creates no right in and waives no immunity, defense or liability limitation with respect to any third party. As between the Parties, only contract remedies are available for a breach of this agreement.

City and BCWD enter this agreement solely for the purposes of construction and maintenance of the Project to improve water quality in Brown's Creek and McKusick Lake. BCWD does not have, has not had, and will not be deemed to have acquired by entry into or performance under this agreement, any form of interest or ownership in or to any portion of the Outlot or Easements. BCWD does not exercise, has not exercised, and will not by entry into or performance under this agreement be deemed to have exercised, any form of control over the use, operation or

management of any portion of the Outlot or Easements or property adjacent to the Project prior to the commencement of construction of the Project, so as to have rendered BCWD a potentially responsible party for any contamination under state or federal law.

7. TERM AND TERMINATION. This agreement becomes effective when fully executed. The agreement will remain in force for 10 years, and will renew automatically for an additional five-year term and renew again every five years on the anniversary of the first renewal unless terminated by mutual agreement of the Parties or otherwise in accordance with the terms of this agreement. Any responsibility or obligation that has come into being before expiration, specifically including obligations under sections 3 and 5 above, will survive expiration.

8. COMPLETE AGREEMENT. This agreement, as it may be amended in writing, constitutes the entire agreement between the Parties. Any amendment to this agreement must be in writing and will not be effective until it has been executed and approved by the same parties who executed and approved the original agreement or their successors in office.

9. NOTICE; COORDINATION. The Parties designate the following authorized representatives, each to serve as the liaison to the other party for purposes of coordinating inspection, construction oversight and maintenance of the Project as provided in this agreement. Any written communication required under this agreement will be addressed to the other party as follows, except that either party may change its address for notice by so notifying the other party in writing:

To City: Director
Public Works/Engineering
City of Stillwater
Stillwater MN 55155-4025

To BCWD: Administrator
Brown's Creek Watershed District
1380 West Frontage Road, Hwy 36
Stillwater, MN 55082

10. WAIVERS. The waiver by City or BCWD of any breach or failure to comply with any provision of this agreement by the other party will not be construed as nor will it constitute a continuing waiver of such provision or a waiver of any other breach of or failure to comply with any other provision of this agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement, intending to be legally bound.

BROWN'S CREEK WATERSHED DISTRICT,
a political subdivision of the State of Minnesota

Craig J. Leiser
By Craig Leiser
Its President
Dated: 3/11/13

APPROVED AS TO FORM
AND EXECUTION

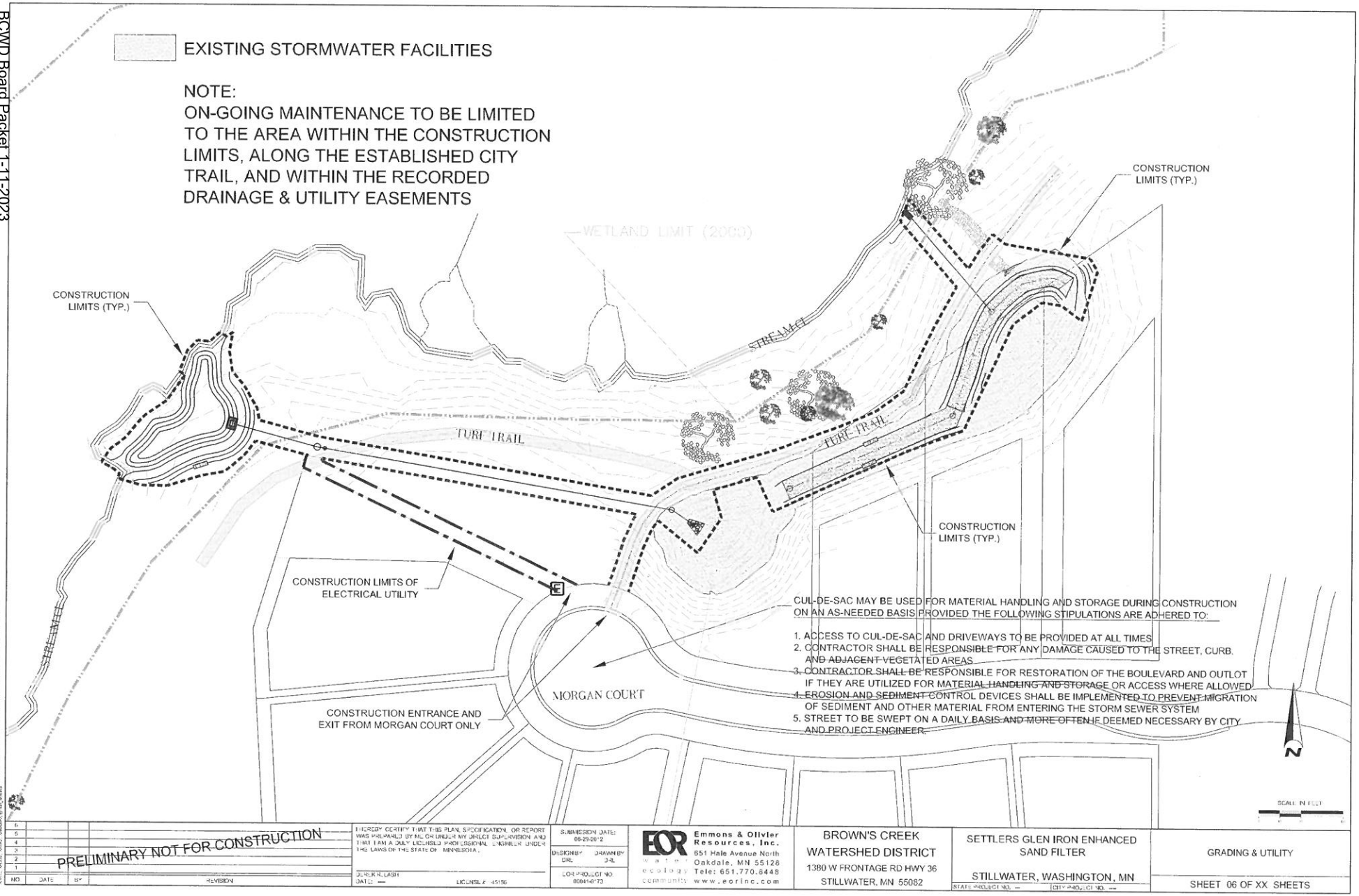
_____
BCWD Counsel

CITY OF STILLWATER,
a home rule charter city

_____
By Ken Harycki
Its Mayor
Dated: February 19, 2013

APPROVED AS TO FORM
AND EXECUTION

_____
City Attorney


EXISTING STORMWATER FACILITIES
NOTE:
ON-GOING MAINTENANCE TO BE LIMITED TO THE AREA WITHIN THE CONSTRUCTION LIMITS, ALONG THE ESTABLISHED CITY TRAIL, AND WITHIN THE RECORDED DRAINAGE & UTILITY EASEMENTS
WETLAND LIMIT (2009)
CONSTRUCTION LIMITS (TYP.)
CONSTRUCTION LIMITS (TYP.)
CONSTRUCTION LIMITS (TYP.)
TURF TRAIL
TURF TRAIL
STREET
STREET
CONSTRUCTION LIMITS OF ELECTRICAL UTILITY
MORGAN COURT
CONSTRUCTION ENTRANCE AND EXIT FROM MORGAN COURT ONLY
CUL-DE-SAC MAY BE USED FOR MATERIAL HANDLING AND STORAGE DURING CONSTRUCTION ON AN AS-NEEDED BASIS PROVIDED THE FOLLOWING STIPULATIONS ARE ADHERED TO:
1. ACCESS TO CUL-DE-SAC AND DRIVEWAYS TO BE PROVIDED AT ALL TIMES.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED TO THE STREET, CURB, AND ADJACENT VEGETATED AREAS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF THE BOULEVARD AND OUTLOT IF THEY ARE UTILIZED FOR MATERIAL HANDLING AND STORAGE OR ACCESS WHERE ALLOWED.
4. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE IMPLEMENTED TO PREVENT MIGRATION OF SEDIMENT AND OTHER MATERIAL FROM ENTERING THE STORM SEWER SYSTEM
5. STREET TO BE SWEPT ON A DAILY BASIS AND MORE OFTEN IF DEEMED NECESSARY BY CITY AND PROJECT ENGINEER.
N
SCALE IN FEET
PRELIMINARY NOT FOR CONSTRUCTION
NO | DATE | BY | REVISION
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
JENNIFER L. LASH
DATE: —
LICENSE #: 45156
SUBMISSION DATE: 08-29-2012
DESIGNED BY: DRL
DRAWN BY: JHL
COR PROJECT NO: 0064140-73
Emmons & Olivier Resources, Inc.
651 Hale Avenue North
Oakdale, MN 55128
Tele: 651.770.8448
www.eorinc.com
BROWN'S CREEK WATERSHED DISTRICT
1380 W FRONTAGE RD HWY 36
STILLWATER, MN 55082
SETTLERS GLEN IRON ENHANCED SAND FILTER
STILLWATER, WASHINGTON, MN
STATE PROJECT NO. —
CITY PROJECT NO. —
GRADING & UTILITY
SHEET 06 OF XX SHEETS

ENTERED IN TRANSFER RECORD
WASHINGTON COUNTY, MINNESOTA
November 19, 2004
MOLLY F. O'ROURKE, AUDITOR-TREASURER
BY Kristi M Hoar
DEPUTY

3480408

Office of the
County Recorder
Washington County, MN

Certified filed and/or recorded on:
2004/11/19 2:34:00 PM
3480408

Cindy Kemmann
County Recorder
By Cindy Kemmann

19.50
2.50

DECLARATION FOR CREATION AND MAINTENANCE OF TRAIL EASEMENT

Return to STEWART TITLE-JW 105707

This Declaration for Creation and Maintenance of Trail Easement (sometimes hereinafter referred to as "Declaration") is made effective this 18 day of November, 2004, between U.S. Home Corporation, a Delaware corporation (hereinafter referred to as "U.S. Home"), and the City of Stillwater, a Minnesota municipal corporation (hereinafter referred to as "City").

WHEREAS, U.S. Home is the owner of certain real property located in Washington County, Minnesota, legally described on Exhibit A attached hereto and incorporated herein (hereinafter referred to as the "Burdened Property"); and

WHEREAS, U.S. Home and City desire, as of this date, to create the trail easement as hereinafter set forth.

NOW, THEREFORE, the undersigned, U.S. Home Corporation, a Delaware corporation, hereby declares that the Burdened Property shall be held, sold and conveyed subject to the following easements, covenants, conditions, agreements and restrictions which are for the purpose of providing and maintaining certain trail facilities upon the Burdened Property for the benefit of the Benefited Parties. The easement which is hereby created shall run with the land, shall be binding upon and run with the land affected, and shall be binding upon all parties having any right, title or interest in the Burdened Property so described, or any part thereof, their heirs, successors and assigns.

DEFINITIONS

1. Burdened Owner. One or more persons or entities holding a fee simple interest in the Burdened Property described on Exhibit A. As of the date of this Declaration, U.S. Home Corporation, a Delaware corporation, is the owner of the Burdened Property.

2. Benefited Parties. The city and members of the public at large.

3. Trail Easement Area. The real property legally described on Exhibit B and graphically depicted on Exhibit C, both attached hereto and incorporated herein.

4. Trail Easement. The right to construct, reconstruct, maintain and repair the trail facilities over and across the Trail Easement Area for the purposes of pedestrian traffic, specifically excluding motor vehicle traffic and/or parking, except as granted below.

COVENANTS FOR CONSTRUCTION, RECONSTRUCTION, MAINTENANCE AND REPAIR

1. Construction by U.S. Home. U.S. Home agrees to construct the trail facilities as necessary to utilize the Trail Easement and as are required by City upon the Trail Easement Area.

2. Construction and Repair by City. Subject to the initial construction of trail facilities within the Trail Easement Area by U.S. Home, the city shall be responsible for the construction, reconstruction, maintenance and repair of the trail facilities located within the Trail Easement Area. In furtherance thereof and notwithstanding anything contained herein to the contrary, the City, its employees and/or agents shall have the right to enter into the Trail Easement Area with motorized vehicles.

EASEMENT

1. Trail Easement. The Burdened Property shall be subject to and burdened by the right of Benefited Parties to pass over and utilize the trail facilities as may be established by U.S. Home upon the Trail Easement Area. No motor vehicle traffic and/or parking rights are hereby granted, except to the extent necessary to comply with the Construction and Repair covenants above.

2. Interference with Easement. No obstruction which would prevent, restrict or otherwise inhibit the passage of pedestrians or maintenance equipment over any portion of the Trail Easement Area shall be erected, condoned or permitted to endure by the Burdened Owner, nor shall any other conduct, passive or affirmative, be permitted which would in any manner restrict the easement rights granted pursuant hereto.

MISCELLANEOUS

1. Restriction. The Burdened Owner, its successors or assigns, shall not grant any easement for the purpose set forth in this Declaration for the benefit of any other real property or other person or entity upon the Trail Easement Area.

2. Effect. The easements, covenants, conditions, restrictions and other provisions herein contained shall be perpetually binding and enforceable upon the Burdened Property herein described, its respective owners, heirs, successors and assigns forever and shall attach to and run with the land.

3. Severability. Invalidation of any one or more of the provisions herein contained shall not in any way affect the validity of the others, which shall remain in full force and effect.

IN WITNESS WHEREOF, the undersigned have caused this instrument to be executed as of the date and year first above written.

U.S. HOME CORPORATION, a
Delaware corporation

By: _____
John J. Liberacki
Its: Vice President

CITY OF STILLWATER, a
Minnesota municipal corporation

By: _____
Its: Mayor

STATE OF MINNESOTA)
) ss:
COUNTY OF HENNEPIN)

The foregoing was acknowledged before me this 17th day of November, 2004, by John J. Liberacki, Vice President of U.S. Home Corporation, a corporation under the laws of Delaware, on behalf of the corporation.

MELISSA REGAN
NOTARY PUBLIC – MINNESOTA
MY COMMISSION EXPIRES 1-31-09

_____
Notary Public

STATE OF MINNESOTA)
WASHINGTON) ss:
COUNTY OF [redacted])

The foregoing was acknowledged before me this 17th day of November, 2004, by Jay L. Kimble, the Mayor of the City of Stillwater, a municipal corporation under the laws of Minnesota, on behalf of the corporation.

_____
Notary Public

SUSAN L. O'BRIEN-MOORE
NOTARY PUBLIC
My Commission Expires 1-31-2005

THIS DOCUMENT WAS DRAFTED BY:
Brett A. Perry, Esq.
Messerli & Kramer P.A.
1800 Fifth Street Towers
150 South Fifth Street
Minneapolis, MN 55402
(612) 672-3600

EXHIBIT A

Burdened Property Legal Description

Lots 1 through 2, inclusive, Block 1;
All in Settlers Glen 5th Addition, Washington County, Minnesota.

EXHIBIT B

Trail Easement Area Legal Description

An easement for trail purposes over, under and across the following described property:

Lots 1 and 2, Block 1, Settlers Glen 5th Addition, according to the recorded plat thereof, Washington County, Minnesota.

Said easement lies northwesterly of the following described line:

Beginning on a point on the west line of said Lot 1 distant 5 feet south of the northwest corner thereof; thence northeasterly to a point on the east line of said Lot 1 distant 26 feet south of the northeast corner of said Lot 1; thence northeasterly to a point on the northerly line of said Lot 2 distant 36 feet northeasterly of said northeast corner of said Lot 1 and said line there terminating.

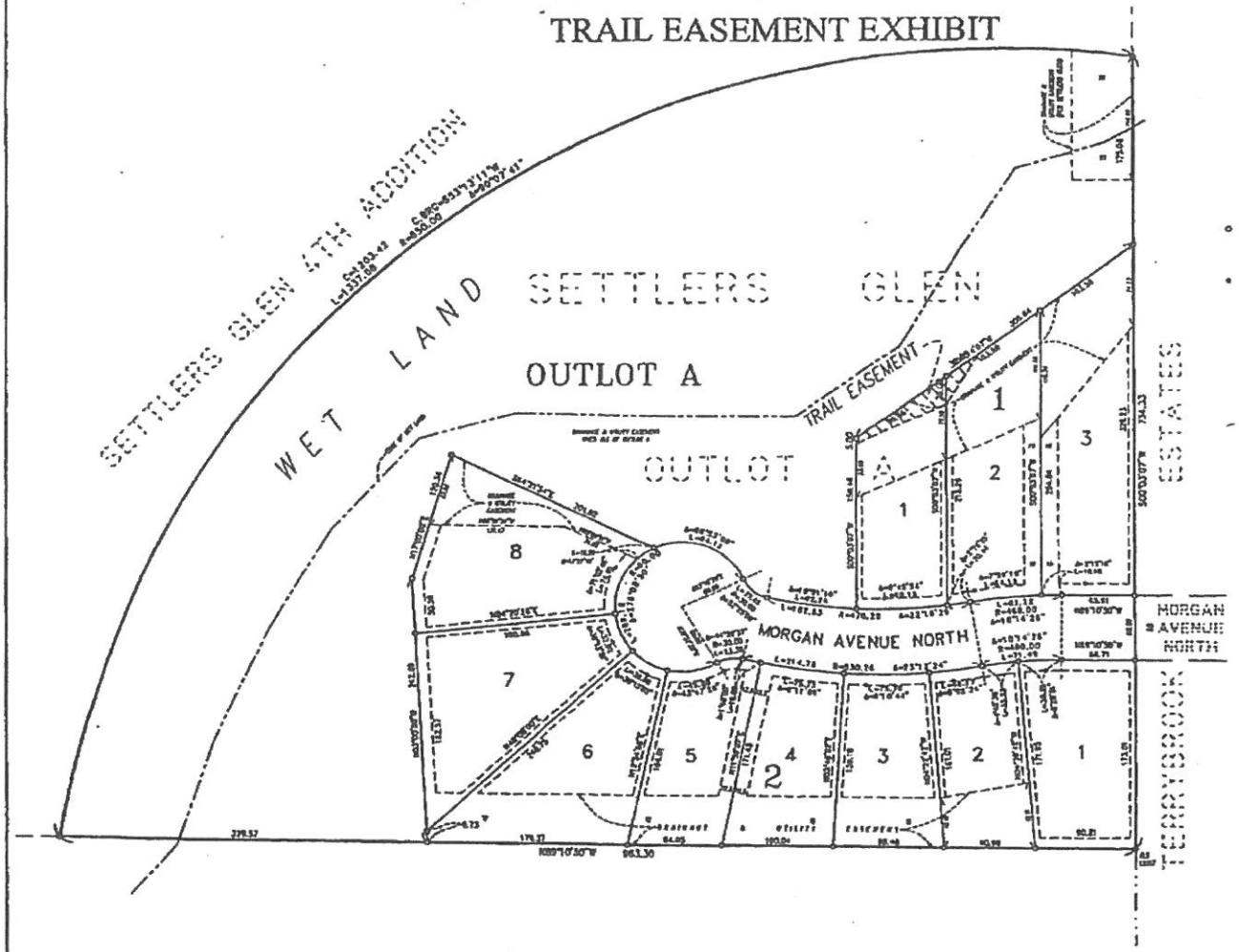
EXHIBIT C

Trail Easement Area Graphic Depiction

588645.1

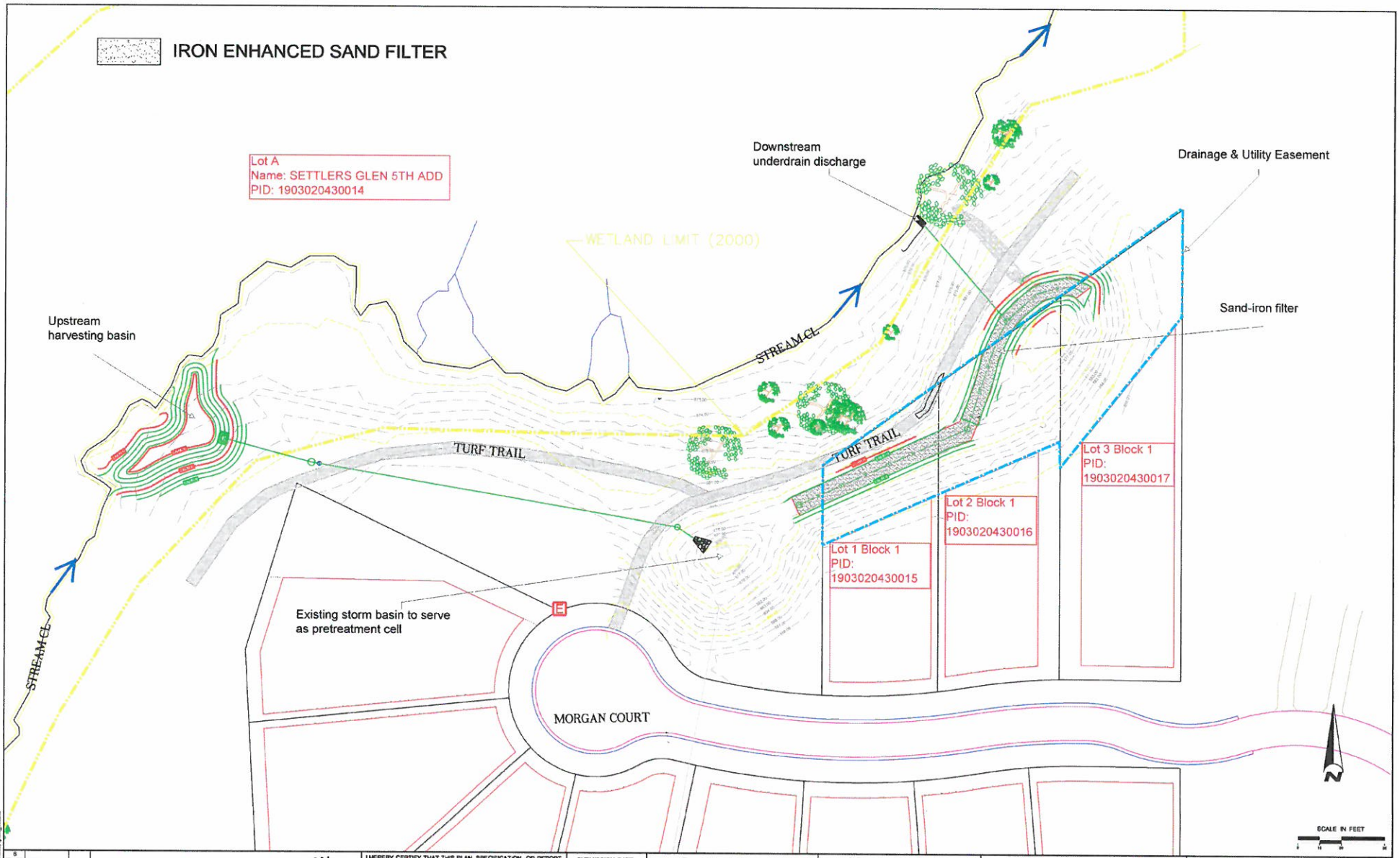
SETTLERS GLEN 5TH ADDITION

TRAIL EASEMENT EXHIBIT



McCOMBS FRANK ROOS ASSOCIATES, INC.
ENGINEERS AND LAND SURVEYORS

SHEET 2 OF 2 SHEETS



PRELIMINARY NOT FOR CONSTRUCTION

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DEREK R. LASH
DATE: —
LICENSE # 45156

SUBMISSION DATE: 06-29-2012
DESIGN BY: DRL
DRAWN BY: DRL
EOR PROJECT NO. 00041-0173

Emmons & Olivier Resources, Inc.
651 Hale Avenue North
Oakdale, MN 55128
Tele: 651.770.8448
www.eorinc.com

BROWN'S CREEK WATERSHED DISTRICT
1380 W FRONTAGE RD HWY 36
STILLWATER, MN 55082

SETTLERS GLEN IRON ENHANCED SAND FILTER
STILLWATER, WASHINGTON, MN
STATE PROJECT NO. — CITY PROJECT NO. —

GRADING & UTILITY

SHEET 06 OF XX SHEETS

ATTACHMENT 2

Project Name |	Settlers Glen Iron-Enhanced Sand Filter	**Date** |	11/21/2022
To / Contact info |	Karen Kill, BCWD Administrator		
Cc / Contact info |	Ryan Fleming, PE		
From / Contact info |	Stu Grubb, PG; Matt Hegland, GIT		
Regarding |	Sediment analysis and disposal options		

Background

Sediment removed from stormwater ponds must be analyzed to determine suitable disposal options. EOR collected and analyzed soils samples from the settling pond in accordance with the procedures shown in the MPCA guidance document "Managing Stormwater Sediment Best Management Practices Guidance" (May 2017).

Fieldwork and Lab Analyses

Brian Rucker collected the samples on November 2, 2022. Sample 1 was collected at the inlet to the filter and Sample 2 was collected at the outlet from the filter. Samples were collected with a PVC suction sampler.

Sediment samples were delivered to Pace Analytical Labs for analysis of PAH's (extended list), copper, and arsenic. Lab reports and analytical results are attached.

Results and Discussion

Laboratory analytical results are shown in Table 1. The results were compared to residential and industrial soil reference values (SRV's) published by MPCA. The arsenic concentrations of both samples were above the SRV's, and the PAH Equivalents were well above the SRV for Sample 2. Because the concentrations exceed the residential SRV's for one or more analyte, the sediment is a regulated solid waste. The MPCA guidance states the material should be sent to a Municipal Solid Waste facility, or a landfill with a liner and leachate collection system.

Phosphorous was analyzed to determine the quantity of phosphorous removed by the sediment basin. Phosphorus is not considered hazardous to human health, so no SRV has been established.

Table 1 – Analytical Concentrations and Residential Soil Reference Values (SRV)

Analyte	Sample 1 (Upstream)	Sample 2 (Downstream)	SRV
Arsenic (mg/kg)	16.9	16.2	9
Copper (mg/kg)	17.1	17.9	100
PAH (BAP Equivalents)	0.842	7.596	2
Phosphorous (mg/kg)	2630	2520	Not applicable

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

November 07, 2022

Brian Rucker
Emmons & Oliver Recources
1919 University Ave W
Suite 300
Saint Paul, MN 55128

RE: Project: Sediment
Pace Project No.: 10631212

Dear Brian Rucker:

Enclosed are the analytical results for sample(s) received by the laboratory on October 26, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Duluth, MN
- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Yeng Ozawa
yeng.ozawa@pacelabs.com
(612)607-1700
Project Manager

Enclosures

cc: Accounting, Emmons & Oliver Resources
Beth Clubb, Emmons & Olivier Resources

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: Sediment
Pace Project No.: 10631212

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
A2LA Certification #: 2926.01*
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009*
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014*
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605*
Georgia Certification #: 959
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086*
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064*
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137*
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240*
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081*
New Jersey Certification #: MN002
New York Certification #: 11647*
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Ohio VAP Certification (1800) #: CL110*
Oklahoma Certification #: 9507*
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001*
Pennsylvania Certification #: 68-00563*
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192*
Utah Certification #: MN00064*
Vermont Certification #: VT-027053137
Virginia Certification #: 460163*
Washington Certification #: C486*
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01
USDA Permit #: P330-19-00208
*Please Note: Applicable air certifications are denoted with an asterisk (*).

Pace Analytical Services, LLC - Duluth MN

4730 Oneota Street, Duluth, MN 55807
Minnesota Certification #: 027-137-152
Minnesota Dept of Ag Approval: via Minnesota 027-137-152
Minnesota Petrofund Registration #: 1240
Montana Certification #: CERT0102
Nevada Certification #: MN00037
North Dakota Certification #: R-105
Wisconsin Certification #: 999446800
Wisconsin Dept of Ag Certification: 480341

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: Sediment
Pace Project No.: 10631212

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10631212001	**Sample 1-(Upstream)**	Solid	10/26/22 10:30	10/26/22 12:00
10631212002	**Sample 2-(Downstream)**	Solid	10/26/22 10:31	10/26/22 12:00

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: Sediment
Pace Project No.: 10631212

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10631212001	**Sample 1-(Upstream)**	EPA 365.1	DS3	1	PASI-DU
		EPA 6010D	IP	2	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E by SIM	SP2	18	PASI-M
		EPA 8270E by SIM	KJ3	39	PASI-M
10631212002	**Sample 2-(Downstream)**	EPA 365.1	DS3	1	PASI-DU
		EPA 6010D	IP	2	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E by SIM	SP2	18	PASI-M
		EPA 8270E by SIM	KJ3	39	PASI-M

PASI-DU = Pace Analytical Services - Duluth, MN
PASI-M = Pace Analytical Services - Minneapolis

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Sediment
Pace Project No.: 10631212

Sample: Sample 1-(Upstream) **Lab ID: 10631212001** Collected: 10/26/22 10:30 Received: 10/26/22 12:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
365.1 Phos, Total Solids DU	Analytical Method: EPA 365.1 Preparation Method: SM 4500-P B Pace Analytical Services - Duluth, MN							
Phosphorus	**2630**	mg/kg	38.0	5	11/02/22 15:10	11/03/22 16:25	7723-14-0	P6
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Minneapolis							
Arsenic	**16.9**	mg/kg	2.8	1	11/02/22 16:58	11/03/22 13:39	7440-38-2	
Copper	**17.1**	mg/kg	1.4	1	11/02/22 16:58	11/03/22 13:39	7440-50-8	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974 Pace Analytical Services - Minneapolis							
Percent Moisture	**66.4**	%	0.10	1		10/31/22 15:20		N2
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Minneapolis							
Acenaphthene	ND	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	83-32-9	
Acenaphthylene	ND	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	208-96-8	
Anthracene	**35.0**	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	120-12-7	
Benzo(a)anthracene	**108**	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	56-55-3	
Benzo(a)pyrene	**117**	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	50-32-8	
Benzo(b)fluoranthene	**162**	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	205-99-2	
Benzo(g,h,i)perylene	**89.4**	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	191-24-2	
Benzo(k)fluoranthene	**66.9**	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	207-08-9	
Chrysene	**120**	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	53-70-3	
Fluoranthene	**236**	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	206-44-0	
Fluorene	ND	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	86-73-7	
Indeno(1,2,3-cd)pyrene	**95.7**	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	193-39-5	
Naphthalene	ND	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	91-20-3	
Phenanthrene	**103**	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	85-01-8	
Pyrene	**174**	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	77	%.	59-125	1	10/27/22 09:53	10/28/22 20:56	321-60-8	
p-Terphenyl-d14 (S)	82	%.	65-125	1	10/27/22 09:53	10/28/22 20:56	1718-51-0	
8270E MSSV CPAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3550C Pace Analytical Services - Minneapolis							
Acenaphthene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	83-32-9	
Acenaphthylene	**35.9**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	208-96-8	
Anthracene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	120-12-7	
Benzo(a)anthracene	**176**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	56-55-3	
Benzo(a)pyrene	**233**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	50-32-8	
Benzo(e)pyrene	**146**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	192-97-2	
Benzo(g,h,i)perylene	**138**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	191-24-2	
Benzofluoranthenes (Total)	**393**	ug/kg	88.7	1	10/28/22 12:48	11/01/22 01:55		N2
Carbazole	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	86-74-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Sediment
Pace Project No.: 10631212

Sample: Sample 1-(Upstream) **Lab ID: 10631212001** Collected: 10/26/22 10:30 Received: 10/26/22 12:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270E MSSV CPAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3550C Pace Analytical Services - Minneapolis							
2-Chloronaphthalene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	91-58-7	
Chrysene	**209**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	218-01-9	
Dibenz(a,h)acridine	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	226-36-8	
Dibenz(a,h)anthracene	**33.0**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	53-70-3	
Dibenz(a,j)acridine	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	224-42-0	
Dibenzo(a,e)pyrene	**78.9**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	192-65-4	
Dibenzo(a,h)pyrene	**43.8**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	189-64-0	
Dibenzo(a,i)pyrene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	189-55-9	
Dibenzo(a,l)pyrene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	191-30-0	
7H-Dibenzo(c,g)carbazole	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	194-59-2	
Dibenzofuran	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	132-64-9	
7,12-Dimethylbenz(a)anthracene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	57-97-6	
Fluoranthene	**365**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	206-44-0	
Fluorene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	86-73-7	
Indeno(1,2,3-cd)pyrene	**143**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	193-39-5	
3-Methylcholanthrene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	56-49-5	
5-Methylchrysene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	3697-24-3	
1-Methylnaphthalene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	90-12-0	
2-Methylnaphthalene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	91-57-6	
Naphthalene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	91-20-3	
5-Nitroacenaphthene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	602-87-9	
6-Nitrochrysene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	7496-02-8	
2-Nitrofluorene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	607-57-8	N2
1-Nitropyrene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	5522-43-0	N2
4-Nitropyrene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	57835-92-4	N2
Perylene	**54.8**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	198-55-0	
Phenanthrene	**120**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	85-01-8	
Pyrene	**331**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	44	%.	43-125	1	10/28/22 12:48	11/01/22 01:55	321-60-8	
p-Terphenyl-d14 (S)	42	%.	40-125	1	10/28/22 12:48	11/01/22 01:55	1718-51-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Sediment
Pace Project No.: 10631212

Sample: Sample 2-(Downstream) **Lab ID: 10631212002** Collected: 10/26/22 10:31 Received: 10/26/22 12:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
365.1 Phos, Total Solids DU	Analytical Method: EPA 365.1 Preparation Method: SM 4500-P B Pace Analytical Services - Duluth, MN							
Phosphorus	**2520**	mg/kg	47.2	5	11/02/22 15:10	11/03/22 16:29	7723-14-0	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Minneapolis							
Arsenic	**16.2**	mg/kg	3.8	1	11/02/22 16:58	11/03/22 13:50	7440-38-2	
Copper	**17.9**	mg/kg	1.9	1	11/02/22 16:58	11/03/22 13:50	7440-50-8	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974 Pace Analytical Services - Minneapolis							
Percent Moisture	**74.6**	%	0.10	1		10/31/22 15:21		N2
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Minneapolis							
Acenaphthene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	83-32-9	
Acenaphthylene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	208-96-8	
Anthracene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	120-12-7	
Benzo(a)anthracene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	56-55-3	
Benzo(a)pyrene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	50-32-8	
Benzo(b)fluoranthene	**65.7**	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	207-08-9	
Chrysene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	53-70-3	
Fluoranthene	**161**	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	206-44-0	
Fluorene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	193-39-5	
Naphthalene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	91-20-3	
Phenanthrene	**121**	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	85-01-8	
Pyrene	**103**	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	77	%.	59-125	1	10/27/22 09:53	10/28/22 21:19	321-60-8	
p-Terphenyl-d14 (S)	79	%.	65-125	1	10/27/22 09:53	10/28/22 21:19	1718-51-0	
8270E MSSV CPAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3550C Pace Analytical Services - Minneapolis							
Acenaphthene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	83-32-9	
Acenaphthylene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	208-96-8	
Anthracene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	120-12-7	
Benzo(a)anthracene	**123**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	56-55-3	
Benzo(a)pyrene	**141**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	50-32-8	
Benzo(e)pyrene	**92.6**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	192-97-2	
Benzo(g,h,i)perylene	**91.1**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	191-24-2	
Benzofluoranthenes (Total)	**245**	ug/kg	117	1	10/28/22 12:48	11/04/22 15:05		N2
Carbazole	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	86-74-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Sediment
Pace Project No.: 10631212

Sample: Sample 2-(Downstream) **Lab ID: 10631212002** Collected: 10/26/22 10:31 Received: 10/26/22 12:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270E MSSV CPAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3550C Pace Analytical Services - Minneapolis							
2-Chloronaphthalene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	91-58-7	
Chrysene	**137**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	218-01-9	
Dibenz(a,h)acridine	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	226-36-8	
Dibenz(a,h)anthracene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	53-70-3	
Dibenz(a,j)acridine	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	224-42-0	
Dibenzo(a,e)pyrene	**296**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	192-65-4	
Dibenzo(a,h)pyrene	**417**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	189-64-0	
Dibenzo(a,i)pyrene	**211**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	189-55-9	
Dibenzo(a,l)pyrene	**83.1**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	191-30-0	
7H-Dibenzo(c,g)carbazole	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	194-59-2	
Dibenzofuran	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	132-64-9	
7,12-Dimethylbenz(a)anthracene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	57-97-6	
Fluoranthene	**269**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	206-44-0	
Fluorene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	86-73-7	
Indeno(1,2,3-cd)pyrene	**93.5**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	193-39-5	
3-Methylcholanthrene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	56-49-5	
5-Methylchrysene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	3697-24-3	
1-Methylnaphthalene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	90-12-0	
2-Methylnaphthalene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	91-57-6	
Naphthalene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	91-20-3	
5-Nitroacenaphthene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	602-87-9	
6-Nitrochrysene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	7496-02-8	v1
2-Nitrofluorene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	607-57-8	N2
1-Nitropyrene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	5522-43-0	N2,v1
4-Nitropyrene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	57835-92-4	N2,v1
Perylene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	198-55-0	
Phenanthrene	**126**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	85-01-8	
Pyrene	**234**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	45	%.	43-125	1	10/28/22 12:48	11/04/22 15:05	321-60-8	
p-Terphenyl-d14 (S)	42	%.	40-125	1	10/28/22 12:48	11/04/22 15:05	1718-51-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Sediment
Pace Project No.: 10631212

QC Batch: 850971
QC Batch Method: SM 4500-P B
Analysis Method: EPA 365.1
Analysis Description: 3651 Phos, Total Solids DU
Laboratory: Pace Analytical Services - Duluth, MN
Associated Lab Samples: 10631212001, 10631212002

METHOD BLANK: 4500182 Matrix: Solid
Associated Lab Samples: 10631212001, 10631212002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phosphorus	mg/kg	ND	2.5	11/03/22 15:13	

LABORATORY CONTROL SAMPLE: 4500183

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/kg	25	26.9	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4500184 4500185

Parameter	Units	10631027003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphorus	mg/kg	221	1370	1340	1770	1700	113	110	80-120	4	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4500186 4500187

Parameter	Units	10631212001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphorus	mg/kg	2630	289	301	3050	3030	144	134	80-120	0	10	P6

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Sediment
Pace Project No.: 10631212

QC Batch: 849768
QC Batch Method: EPA 3050B
Analysis Method: EPA 6010D
Analysis Description: 6010D Solids
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10631212001, 10631212002

METHOD BLANK: 4494238 Matrix: Solid
Associated Lab Samples: 10631212001, 10631212002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	ND	0.92	11/03/22 13:35	
Copper	mg/kg	ND	0.46	11/03/22 13:35	

LABORATORY CONTROL SAMPLE: 4494239

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	49.7	45.9	92	80-120	
Copper	mg/kg	49.7	49.1	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4494240 4494241

Parameter	Units	10631212001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	16.9	139	147	130	136	81	81	75-125	5	20	
Copper	mg/kg	17.1	139	147	149	156	95	95	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Sediment
Pace Project No.: 10631212

QC Batch: 850300
QC Batch Method: ASTM D2974
Analysis Method: ASTM D2974
Analysis Description: Dry Weight / %M by ASTM D2974
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10631212001, 10631212002

SAMPLE DUPLICATE: 4497118

Parameter	Units	10631212001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	66.4	63.9	4	30	N2

SAMPLE DUPLICATE: 4497772

Parameter	Units	10631503001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	32.2	32.1	1	30	N2

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Sediment
Pace Project No.: 10631212

QC Batch: 849669
QC Batch Method: EPA 3546
Analysis Method: EPA 8270E by SIM
Analysis Description: 8270E Solid PAH by SIM MSSV
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10631212001, 10631212002

METHOD BLANK: 4493725 Matrix: Solid
Associated Lab Samples: 10631212001, 10631212002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	ND	10.0	10/28/22 11:01	
Acenaphthylene	ug/kg	ND	10.0	10/28/22 11:01	
Anthracene	ug/kg	ND	10.0	10/28/22 11:01	
Benzo(a)anthracene	ug/kg	ND	10.0	10/28/22 11:01	
Benzo(a)pyrene	ug/kg	ND	10.0	10/28/22 11:01	
Benzo(b)fluoranthene	ug/kg	ND	10.0	10/28/22 11:01	
Benzo(g,h,i)perylene	ug/kg	ND	10.0	10/28/22 11:01	
Benzo(k)fluoranthene	ug/kg	ND	10.0	10/28/22 11:01	
Chrysene	ug/kg	ND	10.0	10/28/22 11:01	
Dibenz(a,h)anthracene	ug/kg	ND	10.0	10/28/22 11:01	
Fluoranthene	ug/kg	ND	10.0	10/28/22 11:01	
Fluorene	ug/kg	ND	10.0	10/28/22 11:01	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	10.0	10/28/22 11:01	
Naphthalene	ug/kg	ND	10.0	10/28/22 11:01	
Phenanthrene	ug/kg	ND	10.0	10/28/22 11:01	
Pyrene	ug/kg	ND	10.0	10/28/22 11:01	
2-Fluorobiphenyl (S)	%.	70	59-125	10/28/22 11:01	
p-Terphenyl-d14 (S)	%.	82	65-125	10/28/22 11:01	

LABORATORY CONTROL SAMPLE: 4493726

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	100	90.0	90	60-125	
Acenaphthylene	ug/kg	100	87.9	88	59-125	
Anthracene	ug/kg	100	91.6	92	62-125	
Benzo(a)anthracene	ug/kg	100	87.4	87	64-125	
Benzo(a)pyrene	ug/kg	100	86.2	86	64-125	
Benzo(b)fluoranthene	ug/kg	100	90.1	90	65-125	
Benzo(g,h,i)perylene	ug/kg	100	102	102	66-125	
Benzo(k)fluoranthene	ug/kg	100	92.5	92	66-125	
Chrysene	ug/kg	100	84.5	85	66-125	
Dibenz(a,h)anthracene	ug/kg	100	103	103	67-125	
Fluoranthene	ug/kg	100	83.5	84	65-125	
Fluorene	ug/kg	100	91.5	92	60-125	
Indeno(1,2,3-cd)pyrene	ug/kg	100	102	102	64-125	
Naphthalene	ug/kg	100	75.3	75	48-125	
Phenanthrene	ug/kg	100	83.9	84	62-125	
Pyrene	ug/kg	100	87.0	87	68-125	
2-Fluorobiphenyl (S)	%.			74	59-125	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Sediment
Pace Project No.: 10631212

LABORATORY CONTROL SAMPLE: 4493726

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
p-Terphenyl-d14 (S)	%.			78	65-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4493727 4493728

Parameter	Units	10631245001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acenaphthene	ug/kg	ND	102	102	85.3	74.2	84	73	70-125	14	30	
Acenaphthylene	ug/kg	ND	102	102	83.9	73.2	82	72	30-150	14	30	
Anthracene	ug/kg	ND	102	102	99.3	87.7	98	86	67-125	12	30	
Benzo(a)anthracene	ug/kg	ND	102	102	99.0	88.3	97	86	64-125	11	30	
Benzo(a)pyrene	ug/kg	ND	102	102	102	90.7	100	89	40-137	11	30	
Benzo(b)fluoranthene	ug/kg	ND	102	102	105	94.3	104	92	30-150	11	30	
Benzo(g,h,i)perylene	ug/kg	ND	102	102	119	107	117	104	69-125	11	30	
Benzo(k)fluoranthene	ug/kg	ND	102	102	110	98.0	108	96	48-133	11	30	
Chrysene	ug/kg	ND	102	102	97.7	93.9	96	92	62-125	4	30	
Dibenz(a,h)anthracene	ug/kg	ND	102	102	119	105	117	103	57-125	13	30	
Fluoranthene	ug/kg	ND	102	102	99.8	90.9	98	89	60-125	9	30	
Fluorene	ug/kg	ND	102	102	91.1	80.8	90	79	53-125	12	30	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	102	102	118	106	116	104	49-130	10	30	
Naphthalene	ug/kg	ND	102	102	79.8	65.5	78	64	46-125	20	30	
Phenanthrene	ug/kg	ND	102	102	84.8	73.7	83	72	61-125	14	30	
Pyrene	ug/kg	ND	102	102	97.0	87.2	95	85	58-125	11	30	
2-Fluorobiphenyl (S)	%.						71	60	59-125			
p-Terphenyl-d14 (S)	%.						88	77	65-125			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Sediment
Pace Project No.: 10631212

QC Batch: 850008
QC Batch Method: EPA 3550C
Analysis Method: EPA 8270E by SIM
Analysis Description: 8270E CPAH by SIM MSSV
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10631212001, 10631212002

METHOD BLANK: 4495364 Matrix: Solid
Associated Lab Samples: 10631212001, 10631212002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	ND	10.0	11/01/22 00:55	
1-Nitropyrene	ug/kg	ND	10.0	11/01/22 00:55	N2
2-Chloronaphthalene	ug/kg	ND	10.0	11/01/22 00:55	
2-Methylnaphthalene	ug/kg	ND	10.0	11/01/22 00:55	
2-Nitrofluorene	ug/kg	ND	10.0	11/01/22 00:55	N2
3-Methylcholanthrene	ug/kg	ND	10.0	11/01/22 00:55	
4-Nitropyrene	ug/kg	ND	10.0	11/01/22 00:55	N2
5-Methylchrysene	ug/kg	ND	10.0	11/01/22 00:55	
5-Nitroacenaphthene	ug/kg	ND	10.0	11/01/22 00:55	
6-Nitrochrysene	ug/kg	ND	10.0	11/01/22 00:55	
7,12-Dimethylbenz(a)anthracene	ug/kg	ND	10.0	11/01/22 00:55	
7H-Dibenzo(c,g)carbazole	ug/kg	ND	10.0	11/01/22 00:55	
Acenaphthene	ug/kg	ND	10.0	11/01/22 00:55	
Acenaphthylene	ug/kg	ND	10.0	11/01/22 00:55	
Anthracene	ug/kg	ND	10.0	11/01/22 00:55	
Benzo(a)anthracene	ug/kg	ND	10.0	11/01/22 00:55	
Benzo(a)pyrene	ug/kg	ND	10.0	11/01/22 00:55	
Benzo(e)pyrene	ug/kg	ND	10.0	11/01/22 00:55	
Benzo(g,h,i)perylene	ug/kg	ND	10.0	11/01/22 00:55	
Benzofluoranthenes (Total)	ug/kg	ND	30.0	11/01/22 00:55	N2
Carbazole	ug/kg	ND	10.0	11/01/22 00:55	
Chrysene	ug/kg	ND	10.0	11/01/22 00:55	
Dibenz(a,h)acridine	ug/kg	ND	10.0	11/01/22 00:55	
Dibenz(a,h)anthracene	ug/kg	ND	10.0	11/01/22 00:55	
Dibenz(a,j)acridine	ug/kg	ND	10.0	11/01/22 00:55	
Dibenzo(a,e)pyrene	ug/kg	ND	10.0	11/01/22 00:55	
Dibenzo(a,h)pyrene	ug/kg	ND	10.0	11/01/22 00:55	
Dibenzo(a,i)pyrene	ug/kg	ND	10.0	11/01/22 00:55	
Dibenzo(a,l)pyrene	ug/kg	ND	10.0	11/01/22 00:55	
Dibenzofuran	ug/kg	ND	10.0	11/01/22 00:55	
Fluoranthene	ug/kg	ND	10.0	11/01/22 00:55	
Fluorene	ug/kg	ND	10.0	11/01/22 00:55	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	10.0	11/01/22 00:55	
Naphthalene	ug/kg	ND	10.0	11/01/22 00:55	
Perylene	ug/kg	ND	10.0	11/01/22 00:55	
Phenanthrene	ug/kg	ND	10.0	11/01/22 00:55	
Pyrene	ug/kg	ND	10.0	11/01/22 00:55	
2-Fluorobiphenyl (S)	%.	70	43-125	11/01/22 00:55	
p-Terphenyl-d14 (S)	%.	94	40-125	11/01/22 00:55	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Sediment
Pace Project No.: 10631212

LABORATORY CONTROL SAMPLE: 4495365

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	100	75.9	76	52-125	
1-Nitropyrene	ug/kg	100	83.0	83	30-131	N2
2-Chloronaphthalene	ug/kg	100	82.6	83	54-125	
2-Methylnaphthalene	ug/kg	100	76.7	77	52-125	
2-Nitrofluorene	ug/kg	100	94.0	94	60-132	N2
3-Methylcholanthrene	ug/kg	100	86.5	86	30-131	
4-Nitropyrene	ug/kg	100	87.1	87	42-135	N2
5-Methylchrysene	ug/kg	100	88.2	88	63-125	
5-Nitroacenaphthene	ug/kg	100	77.5	77	60-128	
6-Nitrochrysene	ug/kg	100	98.3	98	30-143	
7,12-Dimethylbenz(a)anthracene	ug/kg	100	108	108	30-125	
7H-Dibenzo(c,g)carbazole	ug/kg	100	90.8	91	69-125	
Acenaphthene	ug/kg	100	79.7	80	59-125	
Acenaphthylene	ug/kg	100	79.3	79	56-125	
Anthracene	ug/kg	100	86.2	86	62-125	
Benzo(a)anthracene	ug/kg	100	84.5	85	60-125	
Benzo(a)pyrene	ug/kg	100	96.7	97	67-125	
Benzo(e)pyrene	ug/kg	100	99.9	100	64-125	
Benzo(g,h,i)perylene	ug/kg	100	94.7	95	39-129	
Benzofluoranthenes (Total)	ug/kg	300	313	104	67-125	N2
Carbazole	ug/kg	100	84.3	84	66-125	
Chrysene	ug/kg	100	90.0	90	60-125	
Dibenz(a,h)acridine	ug/kg	100	90.9	91	66-125	
Dibenz(a,h)anthracene	ug/kg	100	93.9	94	66-125	
Dibenz(a,j)acridine	ug/kg	100	82.6	83	30-133	
Dibenzo(a,e)pyrene	ug/kg	100	85.4	85	57-125	
Dibenzo(a,h)pyrene	ug/kg	100	96.7	97	59-126	
Dibenzo(a,i)pyrene	ug/kg	100	84.2	84	45-125	
Dibenzo(a,l)pyrene	ug/kg	100	71.0	71	30-125	
Dibenzofuran	ug/kg	100	82.7	83	61-125	
Fluoranthene	ug/kg	100	80.7	81	66-125	
Fluorene	ug/kg	100	83.0	83	63-125	
Indeno(1,2,3-cd)pyrene	ug/kg	100	90.2	90	67-125	
Naphthalene	ug/kg	100	74.3	74	50-125	
Perylene	ug/kg	100	94.3	94	69-125	
Phenanthrene	ug/kg	100	85.0	85	67-125	
Pyrene	ug/kg	100	100	100	62-125	
2-Fluorobiphenyl (S)	%.			84	43-125	
p-Terphenyl-d14 (S)	%.			103	40-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4495366 4495367

Parameter	Units	10631442001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	ug/kg	76.7	127	128	228	235	119	124	37-125	3	30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Sediment
Pace Project No.: 10631212

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4495366 4495367

Parameter	Units	10631442001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Nitropyrene	ug/kg	<16.5	127	128	151	139	118	109	30-131	8	30	N2
2-Chloronaphthalene	ug/kg	<10.2	127	128	118	136	93	106	48-125	14	30	
2-Methylnaphthalene	ug/kg	43.6J	127	128	172	182	101	108	40-125	5	30	
2-Nitrofluorene	ug/kg	<6.8	127	128	1400	1570	1100	1230	30-150	11	30	M1,N2
3-Methylcholanthrene	ug/kg	<9.0	127	128	270	276	212	216	30-131	2	30	M1
4-Nitropyrene	ug/kg	<15.4	127	128	ND	ND	0	0	30-135		30	M1,N2
5-Methylchrysene	ug/kg	1220	127	128	1720	1680	392	359	30-150	2	30	M1
5-Nitroacenaphthene	ug/kg	<21.6	127	128	185	255	145	199	30-150	32	30	M1,R1
6-Nitrochrysene	ug/kg	<14.3	127	128	ND	ND	0	0	30-143		30	M1
7,12-Dimethylbenz(a)anthracene	ug/kg	347	127	128	630	718	222	291	30-145	13	30	M1
7H-Dibenzo(c,g)carbazole	ug/kg	242	127	128	469	501	179	203	30-125	6	30	M1
Acenaphthene	ug/kg	367	127	128	586	728	172	282	30-139	22	30	M1
Acenaphthylene	ug/kg	70.6	127	128	230	258	125	147	30-125	11	30	M1
Anthracene	ug/kg	1200	127	128	1540	2240	264	813	30-150	37	30	M1,R1
Benzo(a)anthracene	ug/kg	5790	127	128	6480	7810	540	1580	30-150	19	30	M1
Benzo(a)pyrene	ug/kg	6960	127	128	8490	9130	1200	1700	30-150	7	30	M1
Benzo(e)pyrene	ug/kg	7490	127	128	8190	8630	549	891	30-150	5	30	M1
Benzo(g,h,i)perylene	ug/kg	7440	127	128	8120	8770	535	1030	30-150	8	30	M1
Benzofluoranthenes (Total)	ug/kg	14200	382	384	16800	17000	678	747	30-150	2	30	M1,N2
Carbazole	ug/kg	846	127	128	1330	1490	381	503	30-150	11	30	M1
Chrysene	ug/kg	8920	127	128	10300	10700	1070	1420	30-150	4	30	M1
Dibenz(a,h)acridine	ug/kg	<3.9	127	128	676	736	531	576	30-125	8	30	M1
Dibenz(a,h)anthracene	ug/kg	1290	127	128	1840	1970	432	527	30-146	6	30	M1
Dibenz(a,j)acridine	ug/kg	<14.5	127	128	284	322	223	252	30-133	13	30	M1
Dibenzo(a,e)pyrene	ug/kg	2530	127	128	3620	3790	858	989	30-125	5	30	M1
Dibenzo(a,h)pyrene	ug/kg	1400	127	128	1980	2020	457	489	30-126	2	30	M1
Dibenzo(a,i)pyrene	ug/kg	333	127	128	363	341	24	6	30-125	6	30	M1
Dibenzo(a,l)pyrene	ug/kg	177	127	128	360	367	144	149	30-125	2	30	M1
Dibenzofuran	ug/kg	69.1	127	128	202	230	104	126	43-125	13	30	M1
Fluoranthene	ug/kg	13100	127	128	14000	16100	691	2370	30-150	14	30	M1
Fluorene	ug/kg	575	127	128	814	1090	188	405	30-147	29	30	M1
Indeno(1,2,3-cd)pyrene	ug/kg	6110	127	128	6920	7110	635	784	30-150	3	30	M1
Naphthalene	ug/kg	15.3J	127	128	126	133	87	92	37-125	5	30	
Perylene	ug/kg	1540	127	128	2150	2330	482	618	30-150	8	30	M1
Phenanthrene	ug/kg	10600	127	128	10100	12600	-366	1570	30-150	22	30	M1
Pyrene	ug/kg	17800	127	128	16900	18900	-687	911	30-150	11	30	M1
2-Fluorobiphenyl (S)	%.						99	109	43-125			P3
p-Terphenyl-d14 (S)	%.						107	108	40-125			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: Sediment
Pace Project No.: 10631212

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P3	Sample extract could not be concentrated to the routine final volume, resulting in elevated reporting limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
R1	RPD value was outside control limits.
v1	The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Sediment
Pace Project No.: 10631212

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10631212001	**Sample 1-(Upstream)**	SM 4500-P B	850971	EPA 365.1	851064
10631212002	**Sample 2-(Downstream)**	SM 4500-P B	850971	EPA 365.1	851064
10631212001	**Sample 1-(Upstream)**	EPA 3050B	849768	EPA 6010D	851188
10631212002	**Sample 2-(Downstream)**	EPA 3050B	849768	EPA 6010D	851188
10631212001	**Sample 1-(Upstream)**	ASTM D2974	850300		
10631212002	**Sample 2-(Downstream)**	ASTM D2974	850300		
10631212001	**Sample 1-(Upstream)**	EPA 3546	849669	EPA 8270E by SIM	849951
10631212002	**Sample 2-(Downstream)**	EPA 3546	849669	EPA 8270E by SIM	849951
10631212001	**Sample 1-(Upstream)**	EPA 3550C	850008	EPA 8270E by SIM	850506
10631212002	**Sample 2-(Downstream)**	EPA 3550C	850008	EPA 8270E by SIM	850506

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix

WO# : 10631212

10631212

ALL SH

Company: EOR	Billing Information:
Address: 1919 University Ave W Suite 300	
Report To: Brian Rucker	Email To: BRucker@EORinc.com
Copy To: —	Site Collection Info/Address:
Customer Project Name/Number: —	State: / County/City: Time Zone Collected: [ ] PT [ ] MT [ ] CT [ ] ET
Phone: Email: 651-890-9495	Site/Facility ID #: Compliance Monitoring? [ ] Yes [ ] No
Collected By (print): Brian Rucker	Purchase Order #: Quote #: DW PWS ID #: DW Location Code:
Collected By (signature):	Turnaround Date Required: Immediately Packed on Ice: [ ] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) Field Filtered (if applicable): [ ] Yes [ ] No Analysis: _____

Container Preservative Type | Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	Analyses	Lab Profile/Line:
X										

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips: _____	
Sample pH Acceptable	Y N NA
pH Strips: _____	
Sulfide Present	Y N NA
Lead Acetate Strips: _____	

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2855440

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: (Y) N NA
Therm ID#: 17
Cooler 1 Temp Upon Receipt: 14.6 oC
Cooler 1 Therm Corr. Factor: -0.0 oC
Cooler 1 Corrected Temp: 14.6 oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
		PACE	10/26/22 12:00
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: _____ of: _____

Sample Condition Upon Receipt

Client Name: EOR

Project #: WO#: 10631212
PM: Y01 Due Date: 11/09/22
CLIENT: EOR

Courier: ☐ FedEx ☐ UPS ☐ USPS ☒ Client ☐ Pace ☐ SpeeDee ☐ Commercial

Tracking Number: _____ ☐ See Exceptions ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☒ No **Biological Tissue Frozen?** ☐ Yes ☐ No ☒ N/A

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other **Temp Blank?** ☒ Yes ☐ No

Thermometer: ☐ T1 (0461) ☐ T2 (1336) ☐ T3 (0459) ☐ T4 (0254) ☐ T5 (0178) ☐ T6 (0235) ☒ T7 (0042) ☐ T8 (0775) ☐ 01339252/1710

Type of Ice: ☐ Wet ☐ Blue ☐ Dry ☒ None ☐ Melted

Did Samples Originate in West Virginia? ☐ Yes ☒ No **Were All Container Temps Taken?** ☐ Yes ☐ No ☒ N/A

Temp should be above freezing to 6 °C **Cooler temp Read w/Temp Blank:** 14.6 °C

Correction Factor: TRUE **Cooler Temp Corrected w/temp blank:** 14.6 °C

Average Corrected Temp (no temp blank only): _____ °C ☐ See Exceptions ENV-FRM-MIN4-0142 ☐ 1 Container

USDA Regulated Soil: (☒ N/A, water sample/other: _____) **Date/Initials of Person Examining Contents:** JM 10/26/22

Did samples originate in a quarantine zone within the United States: AL, AR, AZ CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

Location (Check one): ☐ Duluth ☒ Minneapolis ☐ Virginia				**COMMENTS**
Chain of Custody Present and Filled Out?	☒ Yes	☐ No		1.
Chain of Custody Relinquished?	☒ Yes	☐ No		2.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	3.
Samples Arrived within Hold Time?	☒ Yes	☐ No		4. If fecal: ☐ <8 hrs ☐ >8 hr, <24 ☐ No
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No		5. ☐ Fecal Coliform ☐ HPC ☐ Total Coliform/E.coli ☐ BOD/cBOD ☐ Hex Chrom ☐ Turbidity ☐ Nitrate ☐ Nitrite ☐ Orthophos ☐ Other
Rush Turn Around Time Requested?	☐ Yes	☒ No		6.
Sufficient Sample Volume?	☒ Yes	☐ No		7.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	8.
-Pace Containers Used?	☒ Yes	☐ No		
Containers Intact?	☒ Yes	☐ No		9.
Field Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	10. Is sediment visible in the dissolved container? ☐ Yes ☐ No
Is sufficient information available to reconcile the samples to the COC? Matrix: ☒ Water ☐ Soil ☐ Oil ☐ Other	☒ Yes	☐ No		11. **If no, write ID/Date/Time of container below:** ☐ See Exceptions ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☒ N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO3, H2SO4, <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	☐ Yes	☐ No	☒ N/A	☐ NaOH ☐ HNO3 ☐ H2SO4 ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxins/PFAS (*If adding preservative to a container, it must be added to associated field and equipment blanks--verify with PM first.)	☐ Yes	☐ No	☒ N/A	Positive for Residual Chlorine? ☐ Yes ☐ No ☐ See Exceptions ENV-FRM-MIN4-0142 **pH Paper Lot #**
				Residual Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Headspace in Methyl Mercury Container?	☐ Yes	☐ No	☒ N/A	13.
Extra labels present on soil VOA or WIDRO containers?	☐ Yes	☐ No	☒ N/A	14. ☐ See Exceptions ENV-FRM-MIN4-0142
Headspace in VOA Vials (greater than 6mm)?	☐ Yes	☐ No	☒ N/A	
3 Trip Blanks Present?	☐ Yes	☐ No	☒ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Brian Rucker Date/Time: 10/26/2022

Comments/Resolution: Contacted client to confirm dates/times/requested tests. Tests on Quote all confirmed is needed. Also notified of OOT samples.

Project Manager Review: Yeng Ozawa **Date:** 10/27/2022

NOTE: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled By: JM **Line:** 2

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-MIN4-0142 v02_Sample Condition Upon Receipt (SCUR) Exception Form
	Effective Date: 09/22/2022

Workorder #: _____

No Temp Blank		
Read Temp	Corrected Temp	Average temp

PM Notified of Out of Temp Cooler? ☐ Yes ☐ No

If yes, indicate who was contacted, date and time.
If no, indicate reason why.

_____

Multiple Cooler Project? ☐ Yes ☐ No

If anything is OVER 6.0° C, you MUST document containers in this section HERE

Sample ID not on COC

Tracking Number	Temperature

Out of Temp Sample ID	Container Type	# of Containers
Sample 1 (upstream)	6N	1
Sample 2 - (Downstream)	6N	1

pH Adjustment Log for Preserved Samples

Sample ID	Type Of Preserve	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance After Addition?		Initials
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	

Comments:

_____

_____

_____

Qualtrax ID: 52763

1700 Elm Street SE
Minneapolis, MN 55414
Phone: 612-607-1700
Fax: 612-607-6444

Quote Prepared for:

EOR
1919 University Ave WSuite 300
St. Paul, MN 55104

Stu Grubb
(651) 351-1614
grubbss@aol.com

Pace® Contact Information

Account Executive
Jeff Smith
jeff.smith@pacelabs.com

Project Manager

Project Information

Quote Name	00125007 - EOR_sediment analysis_101822	Created Date	10/18/2022
Quote Number	00125007	Expiration Date	12/30/2022
Standard TAT:	10 Business Days	Report Level	II
Project Location	MN		

Minimum Laboratory Fee

$200

Quote Details

Quantity	Method	Matrix	Product	Line Item Description	Sales Price	Sub-Total	Total-Price
2.00	EPA 6010B (ICP)	Solid Only	Arsenic (As)-Each addt'l metal		$20.00	$40.00	$40.00
2.00	EPA 6010B/ 200.7 (ICP)	Solid Only	Copper (Cu)-Each addt'l metal		$20.00	$40.00	$40.00
2.00	EPA 8270SIM	Solid Only	Polynuclear Aromatic Hydrocarbons (PAH) (low level) (soil)		$135.00	$270.00	$270.00
2.00	EPA 8270SIM (cPAH)	Solid Only	Polynuclear Aromatic Hydrocarbons (cPAH) (low level) (soil)		$230.00	$460.00	$460.00
2.00	EPA 365.2	Solid Only	Phosphorus, Total (soil)		$30.00	$60.00	$60.00
2.00	SM 2540G	Solid Only	Percent (%) Moisture/Dry Weight		$5.00	$10.00	$10.00
1.00			Environmental Impact Fee (Per Invoice)		$20.00	$20.00	$20.00
2.00	N/A		Sample Disposal	per sample	$5.00	$10.00	$10.00

Grand-Total	$910.00
Estimated Economic Price Adjustment	$78.26
Grand Total with Surcharge	$988.26

Intra-Regional Chain of Custody

WO#: 10631212

PM: YO1 Due Date: 11/09/22
CLIENT: EOR

Workorder: 10631212 **Workorder Name:** Sediment **Owner Received Date:** 10/26/2022 Due Date: 11/9/2022

Received at:	Send To Lab:
Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700	Pace Analytical Duluth 4730 Oneota St. Duluth, MN 55807 Phone (218) 727-6380

Report To:
Yeng Ozawa

JGFU

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Other	EPA 365.1	LAB USE ONLY
1	Sample 1-(Upstream)	PS	10/26/2022 10:30	10631212001	Solid	1	X	
2	Sample 2-(Downstream)	PS	10/26/2022 10:31	10631212002	Solid	1	X	
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	CSM/Pace	10/27/22 10:30	[signature]	10/27/22 1105
2	[signature] 10/27/22	1445	[signature]	10/27/22 1445
3				
4				

Comments

Cooler Temperature on Receipt 1.9 °C **Custody Seal** (Y) or N **Received on Ice** (Y) or N **Samples Intact** (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

DC#_Title: ENV-FRM-MIN4-0150 v10_Sample Condition Upon Receipt (SCUR)
Effective Date:

Sample Condition Upon Receipt | **Client Name:** Pace | **Project #:** WO#: 10631212

Courier: ☐ FedEx ☐ UPS ☐ USPS ☐ Client ☒ Pace ☐ SpeeDee ☐ Commercial

☐ See Exceptions ENV-FRM-MIN4-0142

Tracking Number: _____

Custody Seal on Cooler/Box Present? ☒ Yes ☐ No **Seals Intact?** ☒ Yes ☐ No **Biological Tissue Frozen?** ☐ Yes ☐ No ☒ N/A

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other **Temp Blank?** ☒ Yes ☐ No

Thermometer: ☐ T1 (0461) ☐ T2 (1336) ☐ T3 (0459) ☐ T4 (0254) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☒ 01339252/1710 **Type of Ice:** ☒ Wet ☐ Blue ☐ Dry ☐ None ☐ Melted

Did Samples Originate in West Virginia? ☐ Yes ☒ No **Were All Container Temps Taken?** ☐ Yes ☐ No ☒ N/A

Temp should be above freezing to 6 °C **Cooler temp Read w/Temp Blank:** 1.8 °C

Correction Factor: +0.1 **Cooler Temp Corrected w/temp blank:** 1.9 °C

Average Corrected Temp (no temp blank only): _____ °C

☐ See Exceptions ENV-FRM-MIN4-0142 ☐ 1 Container

USDA Regulated Soil: (☒ N/A, water sample/other: _____)

Date/Initials of Person Examining Contents: 10/27/22 KB

Did samples originate in a quarantine zone within the United States: AL, AR, AZ CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check maps)? ☐ Yes ☒ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

Location (Check one): ☒ Duluth ☐ Minneapolis ☐ Virginia				**COMMENTS**
Chain of Custody Present and Filled Out?	☒ Yes	☐ No		1.
Chain of Custody Relinquished?	☒ Yes	☐ No		2.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	3.
Samples Arrived within Hold Time?	☒ Yes	☐ No		4. If fecal: ☐ <8 hrs ☐ >8 hr, <24 ☐ No
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No		5. ☐ Fecal Coliform ☐ HPC ☐ Total Coliform/E.coli ☐ BOD/cBOD ☐ Hex Chrom ☐ Turbidity ☐ Nitrate ☐ Nitrite ☐ Orthophos ☐ Other _____
Rush Turn Around Time Requested?	☐ Yes	☑ No		6.
Sufficient Sample Volume?	☑ Yes	☐ No		7.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	8.
-Pace Containers Used?	☑ Yes	☐ No		
Containers Intact?	☑ Yes	☐ No		9.
Field Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	10. Is sediment visible in the dissolved container? ☐ Yes ☐ No
Is sufficient information available to reconcile the samples to the COC?	☑ Yes	☐ No		11. **If no, write ID/Date/Time of container below:** ☐ See Exceptions ENV-FRM-MIN4-0142
Matrix: ☐ Water ☑ Soil ☐ Oil ☐ Other				
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☑ N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO3, H2SO4, <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	☐ Yes	☐ No	☑ N/A	☐ NaOH ☐ HNO3 ☐ H2SO4 ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxins/PFAS (*If adding preservative to a container, it must be added to associated field and equipment blanks--verify with PM first.)	☐ Yes	☐ No	☑ N/A	Positive for Residual Chlorine? ☐ Yes ☐ No ☐ See Exceptions ENV-FRM-MIN4-0142
				pH Paper Lot #
				Residual Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Headspace in Methyl Mercury Container?	☐ Yes	☐ No	☑ N/A	13.
Extra labels present on soil VOA or WIDRO containers?	☐ Yes	☐ No	☑ N/A	14. ☐ See Exceptions ENV-FRM-MIN4-0142
Headspace in VOA Vials (greater than 6mm)?	☐ Yes	☐ No	☑ N/A	
3 Trip Blanks Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: Yeng Ozawa **Date:** 10/28/2022

NOTE: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled By: _____ **Line:** _____

memo

Project Name |	Settlers Glen Iron-Enhanced Sand Filter	**Date** |	1/6/2023 *Rev. 1/9/2023*
To / Contact info |	BCWD Board of Managers		
Cc / Contact info |	Karen Kill, BCWD Administrator		
From / Contact info |	Ryan Fleming, PE		
Regarding |	Pump Harvest Pond Maintenance Contractor Recommendation		

The purpose of this memorandum is to provide a recommendation for selecting a contractor to perform maintenance to return the Settlers Glen iron-enhanced sand filter pump harvest pond to the as-built conditions. The work (excavation and disposal of accumulated sediment) is described in Attachment A: Request for Quote Package.

Quote Summary

Based on direction the Board provided at the 8/10/2022 Board Meeting, the following language was included in the RFQ, *"BCWD encourages participation by minority, women, and veteran-owned businesses as prime contractors, and encourages all prime contractors to make a significant commitment to use minority, women, veteran owned and other disadvantaged business entities as subcontractors and suppliers. If applicable, please list any information regarding how these categories of disadvantaged business entities are included in your submission".*

The request for quote was sent to 89 contractors including 54 from the MN Disadvantaged Business Enterprise Program (DBE) database. The DBE is a program for business owners that are socially and economically disadvantaged. The database is keyword searchable and those that offer services that align with the nature of this work were contacted. The veteran owned business directory was also searched but yielded only two excavation contractors. EOR inquired with a local veteran contractor as well as the Veterans of Foreign Wars organization to find out about more comprehensive directories without success. We will continue to seek other avenues to locate veteran owned contractors in the future.

The request for quote package was distributed to contractors on 12/19/2022; seven contractors submitted quotes as summarized in Table 1.

Table 1. Summary of Quotes

COMPANY	DBE/Veteran Owned Response	TOTAL QUOTE
Dimke Excavating, Inc.	*Using MBE Trucking, DBE certified*	$39,471.25
New Look Contracting, Inc.	Willing to consider WBE or MBE trucking if selected	$44,521.00
Rachel Contracting, LLC	Likely that selected trucking firm used is DBE listed	$46,884.10
Rock Leaf Water Environmental, LLC*	Woman-owned business	$49,317.50
Peterson Companies, Inc.	Does not apply to quoted work	$54,895.00
US SiteWork	Certified Small Business	$67,643.00
Shoreline Landscaping	Unknown, no response	$88,258.00
Engineer's Estimate**		$32,000.00

*Rock Leaf Water Environmental was selected for a 2-year contract to conduct underground infrastructure maintenance in the BCWD.

**Engineer's estimate was drafted prior to knowledge of arsenic and PAH concentrations above Soil Reference Values.

Recommendation

EOR recommends the Board consider award of the contract based on the quoted values and the DBE/Veteran owned status shown in Table 1.

Board Action

1. Award the contract for the Settlers Glen Pump Harvest Pond Maintenance at a value of $__,_____ from Account: 948-0000 and approval of the Administrator to enter into contract upon advice of Legal Counsel.

memo

Project Name |	Settlers Glen Pump Harvest Pond	**Date** |	12/19/2022
To / Contact info |	Prospective Contractor		
Cc / Contact info |	Karen Kill, BCWD Administrator		
From / Contact info |	Ryan Fleming, PE		
Regarding |	Pond Maintenance (Dredging)		

Request:

Brown's Creek Watershed District (BCWD) is soliciting competitive quotes for dredging of an existing pump harvest & sediment settling pond located in the Settlers Glen Neighborhood in the City of Stillwater, MN. (Emmons & Olivier Resources is the BCWD engineer.)

The project is generally located near Morgan Avenue North, north of Boutwell Road North and west Neal Avenue North as shown in Figure 1. Work will take place on property owned by the City of Stillwater. Access is established within a cooperative agreement between the BCWD and city of Stillwater, attached hereto as Attachment 1. Laboratory analysis was conducted on sediment samples from the pond collected on November 2, 2022. A laboratory report is included in Attachment 2.

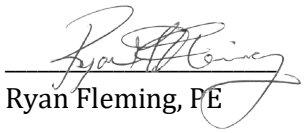
BCWD encourages participation by minority, women, and veteran-owned businesses as prime contractors, and encourages all prime contractors to make a significant commitment to use minority, women, veteran owned and other disadvantaged business entities as subcontractors and suppliers. If applicable, please list any information regarding how these categories apply in your submission.

Quotes must be submitted by email or hand-delivery to Emmons & Olivier Resources at the address below by 5:00 PM January 5, 2023. It is anticipated a contract for the work will be authorized at the BCWD Board meeting on January 11, 2023. The work must be completed by April 30, 2023. The form of the contract to be entered by the selected contractor and the Brown's Creek Watershed District is attached. Respondents must prepare a quote based upon the requirements of the proposed contract and attached site plans, designs and technical specifications. Respondents must furnish a LUMP SUM quote to procure & furnish materials to: mobilize, install erosion & sediment control devices, dewater the pond as necessary to carry out sediment removal, remove sediment in the pond to the specified elevation, dispose of sediment, restore all disturbed areas, and perform all associated work in accordance with the site plans and designs and technical specifications attached as Exhibit A to the form of contract attached hereto. To be selected for the work, a respondent must have prior experience conducting cleanout of stormwater-management facilities and disposing of sediment removed. The lump sum amount provided in response to this request must represent full payment for all costs associated with removal and disposal of all material, debris, and liquids located in the pond, including, but not limited to, materials, labor, permits, insurance, traffic control, disposal fees, flow diversion, dewatering, erosion & sediment control, and the required site restoration. The contractor will procure all licenses, permits and other rights and approvals required for the work including but not limited to city grading and right-of-way permitting. BCWD will obtain approval for the work under the Department of Natural Resources Work in Waters program, and related to the Wetland Conservation Act and the US Army Corps of Engineers.

Unless a party receiving this RFQ package contacts the individual listed below and requests otherwise, the party's name and contact information (only) may be distributed to other interested parties.

If you have any questions regarding this RFQ, please contact Ryan Fleming, PE at 651.203.6034 or rfleming@eorinc.com.

I hereby certify that this request for quotations was prepared by me or under my direct supervision and that I am a duly registered certified engineer under the laws of the State of Minnesota.



Ryan Fleming, PE

Reg. no. 46211

FIGURE 1:

BCWD Pond Maintenance

Settlers Glen Harvest Pond Dredging
Morgan Avenue North, Stillwater, MN

Agreement between
Brown's Creek Watershed District and

_____

Settlers Glen Pump Harvest Pond Dredging

This contract is entered into by the Brown's Creek Watershed District, a public body with powers set forth in Minnesota Statutes chapters 103B and 103D (BCWD), and _____, a private corporation (CONTRACTOR). In consideration of the terms and conditions set forth herein, including mutual consideration, the sufficiency of which is hereby acknowledged, BCWD and CONTRACTOR agree as follows:

1. Scope of Work

CONTRACTOR will procure & furnish materials to: mobilize, install erosion & sediment control devices, dewater the pond as necessary to carry out sediment removal, remove sediment in the pond to the specified elevation, dispose of sediment in accordance with all applicable regulatory requirements, restore all disturbed areas, and perform all associated work in accordance with the site plans and designs and technical specifications attached hereto as Exhibit A (hereinafter, the Work) and the Contract Documents listed below. The Work will be completed in accordance with the Contract Documents, which consist of the following:

Change orders;

Notice to proceed;

This contract;

Addendums;

CONTRACTOR's complete quote form (Exhibit B); and

Exhibit A – Plans and Designs, and the technical specifications titled "Settlers Glen Pump Harvest Pond Dredging" (6 sheets, October 30, 2022); Division II and Division III sections of the 2020 MnDOT Specifications Manual.

In the event of apparent conflict between terms in Contract Documents, interpretive priority will be given to the first-listed document above. Exhibit A is incorporated into this contract and its terms, conditions and schedules are binding on CONTRACTOR as a term hereof. CONTRACTOR will furnish all materials, machinery, equipment, tools, labor and expertise needed to complete the Work. BCWD, at its discretion, in writing may at any time suspend work or amend the contract to delete any task or portion thereof. Authorized work by CONTRACTOR

on a task deleted or modified by BCWD will be compensated in accordance with the terms of this contract generally and paragraph 5 specifically.

2. Independent Contractor

CONTRACTOR is an independent contractor. CONTRACTOR will select the means, method and manner of performing the Work. Nothing herein constitutes CONTRACTOR as the agent, representative or employee of BCWD in any respect. Personnel performing the Work on behalf of CONTRACTOR will not be considered employees of BCWD and will not be entitled to any compensation, rights or benefits of any kind from BCWD.

3. Subcontract and Assignment

CONTRACTOR may not assign, subcontract or transfer any obligation or interest in this contract or any of the Work without the written consent of BCWD and pursuant to any conditions included in that consent. BCWD consent to any subcontracting does not relieve CONTRACTOR of its responsibility to BCWD to perform the Work or any part thereof, nor in any respect affect its warranty, insurance, indemnification, duty to defend or agreement to hold harmless with respect to the Work.

4. Warranty and Indemnification

CONTRACTOR will perform the Work with due care in a proper, workmanlike and good quality manner, and warrants that all materials and labor will be in strict conformity in every respect with the Contract Documents. CONTRACTOR warrants the completed Work, including all site stabilization measures and vegetation, for one year from the date the BCWD determines the Work to be complete. CONTRACTOR warrants that it has examined the site to the extent necessary to agree to the price of the Work and accepts any increased cost resulting from changes to the Work in response to foreseeable site conditions.

CONTRACTOR will defend, indemnify and hold harmless BCWD, its officers, board members, employees and agents from: (a) CONTRACTOR's negligent or otherwise wrongful act or omission, or breach of a specific contractual duty; or (b) a subcontractor's negligent or otherwise wrongful act or omission, or breach of a specific contractual duty owed by CONTRACTOR to BCWD. For any claim subject to indemnification under this paragraph by an employee of CONSULTANT or a subcontractor, the indemnification obligation is not limited by a limitation on the amount or type of damages, compensation or benefits payable by or for CONSULTANT or a subcontractor under workers' compensation acts, disability acts or other employee benefit acts.

BCWD will indemnify, defend and hold harmless CONTRACTOR, its officers, employees and agents, from any and all actions, costs, damages and liabilities of any nature to the degree they are the result of any action or inaction by BCWD that is the basis for BCWD's liability in law or equity.

5. Compensation

BCWD will compensate the CONTRACTOR on a progress-payments basis for completed work and will reimburse direct costs in accordance with Exhibit B. Invoices will be submitted monthly for work performed during the preceding month. BCWD will pay for undisputed work within 35 days of receipt of invoice. Direct costs not specified in Exhibit B will not be reimbursed except with prior written approval of BCWD administrator. In accordance with Minnesota Statutes section 471.425, subdivision 4a, CONTRACTOR will pay any subcontractor within 10 days of CONTRACTOR's receipt of payment from BCWD for undisputed services provided by the subcontractor. CONTRACTOR will pay interest of 1½ percent per month or any part of a month to a subcontractor on any undisputed amount not paid on time to the subcontractor. The minimum monthly interest penalty payment for an unpaid balance of $100 or more is $10. For an unpaid balance of less than $100, CONTRACTOR will pay the actual penalty due to the subcontractor.

Total compensation due under this contract will not exceed $_____. "Total compensation" means all sums to be paid whatsoever, including but not limited to mobilization, incidental, administrative and overhead costs, subcontract costs and reimbursement of direct costs, whether specified in this contract or subsequently authorized by BCWD administrator.

BCWD will not make final payment until CONTRACTOR has provided proof of compliance with state income tax withholding requirements pursuant to Minnesota Statutes section 270C.66.

CONTRACTOR will maintain all records pertaining to fees or costs incurred in connection with the Work for six years from the date of completion of the Work. Any authorized BCWD representative or representative of the Minnesota State Auditor will have access to and the right to examine, audit or copy any such records during normal business hours.

6. Compliance with Laws; Site Control

CONTRACTOR will comply with the laws and requirements of all federal, state, local and other governmental units in connection with performing the Work, including but not limited to Minnesota Pollution Control Agency permitting and approval requirements for disposition of sediment from stormwater sediment

removal requirements (*see* https://www.pca.state.mn.us/water/wastewater-dredged-materials-management#projects). CONTRACTOR will procure all licenses, permits and other rights and approvals required for the Work, except that BCWD has procured the rights necessary to access the site for purposes of the maintenance via the route and to work within the limits shown in Exhibit A, and except that BCWD will secure approval of the Work under the state Department of Natural Resources work in waters program. CONTRACTOR will not access the site of the Work via a route different from that shown on or exceed the work-area limits shown on Exhibit A. CONTRACTOR will comply with all local requirements as to traffic, staging, site ingress and egress, work hours and site maintenance.

CONTRACTOR is responsible for site conditions relating to worker and public safety, cleanliness and environmental protection and in all other respects. CONTRACTOR will report to Gopher State One Call before any excavation in accordance with Minnesota Statutes chapter 216 as may be applicable to the Work and is responsible to identify and protect all structures and utilities, whether above or below ground, and for any damage or injury resulting from the failure to do so. CONTRACTOR will not injure or destroy any shrub or tree on site except as agreed to by BCWD in writing.

In its performance of the Work, CONTRACTOR will ensure that no person is excluded from full employment rights or participation in or the benefits of any program, service or activity on the ground of race, color, creed, religion, age, sex, disability, marital status, sexual orientation, public assistance status or national origin; and no person who is protected by applicable federal or state laws, rules or regulations against discrimination otherwise will be subjected to discrimination.

7. Termination; Continuation of Obligations

This contract is in force when fully executed by the parties and will remain in force until **August 1, 2023**, unless earlier terminated as set forth herein. BCWD may suspend or terminate this contract with or without cause by a written termination notice stating specifically what prior authorized or additional tasks it requires CONTRACTOR to complete. If the contract is suspended or terminated for convenience, CONTRACTOR will be compensated for all authorized work completed, including reasonable costs for actions directed by BCWD to stabilize the site of the Work. If suspension or termination is for cause, CONTRACTOR will stabilize all disturbed work sites before vacating, without extra compensation. CONTRACTOR will be given a reasonable opportunity to cure before termination for cause.

It is understood and agreed that insurance obligations; warranties and obligations to defend, indemnify and hold harmless; and document-retention requirements survive the completion of the Work and the term of this contract.

8. Waiver

BCWD's failure to insist on CONTRACTOR's strict performance of any obligation, condition or provision of this contract, or to exercise any option, remedy or right herein, will not waive its rights in the future to do so. The waiver of either party on one or more occasion of any provision or obligation of this contract will not be construed as a waiver of any subsequent breach of the same provision or obligation, and the consent or approval by either party to or of any act by the other requiring consent or approval will not render unnecessary such party's consent or approval to any subsequent similar act by the other.

Notwithstanding any other term herein, the contract creates no rights in any third party, and BCWD waives no tort defense, immunity or liability limit with respect to CONTRACTOR or any third party.

9. Insurance

At all times during the term of this contract, CONTRACTOR will have and keep in force the following insurance coverages:

A. General liability: $1.5 million each occurrence and aggregate, covering completed operations and contractual liability on an occurrence basis.

B. Automobile liability: combined single limit each occurrence coverage for bodily injury and property damage covering all vehicles on an occurrence basis, $1.5 million.

C. Workers' compensation: in accordance with legal requirements applicable to CONTRACTOR.

CONTRACTOR will not commence work until it has filed with BCWD a certificate of insurance clearly evidencing the required coverage and naming BCWD as an additional insured with primary coverage for general liability on a noncontributory basis, along with a copy of the additional-insured endorsement. The certificate will name BCWD as a holder and will state that BCWD will receive written notice before cancellation, nonrenewal or a change in the limit of any described policy under the same terms as CONTRACTOR.

10. Records

All documents and information obtained or generated by CONTRACTOR or a subcontractor in performing the Work, including hard and electronic copy, software, and in any other forms in which the materials are contained, documented or memorialized, are the property of BCWD.

BCWD may immediately inspect, copy or take possession of any such materials on written request to CONTRACTOR. CONTRACTOR may maintain a copy of any such materials at its expense.

Any document or information supplied to CONTRACTOR by BCWD or deriving from BCWD is given and accepted without representation or warranty including but not limited to a warranty of fitness, merchantability, accuracy or completeness. Absent BCWD written approval, CONTRACTOR will not use any such document or information other than for performance of the Work. CONTRACTOR will not disclose to any third party proprietary material so denominated by BCWD.

11. Data Practices; Confidentiality

If CONTRACTOR receives a request for data pursuant to the Data Practices Act, Minnesota Statutes chapter 13 (DPA), that may encompass data (as that term is defined in the DPA) CONTRACTOR possesses or has created as a result of this contract, CONTRACTOR will inform BCWD immediately and transmit a copy of the request. If the request is addressed to BCWD, CONTRACTOR will not provide any information or documents, but will direct the inquiry to BCWD. If the request is addressed to CONTRACTOR, CONTRACTOR will be responsible to determine whether it is legally required to respond to the request and otherwise what its legal obligations are, but will notify and consult with BCWD and its legal counsel before replying. Nothing in the preceding sentence supersedes CONTRACTOR's obligations under this contract with respect to protection of BCWD data, property rights in data or confidentiality. Nothing in this section constitutes a determination that CONTRACTOR is performing a governmental function within the meaning of Minnesota Statutes section 13.05, subdivision 11, or otherwise expands the applicability of the DPA beyond its scope under governing law.

CONTRACTOR agrees that it will not disclose and will hold in confidence any and all proprietary materials owned or possessed by BCWD and so denominated by BCWD. CONTRACTOR will not use any such materials for any purpose other than performance of the Work without BCWD written consent. This restriction does not apply to materials already possessed by CONTRACTOR or that CONTRACTOR received on a non-confidential basis from BCWD or another party.

12. BCWD Property

All property furnished to or for the use of CONTRACTOR or a subcontractor by BCWD and not fully used in the performance of the Work, including but not limited to equipment, supplies, materials and data, both hard copy and electronic, will remain the property of BCWD and returned to BCWD at the conclusion of the performance of the Work, or sooner if requested by BCWD. CONTRACTOR further agrees that any proprietary materials are the exclusive property of BCWD and will assert no right, title or interest in the materials. CONTRACTOR will not disseminate, transfer or dispose of any proprietary materials to any other person or entity unless specifically authorized in writing by BCWD. Any property including but not limited to materials supplied to CONTRACTOR by BCWD or deriving from BCWD is supplied to and accepted by CONTRACTOR as without representation or warranty including but not limited to a warranty of fitness, merchantability, accuracy or completeness. However, CONTRACTOR's warranty under paragraph 4, above, does not extend to materials provided to CONTRACTOR by BCWD or any portion of the Work that is inaccurate or incomplete as the result of CONTRACTOR's reliance on those materials.

13. Notices

Any written communication to BCWD required under this contract will be directed to:

Karen Kill
455 Hayward Avenue North
Oakdale, Minnesota 55128
651-330-8220 x26

Written communication to CONTRACTOR:

Owner Name:
Company Name:
Street Address:
City: State: Zip:
Phone Number:

14. Choice of Law, Venue and Jurisdiction

This contract will be construed under and governed by the laws of the State of Minnesota.

15. Completion of Work

The Work must be certified by the CONTRACTOR as substantially complete for the purposes intended on or before April 30, 2023, and all complete and ready for final payment by June 1, 2023.

16. Whole Contract

The entire contract between the parties is contained herein and this contract supersedes all oral contracts and negotiations relating to the subject matter hereof. BCWD may amend this contract by means of a proper work change directive clearly denominated as such. Any other amendment must be signed by both parties.

IN WITNESS WHEREOF, intending to be legally bound, the parties hereto execute and deliver this contract.

[CONTRACTOR]

_____ Date: _____

By _____

Its_____

BROWN'S CREEK
WATERSHED DISTRICT

_____ Date: _____

By Karen Kill

Its administrator

Approved as to form and execution

_____

Counsel, Brown's Creek Watershed District

EXHIBIT A
Site Plans, Design and Specifications

EXHIBIT B
Contractor's Completed Quote Form

EXHIBIT A

BROWN'S CREEK WATERSHED DISTRICT

SETTLERS GLEN PUMP HARVEST POND DREDGING

WASHINGTON, MINNESOTA

Sheet List Table	
Sheet Number	Sheet Title
01	TITLE SHEET
02	SEQ & NOTES
03	EXISTING CONDITIONS
04	PROPOSED GRADING
05	EROSION CONTROL & RESTORATION
06	DETAIL SHEETS

* THIS PLAN SET CONTAINS 06 PLAN SHEETS

GOVERNING SPECIFICATIONS

THE 2020 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN

ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING FIELD MANUAL FOR TEMPORARY CONTROL ZONE LAYOUTS.

EXISTING UTILITIES

THE LOCATION OF UNDERGROUND FACILITIES AND/OR STRUCTURES AS SHOWN ON THE PLANS ARE BASED ON AVAILABLE RECORD AT THE TIME THE PLANS WERE PREPARED AND ARE NOT GUARANTEED TO BE COMPLETE OR CORRECT. THE SUBSURFACE UTILITY INFORMATION SHOWN IS UTILITY QUALITY LEVEL D, AS DETERMINED USING THE GUIDELINES OF "CI/ASCE 38-02 STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA." THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITIES 72 HOURS PRIOR TO CONSTRUCTION TO DETERMINE THE EXACT LOCATION OF ALL FACILITIES AND TO PROVIDE ADEQUATE PROTECTION OF SAID UTILITIES DURING THE COURSE OF WORK.

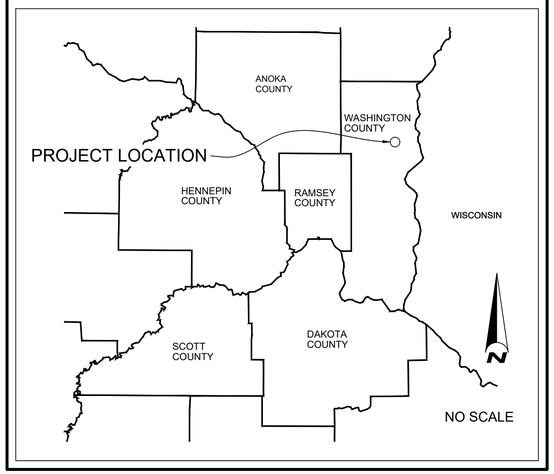
CONSTRUCTION NOTE

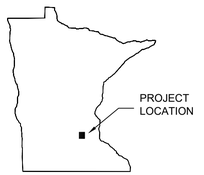
CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO MAINTAIN OPERATION OF EXISTING UTILITIES THROUGHOUT THE DURATION OF THE PROJECT. IN THE EVENT THAT AN INTERRUPTION OF SERVICE IS UNAVOIDABLE IN ORDER TO COMPLETE THE WORK, CONTRACTOR SHALL PROVIDE ADEQUATE NOTIFICATION TO ALL AFFECTED BUSINESSES A MINIMUM OF 3 WORKING DAYS IN ADVANCE OF ANY INTERRUPTION.

GOPHER STATE ONE-CALL

IT IS THE LAW THAT ANYONE EXCAVATING AT ANY SITE MUST NOTIFY GOPHER STATE ONE CALL (GSOC) SO THAT UNDERGROUND ELECTRIC, NATURAL GAS, TELEPHONE OR OTHER UTILITY LINES CAN BE MARKED ON OR NEAR YOUR PROPERTY BEFORE ANY DIGGING BEGINS. A 48-HOUR NOTICE, NOT INCLUDING WEEKENDS, IS REQUIRED. CALLS CAN BE MADE TO GSOC AT 1-800-252-1166 OR (651)454-0002, MONDAY THROUGH FRIDAY (EXCEPT HOLIDAYS) FROM 7 A.M. TO 5 P.M.

LOCATION MAP





CLIENT
BROWN'S CREEK WATERSHED DISTRICT
455 HAYWARD AVE N
OAKDALE, MN 55128

ENGINEER
EMMONS & OLIVIER RESOURCES, INC.
1919 UNIVERSITY AVE W SUITE 300
ST PAUL, MINNESOTA 55104
TELEPHONE: (651) 770-8448
FAX: (651) 770-2552
EORINC.COM

NO	DATE	BY	REVISION
6			
5			
4			
3			
2			
1			

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

RYAN FLEMING
DATE: 10-30-2022 LICENSE # 46211

SUBMISSION DATE: 10-30-2022

DESIGN BY RF | DRAWN BY BR

EOR PROJECT NO. 00041-0339

Emmons & Olivier Resources, Inc.
1919 UNIV. AVE W #300
ST. PAUL, MN 55104
TELE: 651.770.8448
www.eor.com

BROWN'S CREEK WATERSHED DISTRICT
455 HAYWARD AVE N
OAKDALE, MN 55128

SETTLERS GLEN PUMP HARVEST POND DREDGING
STILLWATER, WASHINGTON, MINNESOTA

STATE PROJECT NO. --- | CITY PROJECT NO. ---

TITLE SHEET

SHEET 01 OF 06 SHEETS

Plot Date: 11/18/2022
Drawing name: X:\clients_wd\041_BCWD\0408_iesf_om_2022\09_GMS\dwg\CD-DRAWING.dwg
Xrefs: PARCELS2, X-BASE2, X-TR2, P-Base2, RMF_SIGNATURE

EXHIBIT A

Item	MnDOT Reference #	Unit	Estimate
Mobilization	2021.501	LS	1.00
Muck Excavation (EV) (Including Disposal)	2105.507	CY	215.00
Stabilized Construction Exit (Install, Maintain & Removal)	2573.501	LS	1.00
Storm Drain Inlet Protection (Install, Maintain & Removal)	2573.501	LS	1.00
Sediment Control Log (Install, Maintain & Removal)	2573.503	LF	390.00
Sediment Filter log	2573.503	EA	1.00
Turf Establishment	2575.501	LS	1.00

GRADING & EROSION CONTROL NOTES

1. CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL (1-800-252-1166 OR 651-454-0002) BY AT LEAST TWO (2) BUSINESS DAYS PRIOR TO EXCAVATION/ CONSTRUCTION, FOR UTILITY LOCATIONS.
2. CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO START OF SITE GRADING. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER OF ANY DISCREPANCIES OR VARIATIONS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL HORIZONTAL AND VERTICAL CONTROL.
4. INSTALL EROSION CONTROL AND TREE PROTECTION MEASURES BEFORE BEGINNING SITE GRADING ACTIVITIES. MAINTAIN EROSION CONTROLS THROUGHOUT THE GRADING PROCESS AND REMOVE UPON APPROVAL BY PROJECT ENGINEER.
5. ALL EXPOSED SOIL AREAS WITHIN 100 FEET OF A WATER OF THE STATE OR ANY STORMWATER CONVEYANCE SYSTEM WHICH IS CONNECTED TO A WATER OF THE STATE MUST BE STABILIZED WITHIN 24 HOURS.
6. SEE PROPOSED GRADING, DRAINAGE, AND EROSION CONTROL PLAN FOR ADDITIONAL REQUIREMENTS.
7. ALL CONSTRUCTION ENTRANCES SHALL BE SURFACED WITH CRUSHED ROCK ACROSS FULL WIDTH FROM ENTRANCE POINT TO 50 FEET INTO THE CONSTRUCTION ZONE. SEE DETAIL. ALTERNATIVE DEVICES MAY BE USED AFTER APPROVAL BY ENGINEER.
8. INLET PROTECTION IS TO BE USED DURING CONSTRUCTION. SEE MN/DOT SPECIFICATIONS.
9. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH CITY, COUNTY, STATE AND BCWD PERMITS.
10. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES, INCLUDING THE REMOVAL OF ACCUMULATED SILT IN FRONT OF SILT FENCES OR OTHER DEVICES DURING THE DURATION OF THE CONSTRUCTION.
11. CONTRACTOR SHALL PROVIDE ADDITIONAL TEMPORARY EROSION CONTROL MEASURES AS REQUIRED FOR CONSTRUCTION.
12. REMOVE ALL EROSION CONTROL MEASURES AT DIRECTION OF ENGINEER.
13. THE CONTRACTOR SHALL REMOVE ALL SOILS AND SEDIMENT TRACKED ONTO EXISTING STREETS AND PAVED AREAS WITHIN 24 HOURS OF NOTICE AND, ON A DAILY BASIS AND MORE OFTEN IF DEEMED NECESSARY BY CITY AND PROJECT ENGINEER.
14. IF BLOWING DUST BECOMES A NUISANCE, THE CONTRACTOR SHALL APPLY WATER FROM A TANK TRUCK OR OTHER MEANS APPROPRIATE TO ALL CONSTRUCTION AREAS.
15. INSPECT EROSION CONTROL DEVICES AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. IMMEDIATELY REPAIR FAILED OR FAILING EROSION CONTROL DEVICES.
16. SEDIMENT REMOVAL - SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT.
17. ANY SEDIMENT REMAINING IN PLACE AFTER THE EROSION CONTROL DEVICE IS NO LONGER REQUIRED SHALL BE GRADED TO CONFORM WITH THE EXISTING GRADE, PREPARED, AND SEEDED WITH THE APPROPRIATE SEED MIX AND MULCH OR EROSION CONTROL REVEGETATIVE BLNAKET AS DIRECTED BY THE ENGINEER.
18. SUITABLE GRADING MATERIAL SHALL CONSIST OF ALL SOIL ENCOUNTERED ON THE SITE WITH EXCEPTION OF TOPSOIL, DEBRIS, ORGANIC MATERIAL AND OTHER UNSTABLE MATERIAL. STOCKPILE TOPSOIL AND GRANULAR FILL AT LOCATIONS DIRECTED BY OWNER.
19. FINAL GRADING TOLERANCES ARE ±0.1 FEET OF PLAN GRADES.
20. ALL EXCESS MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OFF THE CONSTRUCTION SITE.
21. CONTRACTOR IS RESPONSIBLE FOR GRADING AND SLOPING THE FINISHED GROUND SURFACE TO PROVIDE SMOOTH & UNIFORM SLOPES, WHICH PROVIDE POSITIVE DRAINAGE AND PREVENT PONDING IN LOWER AREAS. CONTACT ENGINEER IF FIELD ADJUSTMENTS TO GRADING PLANS ARE REQUIRED.
22. TURF RESTORATION IS TO BE SEEDED AND BLANKETED IN ACCORDANCE WITH THE RESTORATION PLAN.
23. THE PROJECT IS LOCATED IN WHAT THE OWNER CONSIDERS AN ENVIRONMENTALLY SENSITIVE AREA. DISTURBANCE IS TO BE MINIMIZED TO THE EXTENT POSSIBLE. RESTORATION OF ANY DISTURBED AREA OUTSIDE OF THE CONSTRUCTION LIMITS IS TO BE CONSIDERED INCIDENTAL TO THE PROJECT.

GENERAL SITE WORK NOTES

1. REFERENCE TO MN/DOT SPECIFICATIONS SHALL MEAN THE 2020 SPECIFICATIONS FOR CONSTRUCTION.
2. ENGINEER WILL PROVIDE 1 BENCHMARK ON TOP OF INTAKE STRUCTURE LOCATED IN POND. ELEVATION OF CONTROL WILL BE PROVIDED TO CONTRACTOR.
3. SITE ACCESS IS ONLY OFF MORGAN COURT FROM MORGAN AVENUE N.
4. FOLLOW MN/DOT STD. SPECIFICATION 2575 FOR VEGETATION ESTABLISHMENT REQUIREMENTS.
5. INSTALL MN/DOT SEED MIX 130 AND TYPE 3 MULCH PER SPECIFICATION 3876 FOR TEMPORARY COVER OF GRADED AREAS INCLUDING TOPSOIL STOCKPILES.
6. TOPOGRAPHIC INFORMATION PER BOUNDARY AND TOPOGRAPHIC SURVEY BY ORIGINAL MFRA DESIGN AND EOR SUPPLEMENTAL SURVEY.
7. CONTRACTOR SHALL INSTALL, INSPECT, MAINTAIN AND REMOVE THE NECESSARY SIGNAGE FOR TRAFFIC CONTROL. ALL TRAFFIC CONTROL DEVICES AND SIGNING SHALL CONFORM TO THE MN MUTCD.

TRAIL ACCESS NOTES

1. CONTRACTOR SHALL COORDINATE TRAIL ACCESS AND PUBLIC CLOSURES, AS NEEDED, WITH THE CITY OF STILLWATER.

HARVEST POND BYPASS / DEWATERING NOTES

1. THE HARVEST POND IS CONSIDERED A PUBLIC WATER FOR WHICH TEMPORARY DRAWDOWN IS REGULATED UNDER MN STATUTE 103G.408. ANY DEWATERING SHALL ADHERE TO THE REQUIREMENTS OF THE CITY, DISTRICT, AND STATE.
2. MNDOT SECTIONS 2573 STORMWATER MANAGEMENT AND 3875 WATER TREATMENT APPLY.
3. IF DEWATERING IS NEEDED, THE CONTRACTOR MUST SUBMIT A PLAN FOR DEWATERING AND PUMPING THAT SPECIFIES HOW MUCH WATER THEY ANTICIPATE PUMPING, THE METHOD FOR DEWATERING, THE LOCATION OF DISCHARGE, AND PROVISIONS FOR MANAGING DISCHARGE OF TURBID OR SEDIMENT LADEN WATER.
4. DEWATERING WORK SHALL INCLUDE ALL WORK ITEMS NECESSARY TO COMPLETE REMOVAL OF POND WATER AS NECESSARY FOR THE WORK, INCLUDING BUT NOT LIMITED TO SEDIMENT CONTROL.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING SITE DISCHARGES, INCLUDING BUT NOT LIMITED TO PUMPING OF SEDIMENT LADEN WATER.
6. THE CONTRACTOR MAY DIVERT STREAM INFLOW TO THE HISTORIC CHANNEL ALIGNED ALONG THE WEST SIDE OF THE POND TO ALLOW THE STREAM TO BYPASS THE PUMP HARVEST POND. NOTE THAT USE OF THIS CHANNEL HAS NOT BEEN TESTED. MEANS OF DIVERSION TO BE REVIEWED BY THE PROJECT ENGINEER. DIVERSION OF FLOW IS INCIDENTAL TO DEWATERING (MNDOT 2573.601).
7. THE HARVEST PONDS PUMPING SYSTEM MAY BE UTILIZED, UPON REQUEST, TO DRAW THE POND DOWN TO AN ELEVATION OF APPROXIMATELY 872.9 FEET. PUMPED WATER WITH THE IN-PLACE SYSTEM MUST NOT BE SEDIMENT LADEN.

Plot Date: 11/18/2022
Drawing name: X:\clients_wd\041_BCWD\0408_iesf_om_2022\09_GIMS\dwg\CD-DRAWING.dwg
Xrefs:, PARCELS2, X-BASE2, X-TR2, P-Base2, RMF_SIGNATURE

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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

RYAN FLEMING
DATE: 10-30-2022 LICENSE # ----

SUBMISSION DATE: 10-30-2022
DESIGN BY RF DRAWN BY BR
EOR PROJECT NO. 00041-0339

Emmons & Olivier Resources, Inc.
1919 UNIV. AVE W #300
ST. PAUL, MN 55104
TELE: 651.770.8448
www.eor.com
water ecology community

BROWN'S CREEK WATERSHED DISTRICT
455 HAYWARD AVE N
OAKDALE, MN 55128

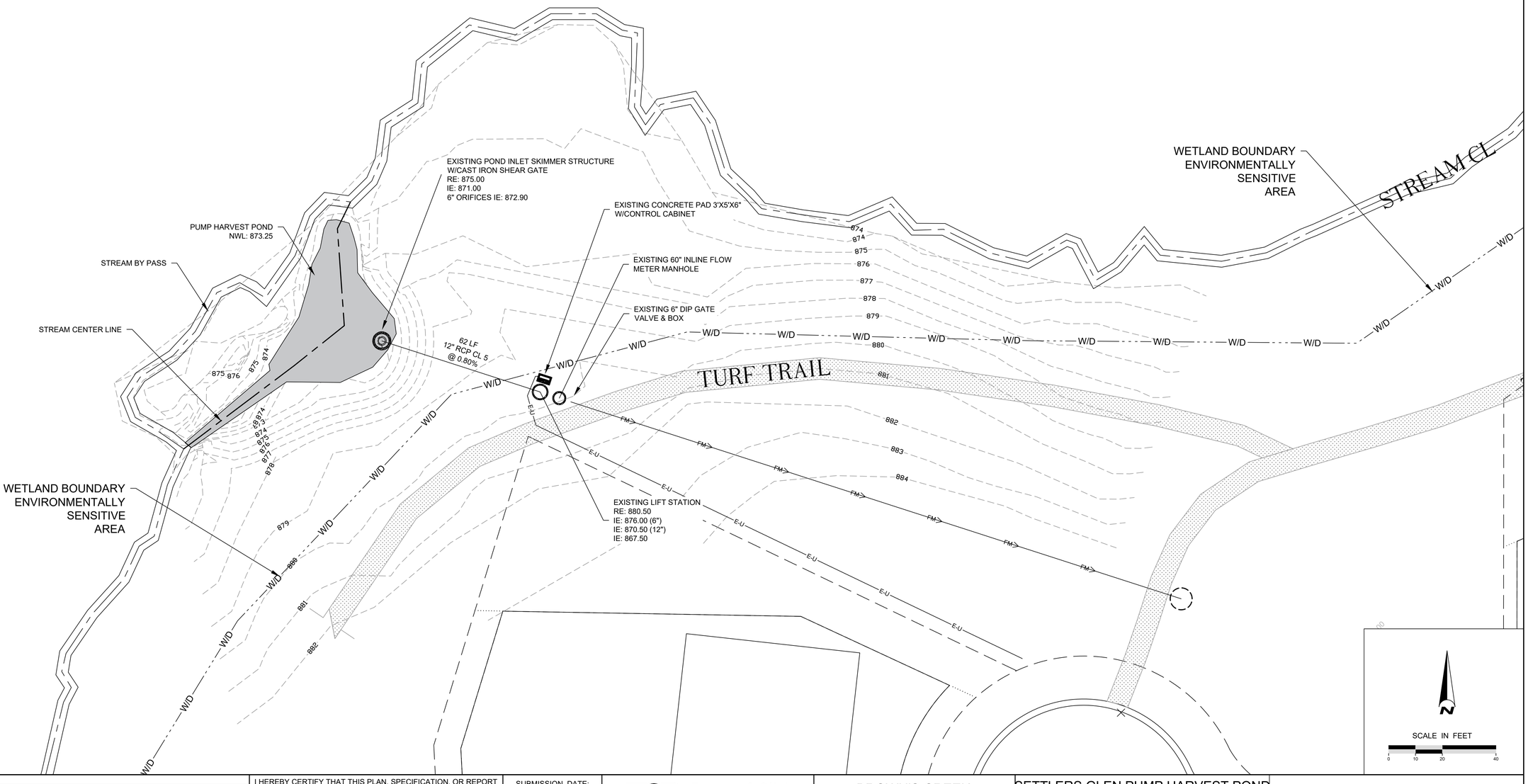
SETTLERS GLEN PUMP HARVEST POND DREDGING
STILLWATER, WASHINGTON, MINNESOTA

STATE PROJECT NO. ---- CITY PROJECT NO. ---

SEQ & NOTES

SHEET 02 OF 06 SHEETS

EXHIBIT A



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STILLWATER, WASHINGTON, MINNESOTA

STATE PROJECT NO. ---- | CITY PROJECT NO. ---

EXISTING CONDITIONS

SHEET 03 OF 06 SHEETS

Plot Date: 11/18/2022
Drawing Name: J:\Projects_wtf\041 BCWD\0408_ietf_om_2022\09_GIMS\dwg\CD-DRAWING.dwg
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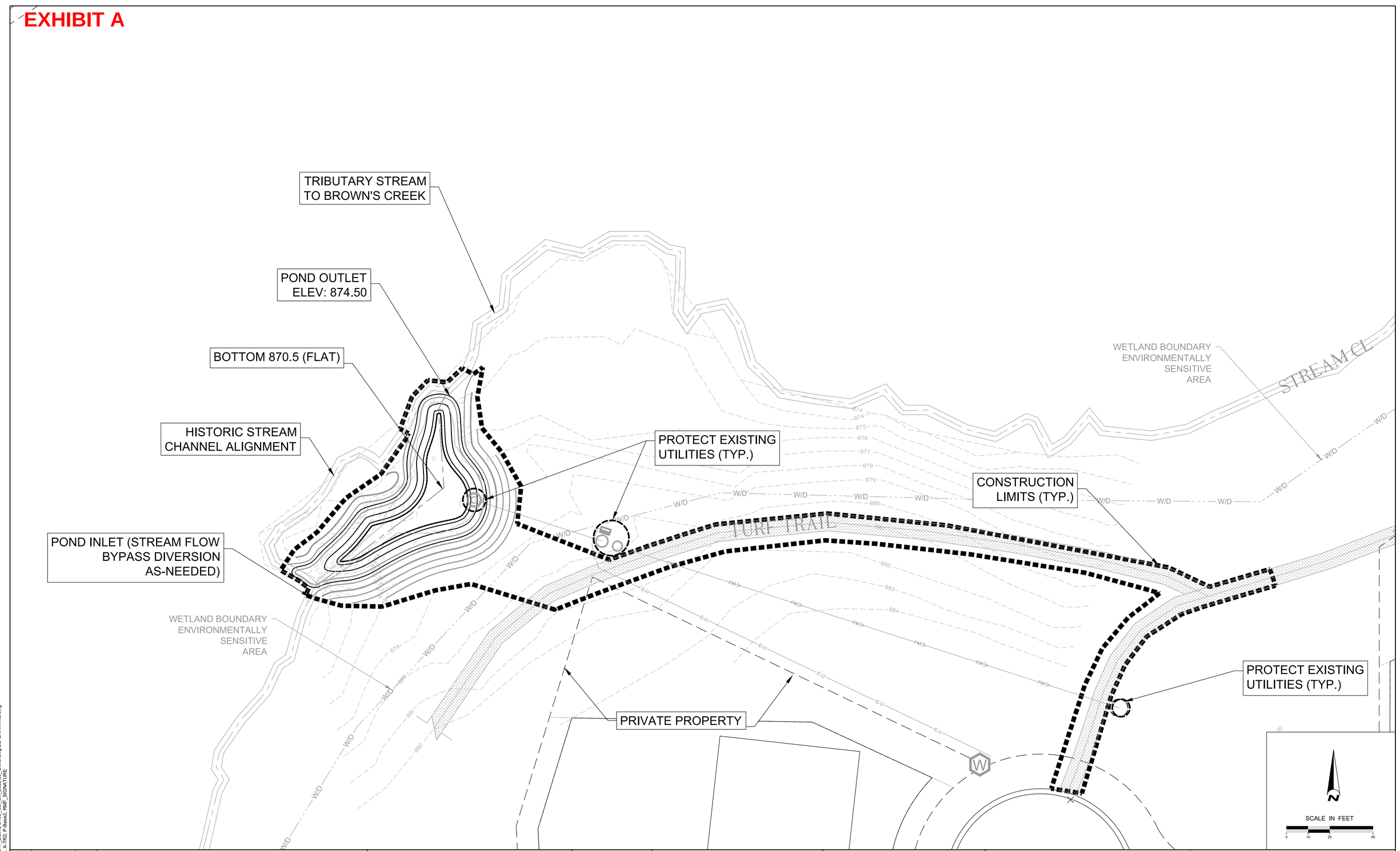
EXHIBIT A



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DATE: 10-30-2022 LICENSE # ----

SUBMISSION DATE: 10-30-2022

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STILLWATER, WASHINGTON, MINNESOTA

STATE PROJECT NO. ---- CITY PROJECT NO. ---

PROPOSED GRADING

SHEET 04 OF 06 SHEETS

Plot Date: 11/18/2022
Drawing Name: K:\Projects_wet\041_BCWD\04\08_ieaf_om_2022\09_GIS\dwg\CD-DRAWING.dwg
Xrefs: PARCELS2, X-BASE2, X-TR2, P-Base2, RMF_SIGNATURE

EXHIBIT A

ALL DISTURBED AREAS TO BE RESTORED WITH CORRESPONDING SEED MIX

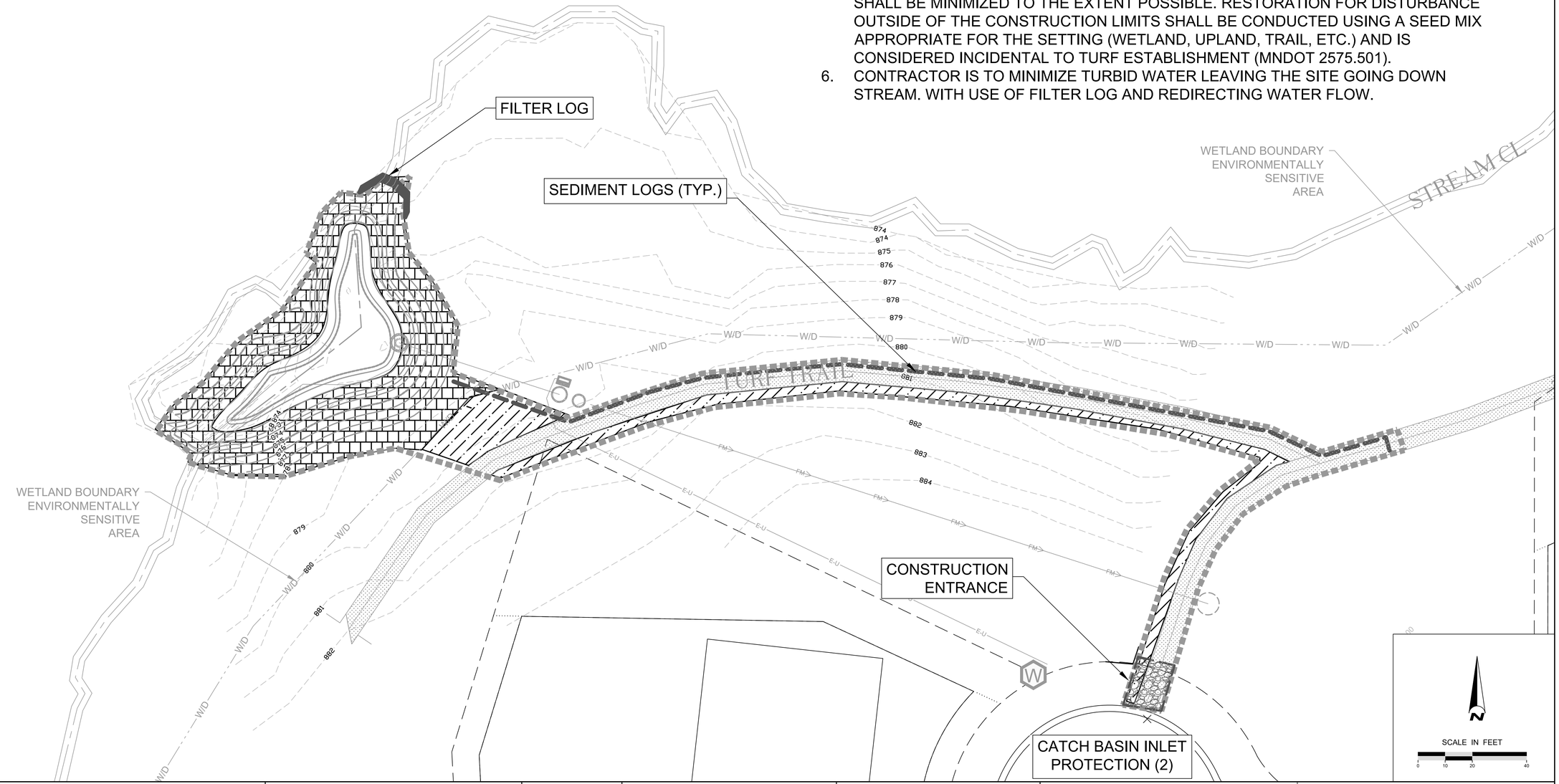
33-261 STORMWATER SOUTH & WEST 35 LB/ACRE WITH CATEGORY 0 NATURAL EROSION CONTROL BLANKET (CURLEX NETFREE OR APPROVED EQUAL) INCIDENTAL,

35-241 MESIC PRAIRIE GENERAL 36.5 LB/ACRE WITH CATEGORY 0 NATURAL EROSION CONTROL BLANKET (CURLEX NETFREE OR APPROVED EQUAL) INCIDENTAL.

25-131 LOW MAINTENANCE TURF 220 LB/ACRE WITH CATEGORY 0 NATURAL EROSION CONTROL BLANKET (CURLEX NETFREE OR APPROVED EQUAL) INCIDENTAL.

RESTORATION NOTES:

1. RESTORE ALL DISTURBED AREAS WITH SEED MIXES AND EROSION CONTROL BLANKET AS SHOWN ON PLANS.
2. PRIOR TO SEEDING PREPARE THE SEED BED PER Mn-DOT SPEC 2574.A4.
3. ACCEPTABLE SEEDING DATES ARE APRIL 15 - JULY 20 IN THE SPRING, OR SEPTEMBER 20 - OCTOBER 20 IN THE FALL. WRITTEN PERMISSION BY THE ENGINEER TO PERFORM SEEDING OPERATIONS ON ANY OTHER DATES OF THE YEAR.
4. INCLUDE A COVER CROP OF OATS WITHIN NATIVE SEE MIXES (AT A RATE OF 80LB/ACRE) IF SEEDING BETWEEN OCTOBER 15 AND AUGUST 1. IF SEEDING BETWEEN AUGUST 1 AND OCTOBER 15, SUBSTITUTE WINTER WHEAT FOR OATS AT THE SAME RATE.
5. THE SITE IS LOCATED IN AN ENVIRONMENTALLY SENSITIVE AREA. DISTURBANCE SHALL BE MINIMIZED TO THE EXTENT POSSIBLE. RESTORATION FOR DISTURBANCE OUTSIDE OF THE CONSTRUCTION LIMITS SHALL BE CONDUCTED USING A SEED MIX APPROPRIATE FOR THE SETTING (WETLAND, UPLAND, TRAIL, ETC.) AND IS CONSIDERED INCIDENTAL TO TURF ESTABLISHMENT (MNDOT 2575.501).
6. CONTRACTOR IS TO MINIMIZE TURBID WATER LEAVING THE SITE GOING DOWN STREAM. WITH USE OF FILTER LOG AND REDIRECTING WATER FLOW.



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SETTLERS GLEN PUMP HARVEST POND DREDGING
STILLWATER, WASHINGTON, MINNESOTA

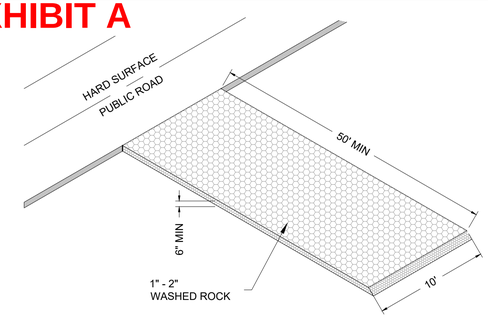
STATE PROJECT NO. ---- CITY PROJECT NO. ---

EROSION CONTROL & RESTORATION

SHEET 05 OF 06 SHEETS

Plot Date: 11/18/2022
Drawing Name: X:\Projects_wd\041_BCWD\0408_ied_orn_2022\09_GIMS\dwg\CD-DRAWING.dwg
Xrefs:, PARCELS2, X-BASE2, X-TR2, P-Base2, RMF_SIGNATURE

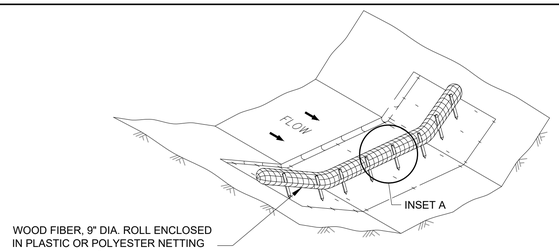
EXHIBIT A



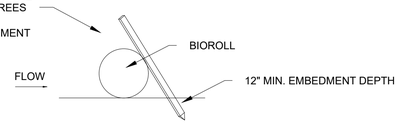
NOTE :
1. ROCK CONSTRUCTION ENTRANCE SHALL BE MAINTAINED FOR THE DURATION OF THE CONSTRUCTION PROCESS.
2. ROCK CONSTRUCTION ENTRANCE SHALL BE REMOVED AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED AND AREA SHALL BE RESTORED PER THE RESTORATION PLAN SHEET.
3. ALTERNATIVE CONSTRUCTION ENTRANCE MAY BE UTILIZED AFTER APPROVAL BY ENGINEER.

01/06 ROCK CONSTRUCTION ENTRANCE

(No Scale)



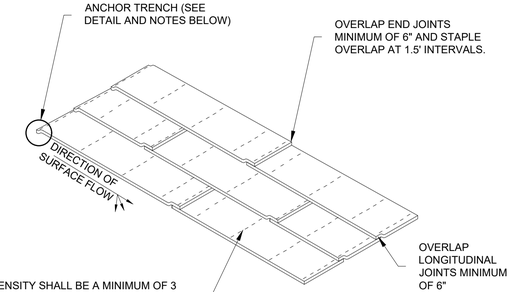
1" X 2" X 24" LONG WOODEN STAKES AT 5' 0" SPACING MAXIMUM. STAKES SHALL BE DRIVEN ON THE DOWN GRADIENT SIDE OF THE SEDIMENT LOG AT AN ANGLE OF 45 DEGREES WITH THE TOP OF THE STAKE POINTING UPSTREAM. PROVIDE 12" MIN. OF EMBEDMENT DEPTH.



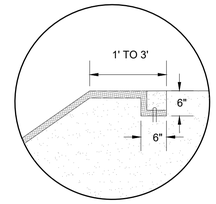
INSET "A"

02/06 SEDIMENT LOG STAKING DETAIL

(No Scale)



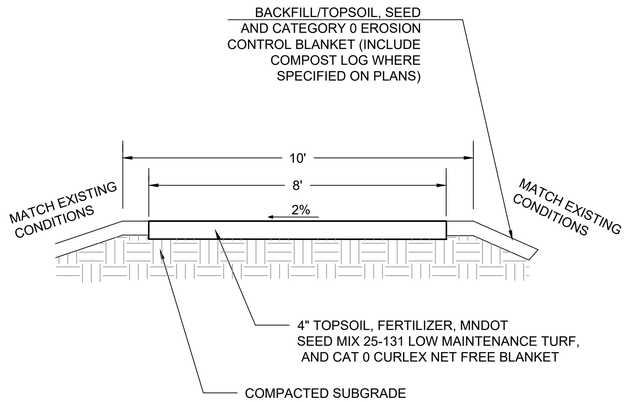
ANCHOR TRENCH
1. DIG 6" X 6" TRENCH
2. LAY BLANKET IN TRENCH
3. STAPLE AT 1.5' INTERVALS
4. BACKFILL WITH NATURAL SOIL AND COMPACT
5. BLANKET LENGTH SHALL NOT EXCEED 100' WITHOUT AN ANCHOR TRENCH



NOTE :
1. ALL EROSION CONTROL BLANKED TO BE CAT 0 CURLEX NET FREE BLANKET OR APPROVED EQUAL.

03/06 EROSION CONTROL BLANKET DETAIL

(No Scale)

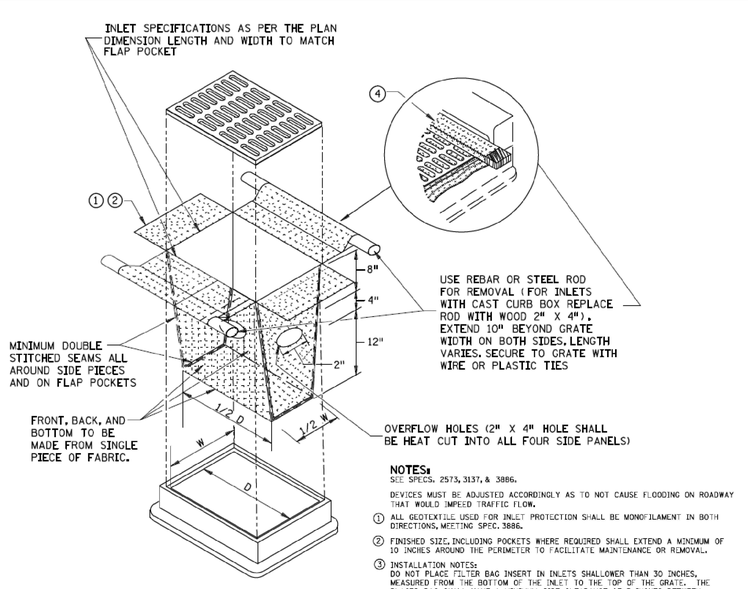


NOTES:

1. CONTRACTOR TO RESTORE TRAIL TO ORIGINAL CONDITION.
2. ALL SEEDING AND RESTORATION SHALL OCCUR WITHIN 7 DAYS OF FINAL GRADING.

04/06 TRAIL RESTORATION

(No Scale)



FILTER BAG INSERT ③

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX)

NOTES:
SEE SPECS. 2573, 3137, & 3886.

DEVICES MUST BE ADJUSTED ACCORDINGLY AS TO NOT CAUSE FLOODING ON ROADWAY THAT WOULD IMPEED TRAFFIC FLOW.

① ALL GEOTEXTILE USED FOR INLET PROTECTION SHALL BE MONOFILAMENT IN BOTH DIRECTIONS, MEETING SPEC. 3886.

② FINISHED SIZE, INCLUDING POCKETS WHERE REQUIRED SHALL EXTEND A MINIMUM OF 10 INCHES AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

③ INSTALLATION NOTES:
DO NOT PLACE FILTER BAG INSERT IN INLETS SHALLOWER THAN 30 INCHES, MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE. THE PLACED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE OF 3 INCHES BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES. WHERE NECESSARY THE CONTRACTOR SHALL CLINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCH SIDE CLEARANCE.

④ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2 INCH X 4 INCH OR USE A ROCK SOCK OR SAND BAGS IN PLACE OF THE FLAP POCKETS.

05/06 STORM DRAIN INLET PROTECTION

(No Scale)

NO	DATE	BY	REVISION
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DATE: 10-30-2022 LICENSE # ----

SUBMISSION DATE: 10-30-2022

DESIGN BY RF | DRAWN BY BR

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SETTLERS GLEN PUMP HARVEST POND DREDGING
STILLWATER, WASHINGTON, MINNESOTA

STATE PROJECT NO. ---- | CITY PROJECT NO. ---

DETAIL SHEETS

SHEET 06 OF 06 SHEETS

Plot Date: 11/18/2022
Drawing Name: X:\Projects_wt\041_BCWD\0408_ied_cm_202209_GMS\dwg\CD-DRAWING.dwg
Xrefs: PARCELS2, X-BASE2, X-TR2, P-Base2, RMF_SIGNATURE

EXHIBIT B

QUOTE FORM FOR SETTLERS GLEN PUMP HARVEST POND DREDGING

Item No.	Item	MNDOT Ref #	Unit	# Units	Unit Price	Total Price
Division 2: General / Grading						
1	Mobilization	2021.501	LS	1.00		
2	Muck Excavation (EV) (Including Disposal)	2105.507	CY	215.00		
					Subtotal	
Division 2: Miscellaneous Construction						
3	Stabilized Construction Exit (Install, Maintain & Removal)	2573.501	LS	1.00		
4	Storm Drain Inlet Protection (Install, Maintain & Removal)	2573.501	LS	1.00		
5	Sediment Control & Filter Log (Install, Maintain & Removal)	2573.503	LF	390.00		
6	Turf Establishment	2575.501	LS	1.00		
7	Dewatering and Pumping	2573.601	LS	1.00		
					Subtotal	
					Project Total	

ATTACHMENT 1

COOPERATIVE AGREEMENT BETWEEN CITY OF STILLWATER AND BROWN'S CREEK WATERSHED DISTRICT FOR THE SETTLER'S GLEN IRON-SAND FILTRATION PROJECT

THIS AGREEMENT is made by and between the City of Stillwater (City), a Minnesota charter city and body corporate and politic, and the Brown's Creek Watershed District (BCWD), a watershed district with purposes and powers set forth in Minnesota Statutes chapters 103B and 103D (together, the Parties).

RECITALS

WHEREAS BCWD has authority under chapters 103B and 103D to design and implement programs and projects to improve water quality and protect water resources within the Brown's Creek watershed;

WHEREAS BCWD has an approved water-resources management plan pursuant to Minnesota Statutes chapter 103B, and in fulfillment of a goal of the plan, BCWD has completed a management plan for McKusick Lake in collaboration with the City of Stillwater and the Middle St. Croix Watershed Management Organization that calls for the removal of 148 pounds of phosphorous each year from the portion of the Brown's Creek watershed tributary to McKusick Lake;

WHEREAS on April 9, 2012, the BCWD Board of Managers ordered, in accordance with Minnesota Statutes section 103B.251, the construction of an iron-enhanced sand filter on an outlot dedicated to City on the plat for the Settler's Glen addition (the Outlot) and three properties owned by private parties (the Private Properties) to reduce phosphorus in McKusick Lake (the Project). The preliminary site plan for the Project is attached to and incorporated into this agreement as Exhibit A;

WHEREAS City supports the implementation of the McKusick Lake management plan and wishes to facilitate BCWD's construction, operation and maintenance of the Project;

WHEREAS City holds an easement for a trail on two of the Private Properties (the Trail Easement, attached to and incorporated into this agreement as Exhibit B) and maintains an unpaved trail thereon (the Trail), and City holds a drainage and utility easement over each of the Private Properties (the Drainage Easement, as shown in the plat attached to and incorporated into this agreement as Exhibit C) (together, the Easements) and the portions of the Project to be constructed on the Private Properties are entirely within the Drainage Easement, as shown in Exhibit A;

WHEREAS City has constructed and presently maintains stormwater-management ponds on the Outlot and Drainage Easement, as shown in Exhibit A (the Facilities); and

WHEREAS City and BCWD acknowledge that BCWD's ability to achieve Project objectives depends on the Parties' continued cooperation.

NOW, THEREFORE, IT IS AGREED by and between City and BCWD that they enter into this Cooperative Agreement to document their understanding as to the scope of the Project, affirm their commitments as to responsibility for tasks to be undertaken, grant and assign the property rights necessary, establish procedures for performing these tasks and fulfilling responsibilities, and facilitate communication and cooperation to ensure successful completion of the Project to improve water quality in McKusick Lake.

AGREEMENT

1. CITY'S RIGHTS AND COMMITMENTS AND GRANT AND ASSIGNMENT OF RIGHTS FOR ACCESS, CONSTRUCTION AND MAINTENANCE

A. City has the right to review and comment on the 90 percent-complete plans and specifications for the Project provided in accordance with paragraph 2A of this agreement and, within 30 days of receipt of the plans and specifications from BCWD, provide comments.

B. BCWD's construction of the Project will entail excavation, grading and filling; alteration of topography, vegetation, hydrology and stormwater treatment systems; construction of an upstream harvesting basin and pump lift station with associated intake unit; integration of an iron-sand filtration system into the Facilities; installation of an under-drain treated-discharge outlet; and trenching for installation of conduit under the Trail. After completion of construction, maintenance of the Project will entail assessment of the effectiveness and maintenance of the Project, and may involve reconstruction of the Project to restore its effectiveness. For these purposes, the City hereby:

   i. grants to BCWD, its contractors, agents and assigns an easement to access and use the access, construction and maintenance areas of the Outlot, as delineated on Exhibit A;

   ii. authorizes the BCWD, its contractors, agents and assignees to utilize City's rights under the Easements to access and use the access, construction and maintenance areas of the Easements, as delineated on Exhibit A. City's authorization hereunder is nonexclusive, except that BCWD, on reasonable notice to City, may temporarily restrict or preclude public access to the Trail Easement in the access, construction and maintenance areas to ensure safety while construction or maintenance activities are under way.

C. City will forbear from any activity that interferes with the BCWD's ability to exercise its rights or meet its obligations under this agreement, including but not limited to City transfer of ownership of the Outlot or vacation of the Easements. City will facilitate BCWD's reasonable exercise of its rights under this agreement with regard to access to and use of the Outlot and Easements. City will not take any action within the Outlot and Easements areas that could reasonably be expected to diminish the effectiveness or function of the Project for the purposes intended, and after notice of completion of construction of the Project from BCWD, City will maintain the Trail in a manner that

avoids altering flow through the conduits constructed under the Trail as part of the Project.

D. City, as owner of the Outlot and Easements, will cooperate with BCWD's and its contractor's efforts to obtain permits and approvals needed for the Project and will serve as a co-applicant for permits and approvals. City, in its regulatory capacity, will facilitate the proper and efficient processing of any permits and approvals needed for the Project.

E. On completion of construction of the Project, City will retain ownership of the improved Facilities and will maintain the Facilities in coordination with BCWD's maintenance of the Project as provided in paragraph 2.C.iv of this agreement.

F. City will cooperate with BCWD in all communications and outreach to property owners affected by the Project.

2. BCWD'S RIGHTS AND COMMITMENTS

A. BCWD, at its sole expense, will prepare plans and specifications for the Project and submit the 90 percent-complete plans and specifications to City for review in accordance with paragraph 1A of this agreement. BCWD will ensure that plans and specifications and the Project, when constructed, are compatible with the Easements and this agreement.

B. As between the Parties, BCWD will obtain all necessary permits, licenses and approvals, including approval of a wetland replacement plan as necessary, and will ensure that the Project is completed in accordance with applicable law and regulatory standards and criteria.

C. BCWD will implement the Project as follows:

i. BCWD will prepare or have prepared on its behalf construction documents and will ensure that such documents provide for the restoration of the Outlot and Easements in accordance with the Easements and this agreement;

ii. BCWD will contract, in accordance with applicable law, for the construction of the Project. BCWD will require that the contractor for the Project name City as an additional insured for general liability and provide a certificate showing same prior to construction;

iii. BCWD, or the BCWD engineer on BCWD's behalf, will oversee the construction of the Project. BCWD may adjust the plans and specifications for the Project during construction, as long as the revised plans do not require BCWD to exceed the scope of the rights granted under this agreement;

iv. On completion of construction of the Project, BCWD will restore the access, construction and maintenances areas of the Outlot and Easements to a safe and functional condition, consistent with the Easements. In addition, on completion of construction of the Project and during the effective period of this agreement,

BCWD will operate and maintain the Project, contingent on City's facilitating reasonable access for such purposes as provided herein and in coordination with City's maintenance of the Facilities. On termination of this agreement, BCWD will ensure that the Project site is restored to a condition consistent with the use of the Outlot and Easements.

D. Until completion of construction, if BCWD, in its judgment, should decide that the Project is infeasible, BCWD, at its option, may declare the agreement rescinded and annulled. If BCWD so declares, all obligations herein, performed or not, will be voided; BCWD will return the Outlot and Easements materially to their prior condition or to a condition agreed on by City and BCWD.

3. COSTS. BCWD will be responsible for all costs of design and construction of the Project and the costs of the production of publicity, education and outreach materials related to the Project. BCWD will be responsible for the costs and fees associated with complying with regulatory requirements applicable to the Project, including the costs of any wetland replacement required by law, except that City will assess no fee to BCWD for City permits required for the Project, if any. BCWD will be responsible for the costs of maintenance – and, if necessary, reconstruction in whole or part – of the Project. City is and will remain responsible for the cost of maintenance of the Facilities during the term of and after termination of this agreement. Each of the Parties will bear its own administrative costs of fulfilling its responsibilities and obligations under this agreement.

4. PUBLICITY AND ENDORSEMENT. BCWD and City will collaborate on the development of educational and informational signage pertinent to the Project, and BCWD, at its cost, may develop, produce and distribute educational, outreach and publicity materials related to the Project, and may install, maintain, replace or remove signage on the Outlot related to the Project. All such signage and materials, whether produced by BCWD or City, will include acknowledgement of the Clean Water Legacy funding provided for the Project in accordance with Laws of Minnesota 2009, Chapter 172, Article 5, Section 10. For purposes of this paragraph, "publicity" includes notices, informational printed materials, press releases, research reports, signs and other public notices prepared by or on behalf of BCWD.

5. INDEPENDENT RELATIONSHIP; LIABILITY. This agreement does not create a joint powers board or organization within the meaning of Minnesota Statutes section 471.59. Each party agrees that it will be responsible only for its own acts and the results thereof to the extent authorized by the law and will not be responsible for the acts or omissions of the other party and the results thereof. This agreement creates no right in and waives no immunity, defense or liability limitation with respect to any third party. As between the Parties, only contract remedies are available for a breach of this agreement.

City and BCWD enter this agreement solely for the purposes of construction and maintenance of the Project to improve water quality in Brown's Creek and McKusick Lake. BCWD does not have, has not had, and will not be deemed to have acquired by entry into or performance under this agreement, any form of interest or ownership in or to any portion of the Outlot or Easements. BCWD does not exercise, has not exercised, and will not by entry into or performance under this agreement be deemed to have exercised, any form of control over the use, operation or

management of any portion of the Outlot or Easements or property adjacent to the Project prior to the commencement of construction of the Project, so as to have rendered BCWD a potentially responsible party for any contamination under state or federal law.

7. TERM AND TERMINATION. This agreement becomes effective when fully executed. The agreement will remain in force for 10 years, and will renew automatically for an additional five-year term and renew again every five years on the anniversary of the first renewal unless terminated by mutual agreement of the Parties or otherwise in accordance with the terms of this agreement. Any responsibility or obligation that has come into being before expiration, specifically including obligations under sections 3 and 5 above, will survive expiration.

8. COMPLETE AGREEMENT. This agreement, as it may be amended in writing, constitutes the entire agreement between the Parties. Any amendment to this agreement must be in writing and will not be effective until it has been executed and approved by the same parties who executed and approved the original agreement or their successors in office.

9. NOTICE; COORDINATION. The Parties designate the following authorized representatives, each to serve as the liaison to the other party for purposes of coordinating inspection, construction oversight and maintenance of the Project as provided in this agreement. Any written communication required under this agreement will be addressed to the other party as follows, except that either party may change its address for notice by so notifying the other party in writing:

To City: Director
Public Works/Engineering
City of Stillwater
Stillwater MN 55155-4025

To BCWD: Administrator
Brown's Creek Watershed District
1380 West Frontage Road, Hwy 36
Stillwater, MN 55082

10. WAIVERS. The waiver by City or BCWD of any breach or failure to comply with any provision of this agreement by the other party will not be construed as nor will it constitute a continuing waiver of such provision or a waiver of any other breach of or failure to comply with any other provision of this agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement, intending to be legally bound.

BROWN'S CREEK WATERSHED DISTRICT,
a political subdivision of the State of Minnesota

Craig J Leiser
By Craig Leiser
Its President
Dated: 3/11/13

APPROVED AS TO FORM
AND EXECUTION

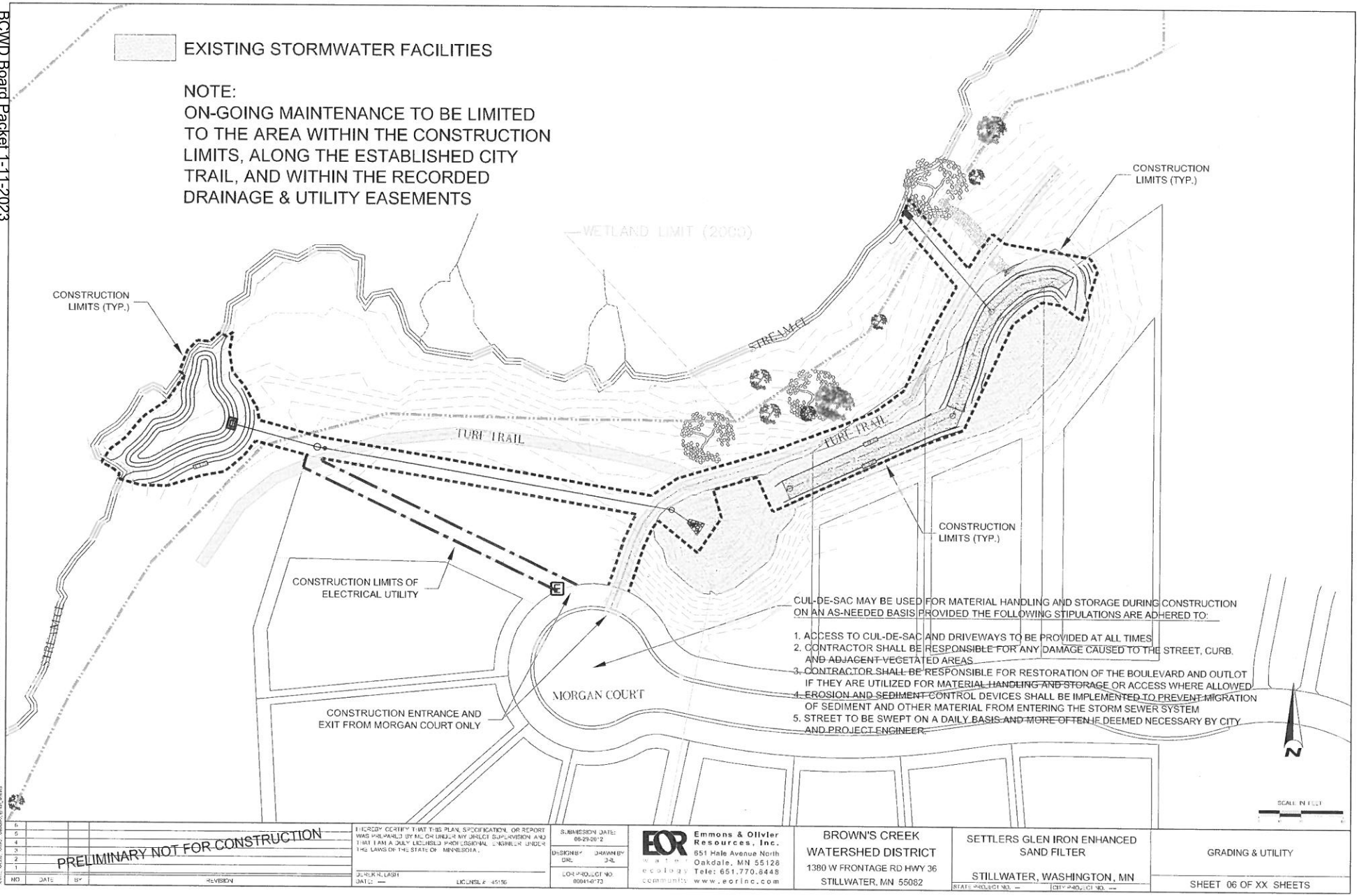
_____
BCWD Counsel

CITY OF STILLWATER,
a home rule charter city

_____
By Ken Harycki
Its Mayor
Dated: February 19, 2013

APPROVED AS TO FORM
AND EXECUTION

_____
City Attorney



NO	DATE	BY	REVISION
6			
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1			

PRELIMINARY NOT FOR CONSTRUCTION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

JENNIFER L. LASH
DATE: —
LICENSE # 45156

SUBMISSION DATE: 08-29-2012
DESIGNED BY: DRL
DRAWN BY: JHL
COR PROJECT NO: 0064140-73

Emmons & Olivier Resources, Inc.
651 Hale Avenue North
Oakdale, MN 55128
Tele: 651.770.8448
www.eorinc.com

BROWN'S CREEK WATERSHED DISTRICT
1380 W FRONTAGE RD HWY 36
STILLWATER, MN 55082

SETTLERS GLEN IRON ENHANCED SAND FILTER
STILLWATER, WASHINGTON, MN
STATE PROJECT NO. —
CITY PROJECT NO. —

GRADING & UTILITY

SHEET 06 OF XX SHEETS

ENTERED IN TRANSFER RECORD
WASHINGTON COUNTY, MINNESOTA
November 19, 2004
MOLLY F. O'ROURKE, AUDITOR-TREASURER
BY Kristi M. Hoar
DEPUTY

3480408

Office of the
County Recorder
Washington County, MN

Certified filed and/or recorded on:
2004/11/19 2:34:00 PM
3480408

Cindy Kemmann
County Recorder
By Cindy Kemmann

19.50
2.50

DECLARATION FOR CREATION AND MAINTENANCE OF TRAIL EASEMENT

Return to STEWART TITLE-JW 105707

This Declaration for Creation and Maintenance of Trail Easement (sometimes hereinafter referred to as "Declaration") is made effective this 18 day of November, 2004, between U.S. Home Corporation, a Delaware corporation (hereinafter referred to as "U.S. Home"), and the City of Stillwater, a Minnesota municipal corporation (hereinafter referred to as "City").

WHEREAS, U.S. Home is the owner of certain real property located in Washington County, Minnesota, legally described on Exhibit A attached hereto and incorporated herein (hereinafter referred to as the "Burdened Property"); and

WHEREAS, U.S. Home and City desire, as of this date, to create the trail easement as hereinafter set forth.

NOW, THEREFORE, the undersigned, U.S. Home Corporation, a Delaware corporation, hereby declares that the Burdened Property shall be held, sold and conveyed subject to the following easements, covenants, conditions, agreements and restrictions which are for the purpose of providing and maintaining certain trail facilities upon the Burdened Property for the benefit of the Benefited Parties. The easement which is hereby created shall run with the land, shall be binding upon and run with the land affected, and shall be binding upon all parties having any right, title or interest in the Burdened Property so described, or any part thereof, their heirs, successors and assigns.

DEFINITIONS

1. Burdened Owner. One or more persons or entities holding a fee simple interest in the Burdened Property described on Exhibit A. As of the date of this Declaration, U.S. Home Corporation, a Delaware corporation, is the owner of the Burdened Property.

2. Benefited Parties. The city and members of the public at large.

3. Trail Easement Area. The real property legally described on Exhibit B and graphically depicted on Exhibit C, both attached hereto and incorporated herein.

4. Trail Easement. The right to construct, reconstruct, maintain and repair the trail facilities over and across the Trail Easement Area for the purposes of pedestrian traffic, specifically excluding motor vehicle traffic and/or parking, except as granted below.

COVENANTS FOR CONSTRUCTION, RECONSTRUCTION, MAINTENANCE AND REPAIR

1. Construction by U.S. Home. U.S. Home agrees to construct the trail facilities as necessary to utilize the Trail Easement and as are required by City upon the Trail Easement Area.

2. Construction and Repair by City. Subject to the initial construction of trail facilities within the Trail Easement Area by U.S. Home, the city shall be responsible for the construction, reconstruction, maintenance and repair of the trail facilities located within the Trail Easement Area. In furtherance thereof and notwithstanding anything contained herein to the contrary, the City, its employees and/or agents shall have the right to enter into the Trail Easement Area with motorized vehicles.

EASEMENT

1. Trail Easement. The Burdened Property shall be subject to and burdened by the right of Benefited Parties to pass over and utilize the trail facilities as may be established by U.S. Home upon the Trail Easement Area. No motor vehicle traffic and/or parking rights are hereby granted, except to the extent necessary to comply with the Construction and Repair covenants above.

2. Interference with Easement. No obstruction which would prevent, restrict or otherwise inhibit the passage of pedestrians or maintenance equipment over any portion of the Trail Easement Area shall be erected, condoned or permitted to endure by the Burdened Owner, nor shall any other conduct, passive or affirmative, be permitted which would in any manner restrict the easement rights granted pursuant hereto.

MISCELLANEOUS

1. Restriction. The Burdened Owner, its successors or assigns, shall not grant any easement for the purpose set forth in this Declaration for the benefit of any other real property or other person or entity upon the Trail Easement Area.

2. Effect. The easements, covenants, conditions, restrictions and other provisions herein contained shall be perpetually binding and enforceable upon the Burdened Property herein described, its respective owners, heirs, successors and assigns forever and shall attach to and run with the land.

3. Severability. Invalidation of any one or more of the provisions herein contained shall not in any way affect the validity of the others, which shall remain in full force and effect.

IN WITNESS WHEREOF, the undersigned have caused this instrument to be executed as of the date and year first above written.

U.S. HOME CORPORATION, a
Delaware corporation

By: _____
John J. Liberacki
Its: Vice President

CITY OF STILLWATER, a
Minnesota municipal corporation

By: _____
Its: Mayor

STATE OF MINNESOTA)
) ss:
COUNTY OF HENNEPIN)

The foregoing was acknowledged before me this 17th day of November, 2004, by John J. Liberacki, Vice President of U.S. Home Corporation, a corporation under the laws of Delaware, on behalf of the corporation.

MELISSA REGAN
NOTARY PUBLIC – MINNESOTA
MY COMMISSION EXPIRES 1-31-09

_____
Notary Public

STATE OF MINNESOTA)
WASHINGTON) ss:
COUNTY OF [redacted])

The foregoing was acknowledged before me this 17th day of November, 2004, by Jay L. Kimble, the Mayor of the City of Stillwater, a municipal corporation under the laws of Minnesota, on behalf of the corporation.

_____
Notary Public

SUSAN L. O'BRIEN-MOORE
NOTARY PUBLIC
My Commission Expires 1-31-2005

THIS DOCUMENT WAS DRAFTED BY:
Brett A. Perry, Esq.
Messerli & Kramer P.A.
1800 Fifth Street Towers
150 South Fifth Street
Minneapolis, MN 55402
(612) 672-3600

EXHIBIT A

Burdened Property Legal Description

Lots 1 through 2, inclusive, Block 1;
All in Settlers Glen 5th Addition, Washington County, Minnesota.

EXHIBIT B

Trail Easement Area Legal Description

An easement for trail purposes over, under and across the following described property:

Lots 1 and 2, Block 1, Settlers Glen 5th Addition, according to the recorded plat thereof, Washington County, Minnesota.

Said easement lies northwesterly of the following described line:

Beginning on a point on the west line of said Lot 1 distant 5 feet south of the northwest corner thereof; thence northeasterly to a point on the east line of said Lot 1 distant 26 feet south of the northeast corner of said Lot 1; thence northeasterly to a point on the northerly line of said Lot 2 distant 36 feet northeasterly of said northeast corner of said Lot 1 and said line there terminating.

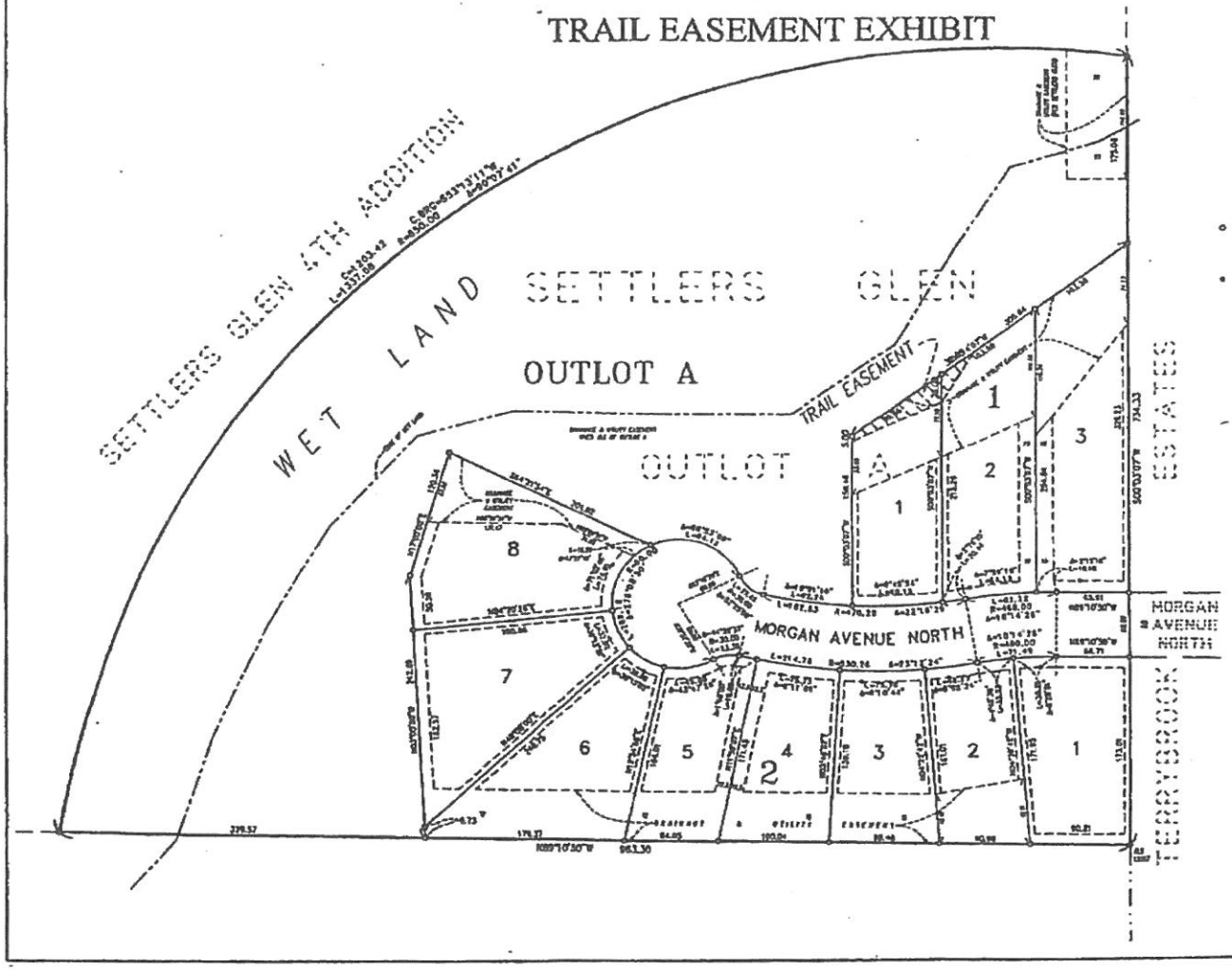
EXHIBIT C

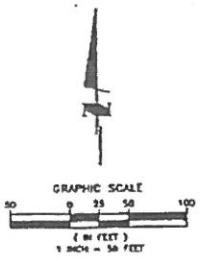
Trail Easement Area Graphic Depiction

588645.1

SETTLERS GLEN 5TH ADDITION

TRAIL EASEMENT EXHIBIT





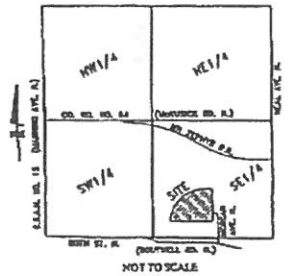
- DENOTES SET, 1/2 INCH BY 14 INCH IRON PIPE WITH PLASTIC CAP INSCRIBED R.L.S. 17233. THESE MONUMENTS WILL BE PLACED IN THE GROUND AS SHOWN WITHIN ONE YEAR AFTER THE RECORDING DATE OF THIS PLAT.
- DENOTES FOUND, 1/2 INCH BY 14 INCH IRON PIPE WITH PLASTIC CAP INSCRIBED R.L.S. 10338, UNLESS OTHERWISE SHOWN

THE ORIENTATION OF THIS BEARING SYSTEM IS ASSUMED.

DRAINAGE AND UTILITY EASEMENTS ARE SHOWN THUS:

BEING 5 FEET IN WIDTH, UNLESS OTHERWISE INDICATED, AND ADJOINING LOT LINES, AND 10 FEET IN WIDTH, UNLESS OTHERWISE INDICATED, AND ADJOINING RIGHT-OF-WAY LINES AND REAR LOT LINES, AS SHOWN ON THE PLAT.

VICINITY MAP
SEC. 19, T. 30 N., R. 20 W.

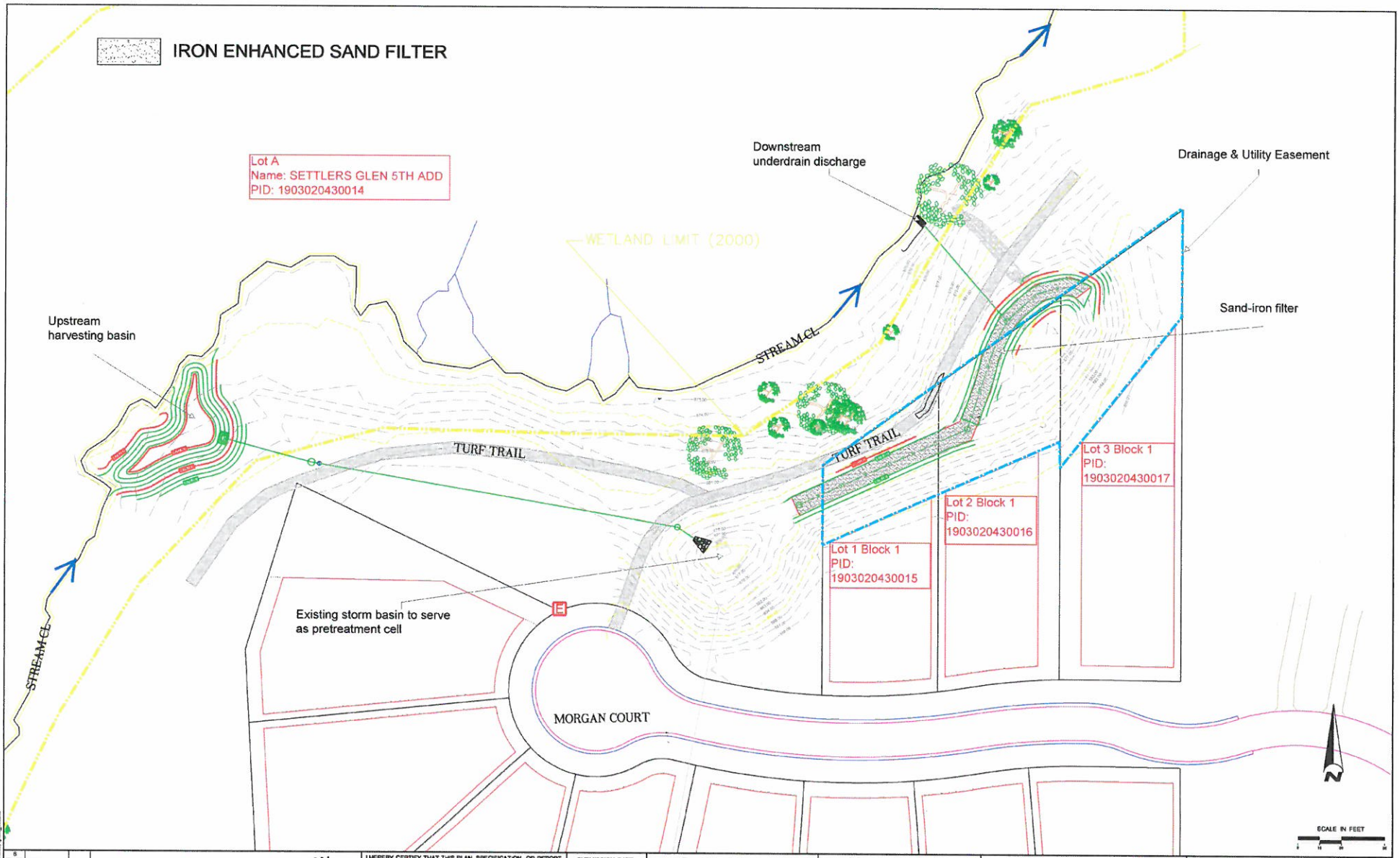


NOT TO SCALE

McCOMBS FRANK ROOS ASSOCIATES, INC.
ENGINEERS AND LAND SURVEYORS

TH01439 DTP 1/23/04

SHEET 2 OF 2 SHEETS



PRELIMINARY NOT FOR CONSTRUCTION

NO	DATE	BY	REVISION
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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DEREK R. LASH
DATE: —
LICENSE # 45156

SUBMISSION DATE: 06-29-2012
DESIGN BY: DRL
DRAWN BY: DRL
EOR PROJECT NO. 00041-0173

Emmons & Olivier Resources, Inc.
651 Hale Avenue North
Oakdale, MN 55128
Tele: 651.770.8448
www.eorinc.com

BROWN'S CREEK WATERSHED DISTRICT
1380 W FRONTAGE RD HWY 36
STILLWATER, MN 55082

SETTLERS GLEN IRON ENHANCED SAND FILTER
STILLWATER, WASHINGTON, MN
STATE PROJECT NO. — | CITY PROJECT NO. —

GRADING & UTILITY

SHEET 06 OF XX SHEETS

ATTACHMENT 2

Project Name |	Settlers Glen Iron-Enhanced Sand Filter	**Date** |	11/21/2022
To / Contact info |	Karen Kill, BCWD Administrator		
Cc / Contact info |	Ryan Fleming, PE		
From / Contact info |	Stu Grubb, PG; Matt Hegland, GIT		
Regarding |	Sediment analysis and disposal options		

Background

Sediment removed from stormwater ponds must be analyzed to determine suitable disposal options. EOR collected and analyzed soils samples from the settling pond in accordance with the procedures shown in the MPCA guidance document "Managing Stormwater Sediment Best Management Practices Guidance" (May 2017).

Fieldwork and Lab Analyses

Brian Rucker collected the samples on November 2, 2022. Sample 1 was collected at the inlet to the filter and Sample 2 was collected at the outlet from the filter. Samples were collected with a PVC suction sampler.

Sediment samples were delivered to Pace Analytical Labs for analysis of PAH's (extended list), copper, and arsenic. Lab reports and analytical results are attached.

Results and Discussion

Laboratory analytical results are shown in Table 1. The results were compared to residential and industrial soil reference values (SRV's) published by MPCA. The arsenic concentrations of both samples were above the SRV's, and the PAH Equivalents were well above the SRV for Sample 2. Because the concentrations exceed the residential SRV's for one or more analyte, the sediment is a regulated solid waste. The MPCA guidance states the material should be sent to a Municipal Solid Waste facility, or a landfill with a liner and leachate collection system.

Phosphorous was analyzed to determine the quantity of phosphorous removed by the sediment basin. Phosphorus is not considered hazardous to human health, so no SRV has been established.

Table 1 – Analytical Concentrations and Residential Soil Reference Values (SRV)

Analyte	Sample 1 (Upstream)	Sample 2 (Downstream)	SRV
Arsenic (mg/kg)	16.9	16.2	9
Copper (mg/kg)	17.1	17.9	100
PAH (BAP Equivalents)	0.842	7.596	2
Phosphorous (mg/kg)	2630	2520	Not applicable

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

November 07, 2022

Brian Rucker
Emmons & Oliver Recources
1919 University Ave W
Suite 300
Saint Paul, MN 55128

RE: Project: Sediment
Pace Project No.: 10631212

Dear Brian Rucker:

Enclosed are the analytical results for sample(s) received by the laboratory on October 26, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Duluth, MN
- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Yeng Ozawa
yeng.ozawa@pacelabs.com
(612)607-1700
Project Manager

Enclosures

cc: Accounting, Emmons & Oliver Resources
Beth Clubb, Emmons & Olivier Resources

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

CERTIFICATIONS

Project: Sediment
Pace Project No.: 10631212

Pace Analytical Services, LLC - Minneapolis MN

1700 Elm Street SE, Minneapolis, MN 55414
A2LA Certification #: 2926.01*
1800 Elm Street SE, Minneapolis, MN 55414--Satellite Air Lab
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009*
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014*
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605*
Georgia Certification #: 959
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086*
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064*
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137*
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240*
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081*
New Jersey Certification #: MN002
New York Certification #: 11647*
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Ohio VAP Certification (1800) #: CL110*
Oklahoma Certification #: 9507*
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001*
Pennsylvania Certification #: 68-00563*
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192*
Utah Certification #: MN00064*
Vermont Certification #: VT-027053137
Virginia Certification #: 460163*
Washington Certification #: C486*
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01
USDA Permit #: P330-19-00208
*Please Note: Applicable air certifications are denoted with an asterisk (*).

Pace Analytical Services, LLC - Duluth MN

4730 Oneota Street, Duluth, MN 55807
Minnesota Certification #: 027-137-152
Minnesota Dept of Ag Approval: via Minnesota 027-137-152
Minnesota Petrofund Registration #: 1240
Montana Certification #: CERT0102
Nevada Certification #: MN00037
North Dakota Certification #: R-105
Wisconsin Certification #: 999446800
Wisconsin Dept of Ag Certification: 480341

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE SUMMARY

Project: Sediment
Pace Project No.: 10631212

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10631212001	**Sample 1-(Upstream)**	Solid	10/26/22 10:30	10/26/22 12:00
10631212002	**Sample 2-(Downstream)**	Solid	10/26/22 10:31	10/26/22 12:00

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

SAMPLE ANALYTE COUNT

Project: Sediment
Pace Project No.: 10631212

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10631212001	**Sample 1-(Upstream)**	EPA 365.1	DS3	1	PASI-DU
		EPA 6010D	IP	2	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E by SIM	SP2	18	PASI-M
		EPA 8270E by SIM	KJ3	39	PASI-M
10631212002	**Sample 2-(Downstream)**	EPA 365.1	DS3	1	PASI-DU
		EPA 6010D	IP	2	PASI-M
		ASTM D2974	JDL	1	PASI-M
		EPA 8270E by SIM	SP2	18	PASI-M
		EPA 8270E by SIM	KJ3	39	PASI-M

PASI-DU = Pace Analytical Services - Duluth, MN
PASI-M = Pace Analytical Services - Minneapolis

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Sediment
Pace Project No.: 10631212

Sample: Sample 1-(Upstream) **Lab ID: 10631212001** Collected: 10/26/22 10:30 Received: 10/26/22 12:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
365.1 Phos, Total Solids DU	Analytical Method: EPA 365.1 Preparation Method: SM 4500-P B Pace Analytical Services - Duluth, MN							
Phosphorus	**2630**	mg/kg	38.0	5	11/02/22 15:10	11/03/22 16:25	7723-14-0	P6
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Minneapolis							
Arsenic	**16.9**	mg/kg	2.8	1	11/02/22 16:58	11/03/22 13:39	7440-38-2	
Copper	**17.1**	mg/kg	1.4	1	11/02/22 16:58	11/03/22 13:39	7440-50-8	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974 Pace Analytical Services - Minneapolis							
Percent Moisture	**66.4**	%	0.10	1		10/31/22 15:20		N2
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Minneapolis							
Acenaphthene	ND	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	83-32-9	
Acenaphthylene	ND	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	208-96-8	
Anthracene	**35.0**	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	120-12-7	
Benzo(a)anthracene	**108**	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	56-55-3	
Benzo(a)pyrene	**117**	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	50-32-8	
Benzo(b)fluoranthene	**162**	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	205-99-2	
Benzo(g,h,i)perylene	**89.4**	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	191-24-2	
Benzo(k)fluoranthene	**66.9**	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	207-08-9	
Chrysene	**120**	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	53-70-3	
Fluoranthene	**236**	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	206-44-0	
Fluorene	ND	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	86-73-7	
Indeno(1,2,3-cd)pyrene	**95.7**	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	193-39-5	
Naphthalene	ND	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	91-20-3	
Phenanthrene	**103**	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	85-01-8	
Pyrene	**174**	ug/kg	29.7	1	10/27/22 09:53	10/28/22 20:56	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	77	%.	59-125	1	10/27/22 09:53	10/28/22 20:56	321-60-8	
p-Terphenyl-d14 (S)	82	%.	65-125	1	10/27/22 09:53	10/28/22 20:56	1718-51-0	
8270E MSSV CPAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3550C Pace Analytical Services - Minneapolis							
Acenaphthene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	83-32-9	
Acenaphthylene	**35.9**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	208-96-8	
Anthracene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	120-12-7	
Benzo(a)anthracene	**176**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	56-55-3	
Benzo(a)pyrene	**233**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	50-32-8	
Benzo(e)pyrene	**146**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	192-97-2	
Benzo(g,h,i)perylene	**138**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	191-24-2	
Benzofluoranthenes (Total)	**393**	ug/kg	88.7	1	10/28/22 12:48	11/01/22 01:55		N2
Carbazole	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	86-74-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Sediment
Pace Project No.: 10631212

Sample: Sample 1-(Upstream) **Lab ID: 10631212001** Collected: 10/26/22 10:30 Received: 10/26/22 12:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270E MSSV CPAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3550C Pace Analytical Services - Minneapolis							
2-Chloronaphthalene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	91-58-7	
Chrysene	**209**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	218-01-9	
Dibenz(a,h)acridine	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	226-36-8	
Dibenz(a,h)anthracene	**33.0**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	53-70-3	
Dibenz(a,j)acridine	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	224-42-0	
Dibenzo(a,e)pyrene	**78.9**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	192-65-4	
Dibenzo(a,h)pyrene	**43.8**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	189-64-0	
Dibenzo(a,i)pyrene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	189-55-9	
Dibenzo(a,l)pyrene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	191-30-0	
7H-Dibenzo(c,g)carbazole	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	194-59-2	
Dibenzofuran	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	132-64-9	
7,12-Dimethylbenz(a)anthracene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	57-97-6	
Fluoranthene	**365**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	206-44-0	
Fluorene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	86-73-7	
Indeno(1,2,3-cd)pyrene	**143**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	193-39-5	
3-Methylcholanthrene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	56-49-5	
5-Methylchrysene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	3697-24-3	
1-Methylnaphthalene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	90-12-0	
2-Methylnaphthalene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	91-57-6	
Naphthalene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	91-20-3	
5-Nitroacenaphthene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	602-87-9	
6-Nitrochrysene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	7496-02-8	
2-Nitrofluorene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	607-57-8	N2
1-Nitropyrene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	5522-43-0	N2
4-Nitropyrene	ND	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	57835-92-4	N2
Perylene	**54.8**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	198-55-0	
Phenanthrene	**120**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	85-01-8	
Pyrene	**331**	ug/kg	29.6	1	10/28/22 12:48	11/01/22 01:55	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	44	%.	43-125	1	10/28/22 12:48	11/01/22 01:55	321-60-8	
p-Terphenyl-d14 (S)	42	%.	40-125	1	10/28/22 12:48	11/01/22 01:55	1718-51-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Sediment
Pace Project No.: 10631212

Sample: Sample 2-(Downstream) **Lab ID: 10631212002** Collected: 10/26/22 10:31 Received: 10/26/22 12:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
365.1 Phos, Total Solids DU	Analytical Method: EPA 365.1 Preparation Method: SM 4500-P B Pace Analytical Services - Duluth, MN							
Phosphorus	**2520**	mg/kg	47.2	5	11/02/22 15:10	11/03/22 16:29	7723-14-0	
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3050B Pace Analytical Services - Minneapolis							
Arsenic	**16.2**	mg/kg	3.8	1	11/02/22 16:58	11/03/22 13:50	7440-38-2	
Copper	**17.9**	mg/kg	1.9	1	11/02/22 16:58	11/03/22 13:50	7440-50-8	
Dry Weight / %M by ASTM D2974	Analytical Method: ASTM D2974 Pace Analytical Services - Minneapolis							
Percent Moisture	**74.6**	%	0.10	1		10/31/22 15:21		N2
8270E MSSV PAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3546 Pace Analytical Services - Minneapolis							
Acenaphthene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	83-32-9	
Acenaphthylene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	208-96-8	
Anthracene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	120-12-7	
Benzo(a)anthracene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	56-55-3	
Benzo(a)pyrene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	50-32-8	
Benzo(b)fluoranthene	**65.7**	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	205-99-2	
Benzo(g,h,i)perylene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	191-24-2	
Benzo(k)fluoranthene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	207-08-9	
Chrysene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	218-01-9	
Dibenz(a,h)anthracene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	53-70-3	
Fluoranthene	**161**	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	206-44-0	
Fluorene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	86-73-7	
Indeno(1,2,3-cd)pyrene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	193-39-5	
Naphthalene	ND	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	91-20-3	
Phenanthrene	**121**	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	85-01-8	
Pyrene	**103**	ug/kg	55.5	1	10/27/22 09:53	10/28/22 21:19	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	77	%.	59-125	1	10/27/22 09:53	10/28/22 21:19	321-60-8	
p-Terphenyl-d14 (S)	79	%.	65-125	1	10/27/22 09:53	10/28/22 21:19	1718-51-0	
8270E MSSV CPAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3550C Pace Analytical Services - Minneapolis							
Acenaphthene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	83-32-9	
Acenaphthylene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	208-96-8	
Anthracene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	120-12-7	
Benzo(a)anthracene	**123**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	56-55-3	
Benzo(a)pyrene	**141**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	50-32-8	
Benzo(e)pyrene	**92.6**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	192-97-2	
Benzo(g,h,i)perylene	**91.1**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	191-24-2	
Benzofluoranthenes (Total)	**245**	ug/kg	117	1	10/28/22 12:48	11/04/22 15:05		N2
Carbazole	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	86-74-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

ANALYTICAL RESULTS

Project: Sediment
Pace Project No.: 10631212

Sample: Sample 2-(Downstream) **Lab ID: 10631212002** Collected: 10/26/22 10:31 Received: 10/26/22 12:00 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270E MSSV CPAH by SIM	Analytical Method: EPA 8270E by SIM Preparation Method: EPA 3550C Pace Analytical Services - Minneapolis							
2-Chloronaphthalene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	91-58-7	
Chrysene	**137**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	218-01-9	
Dibenz(a,h)acridine	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	226-36-8	
Dibenz(a,h)anthracene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	53-70-3	
Dibenz(a,j)acridine	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	224-42-0	
Dibenzo(a,e)pyrene	**296**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	192-65-4	
Dibenzo(a,h)pyrene	**417**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	189-64-0	
Dibenzo(a,i)pyrene	**211**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	189-55-9	
Dibenzo(a,l)pyrene	**83.1**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	191-30-0	
7H-Dibenzo(c,g)carbazole	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	194-59-2	
Dibenzofuran	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	132-64-9	
7,12-Dimethylbenz(a)anthracene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	57-97-6	
Fluoranthene	**269**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	206-44-0	
Fluorene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	86-73-7	
Indeno(1,2,3-cd)pyrene	**93.5**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	193-39-5	
3-Methylcholanthrene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	56-49-5	
5-Methylchrysene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	3697-24-3	
1-Methylnaphthalene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	90-12-0	
2-Methylnaphthalene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	91-57-6	
Naphthalene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	91-20-3	
5-Nitroacenaphthene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	602-87-9	
6-Nitrochrysene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	7496-02-8	v1
2-Nitrofluorene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	607-57-8	N2
1-Nitropyrene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	5522-43-0	N2,v1
4-Nitropyrene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	57835-92-4	N2,v1
Perylene	ND	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	198-55-0	
Phenanthrene	**126**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	85-01-8	
Pyrene	**234**	ug/kg	39.0	1	10/28/22 12:48	11/04/22 15:05	129-00-0	
Surrogates								
2-Fluorobiphenyl (S)	45	%.	43-125	1	10/28/22 12:48	11/04/22 15:05	321-60-8	
p-Terphenyl-d14 (S)	42	%.	40-125	1	10/28/22 12:48	11/04/22 15:05	1718-51-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Sediment
Pace Project No.: 10631212

QC Batch: 850971
QC Batch Method: SM 4500-P B
Analysis Method: EPA 365.1
Analysis Description: 3651 Phos, Total Solids DU
Laboratory: Pace Analytical Services - Duluth, MN
Associated Lab Samples: 10631212001, 10631212002

METHOD BLANK: 4500182 Matrix: Solid
Associated Lab Samples: 10631212001, 10631212002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Phosphorus	mg/kg	ND	2.5	11/03/22 15:13	

LABORATORY CONTROL SAMPLE: 4500183

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/kg	25	26.9	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4500184 4500185

Parameter	Units	10631027003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphorus	mg/kg	221	1370	1340	1770	1700	113	110	80-120	4	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4500186 4500187

Parameter	Units	10631212001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphorus	mg/kg	2630	289	301	3050	3030	144	134	80-120	0	10	P6

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Sediment
Pace Project No.: 10631212

QC Batch: 849768
QC Batch Method: EPA 3050B
Analysis Method: EPA 6010D
Analysis Description: 6010D Solids
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10631212001, 10631212002

METHOD BLANK: 4494238 Matrix: Solid
Associated Lab Samples: 10631212001, 10631212002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	ND	0.92	11/03/22 13:35	
Copper	mg/kg	ND	0.46	11/03/22 13:35	

LABORATORY CONTROL SAMPLE: 4494239

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	49.7	45.9	92	80-120	
Copper	mg/kg	49.7	49.1	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4494240 4494241

Parameter	Units	10631212001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	16.9	139	147	130	136	81	81	75-125	5	20	
Copper	mg/kg	17.1	139	147	149	156	95	95	75-125	5	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Sediment
Pace Project No.: 10631212

QC Batch: 850300
QC Batch Method: ASTM D2974
Analysis Method: ASTM D2974
Analysis Description: Dry Weight / %M by ASTM D2974
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10631212001, 10631212002

SAMPLE DUPLICATE: 4497118

Parameter	Units	10631212001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	66.4	63.9	4	30	N2

SAMPLE DUPLICATE: 4497772

Parameter	Units	10631503001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	32.2	32.1	1	30	N2

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Sediment
Pace Project No.: 10631212

QC Batch: 849669
QC Batch Method: EPA 3546
Analysis Method: EPA 8270E by SIM
Analysis Description: 8270E Solid PAH by SIM MSSV
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10631212001, 10631212002

METHOD BLANK: 4493725 Matrix: Solid
Associated Lab Samples: 10631212001, 10631212002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acenaphthene	ug/kg	ND	10.0	10/28/22 11:01	
Acenaphthylene	ug/kg	ND	10.0	10/28/22 11:01	
Anthracene	ug/kg	ND	10.0	10/28/22 11:01	
Benzo(a)anthracene	ug/kg	ND	10.0	10/28/22 11:01	
Benzo(a)pyrene	ug/kg	ND	10.0	10/28/22 11:01	
Benzo(b)fluoranthene	ug/kg	ND	10.0	10/28/22 11:01	
Benzo(g,h,i)perylene	ug/kg	ND	10.0	10/28/22 11:01	
Benzo(k)fluoranthene	ug/kg	ND	10.0	10/28/22 11:01	
Chrysene	ug/kg	ND	10.0	10/28/22 11:01	
Dibenz(a,h)anthracene	ug/kg	ND	10.0	10/28/22 11:01	
Fluoranthene	ug/kg	ND	10.0	10/28/22 11:01	
Fluorene	ug/kg	ND	10.0	10/28/22 11:01	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	10.0	10/28/22 11:01	
Naphthalene	ug/kg	ND	10.0	10/28/22 11:01	
Phenanthrene	ug/kg	ND	10.0	10/28/22 11:01	
Pyrene	ug/kg	ND	10.0	10/28/22 11:01	
2-Fluorobiphenyl (S)	%.	70	59-125	10/28/22 11:01	
p-Terphenyl-d14 (S)	%.	82	65-125	10/28/22 11:01	

LABORATORY CONTROL SAMPLE: 4493726

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acenaphthene	ug/kg	100	90.0	90	60-125	
Acenaphthylene	ug/kg	100	87.9	88	59-125	
Anthracene	ug/kg	100	91.6	92	62-125	
Benzo(a)anthracene	ug/kg	100	87.4	87	64-125	
Benzo(a)pyrene	ug/kg	100	86.2	86	64-125	
Benzo(b)fluoranthene	ug/kg	100	90.1	90	65-125	
Benzo(g,h,i)perylene	ug/kg	100	102	102	66-125	
Benzo(k)fluoranthene	ug/kg	100	92.5	92	66-125	
Chrysene	ug/kg	100	84.5	85	66-125	
Dibenz(a,h)anthracene	ug/kg	100	103	103	67-125	
Fluoranthene	ug/kg	100	83.5	84	65-125	
Fluorene	ug/kg	100	91.5	92	60-125	
Indeno(1,2,3-cd)pyrene	ug/kg	100	102	102	64-125	
Naphthalene	ug/kg	100	75.3	75	48-125	
Phenanthrene	ug/kg	100	83.9	84	62-125	
Pyrene	ug/kg	100	87.0	87	68-125	
2-Fluorobiphenyl (S)	%.			74	59-125	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Sediment
Pace Project No.: 10631212

LABORATORY CONTROL SAMPLE: 4493726

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
p-Terphenyl-d14 (S)	%.			78	65-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4493727 4493728

Parameter	Units	10631245001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acenaphthene	ug/kg	ND	102	102	85.3	74.2	84	73	70-125	14	30	
Acenaphthylene	ug/kg	ND	102	102	83.9	73.2	82	72	30-150	14	30	
Anthracene	ug/kg	ND	102	102	99.3	87.7	98	86	67-125	12	30	
Benzo(a)anthracene	ug/kg	ND	102	102	99.0	88.3	97	86	64-125	11	30	
Benzo(a)pyrene	ug/kg	ND	102	102	102	90.7	100	89	40-137	11	30	
Benzo(b)fluoranthene	ug/kg	ND	102	102	105	94.3	104	92	30-150	11	30	
Benzo(g,h,i)perylene	ug/kg	ND	102	102	119	107	117	104	69-125	11	30	
Benzo(k)fluoranthene	ug/kg	ND	102	102	110	98.0	108	96	48-133	11	30	
Chrysene	ug/kg	ND	102	102	97.7	93.9	96	92	62-125	4	30	
Dibenz(a,h)anthracene	ug/kg	ND	102	102	119	105	117	103	57-125	13	30	
Fluoranthene	ug/kg	ND	102	102	99.8	90.9	98	89	60-125	9	30	
Fluorene	ug/kg	ND	102	102	91.1	80.8	90	79	53-125	12	30	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	102	102	118	106	116	104	49-130	10	30	
Naphthalene	ug/kg	ND	102	102	79.8	65.5	78	64	46-125	20	30	
Phenanthrene	ug/kg	ND	102	102	84.8	73.7	83	72	61-125	14	30	
Pyrene	ug/kg	ND	102	102	97.0	87.2	95	85	58-125	11	30	
2-Fluorobiphenyl (S)	%.						71	60	59-125			
p-Terphenyl-d14 (S)	%.						88	77	65-125			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Sediment
Pace Project No.: 10631212

QC Batch: 850008
QC Batch Method: EPA 3550C
Analysis Method: EPA 8270E by SIM
Analysis Description: 8270E CPAH by SIM MSSV
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 10631212001, 10631212002

METHOD BLANK: 4495364 Matrix: Solid
Associated Lab Samples: 10631212001, 10631212002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	ND	10.0	11/01/22 00:55	
1-Nitropyrene	ug/kg	ND	10.0	11/01/22 00:55	N2
2-Chloronaphthalene	ug/kg	ND	10.0	11/01/22 00:55	
2-Methylnaphthalene	ug/kg	ND	10.0	11/01/22 00:55	
2-Nitrofluorene	ug/kg	ND	10.0	11/01/22 00:55	N2
3-Methylcholanthrene	ug/kg	ND	10.0	11/01/22 00:55	
4-Nitropyrene	ug/kg	ND	10.0	11/01/22 00:55	N2
5-Methylchrysene	ug/kg	ND	10.0	11/01/22 00:55	
5-Nitroacenaphthene	ug/kg	ND	10.0	11/01/22 00:55	
6-Nitrochrysene	ug/kg	ND	10.0	11/01/22 00:55	
7,12-Dimethylbenz(a)anthracene	ug/kg	ND	10.0	11/01/22 00:55	
7H-Dibenzo(c,g)carbazole	ug/kg	ND	10.0	11/01/22 00:55	
Acenaphthene	ug/kg	ND	10.0	11/01/22 00:55	
Acenaphthylene	ug/kg	ND	10.0	11/01/22 00:55	
Anthracene	ug/kg	ND	10.0	11/01/22 00:55	
Benzo(a)anthracene	ug/kg	ND	10.0	11/01/22 00:55	
Benzo(a)pyrene	ug/kg	ND	10.0	11/01/22 00:55	
Benzo(e)pyrene	ug/kg	ND	10.0	11/01/22 00:55	
Benzo(g,h,i)perylene	ug/kg	ND	10.0	11/01/22 00:55	
Benzofluoranthenes (Total)	ug/kg	ND	30.0	11/01/22 00:55	N2
Carbazole	ug/kg	ND	10.0	11/01/22 00:55	
Chrysene	ug/kg	ND	10.0	11/01/22 00:55	
Dibenz(a,h)acridine	ug/kg	ND	10.0	11/01/22 00:55	
Dibenz(a,h)anthracene	ug/kg	ND	10.0	11/01/22 00:55	
Dibenz(a,j)acridine	ug/kg	ND	10.0	11/01/22 00:55	
Dibenzo(a,e)pyrene	ug/kg	ND	10.0	11/01/22 00:55	
Dibenzo(a,h)pyrene	ug/kg	ND	10.0	11/01/22 00:55	
Dibenzo(a,i)pyrene	ug/kg	ND	10.0	11/01/22 00:55	
Dibenzo(a,l)pyrene	ug/kg	ND	10.0	11/01/22 00:55	
Dibenzofuran	ug/kg	ND	10.0	11/01/22 00:55	
Fluoranthene	ug/kg	ND	10.0	11/01/22 00:55	
Fluorene	ug/kg	ND	10.0	11/01/22 00:55	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	10.0	11/01/22 00:55	
Naphthalene	ug/kg	ND	10.0	11/01/22 00:55	
Perylene	ug/kg	ND	10.0	11/01/22 00:55	
Phenanthrene	ug/kg	ND	10.0	11/01/22 00:55	
Pyrene	ug/kg	ND	10.0	11/01/22 00:55	
2-Fluorobiphenyl (S)	%.	70	43-125	11/01/22 00:55	
p-Terphenyl-d14 (S)	%.	94	40-125	11/01/22 00:55	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Sediment
Pace Project No.: 10631212

LABORATORY CONTROL SAMPLE: 4495365

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	100	75.9	76	52-125	
1-Nitropyrene	ug/kg	100	83.0	83	30-131	N2
2-Chloronaphthalene	ug/kg	100	82.6	83	54-125	
2-Methylnaphthalene	ug/kg	100	76.7	77	52-125	
2-Nitrofluorene	ug/kg	100	94.0	94	60-132	N2
3-Methylcholanthrene	ug/kg	100	86.5	86	30-131	
4-Nitropyrene	ug/kg	100	87.1	87	42-135	N2
5-Methylchrysene	ug/kg	100	88.2	88	63-125	
5-Nitroacenaphthene	ug/kg	100	77.5	77	60-128	
6-Nitrochrysene	ug/kg	100	98.3	98	30-143	
7,12-Dimethylbenz(a)anthracene	ug/kg	100	108	108	30-125	
7H-Dibenzo(c,g)carbazole	ug/kg	100	90.8	91	69-125	
Acenaphthene	ug/kg	100	79.7	80	59-125	
Acenaphthylene	ug/kg	100	79.3	79	56-125	
Anthracene	ug/kg	100	86.2	86	62-125	
Benzo(a)anthracene	ug/kg	100	84.5	85	60-125	
Benzo(a)pyrene	ug/kg	100	96.7	97	67-125	
Benzo(e)pyrene	ug/kg	100	99.9	100	64-125	
Benzo(g,h,i)perylene	ug/kg	100	94.7	95	39-129	
Benzofluoranthenes (Total)	ug/kg	300	313	104	67-125	N2
Carbazole	ug/kg	100	84.3	84	66-125	
Chrysene	ug/kg	100	90.0	90	60-125	
Dibenz(a,h)acridine	ug/kg	100	90.9	91	66-125	
Dibenz(a,h)anthracene	ug/kg	100	93.9	94	66-125	
Dibenz(a,j)acridine	ug/kg	100	82.6	83	30-133	
Dibenzo(a,e)pyrene	ug/kg	100	85.4	85	57-125	
Dibenzo(a,h)pyrene	ug/kg	100	96.7	97	59-126	
Dibenzo(a,i)pyrene	ug/kg	100	84.2	84	45-125	
Dibenzo(a,l)pyrene	ug/kg	100	71.0	71	30-125	
Dibenzofuran	ug/kg	100	82.7	83	61-125	
Fluoranthene	ug/kg	100	80.7	81	66-125	
Fluorene	ug/kg	100	83.0	83	63-125	
Indeno(1,2,3-cd)pyrene	ug/kg	100	90.2	90	67-125	
Naphthalene	ug/kg	100	74.3	74	50-125	
Perylene	ug/kg	100	94.3	94	69-125	
Phenanthrene	ug/kg	100	85.0	85	67-125	
Pyrene	ug/kg	100	100	100	62-125	
2-Fluorobiphenyl (S)	%.			84	43-125	
p-Terphenyl-d14 (S)	%.			103	40-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4495366 4495367

Parameter	Units	10631442001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	ug/kg	76.7	127	128	228	235	119	124	37-125	3	30	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA

Project: Sediment
Pace Project No.: 10631212

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 4495366 4495367

Parameter	Units	10631442001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Nitropyrene	ug/kg	<16.5	127	128	151	139	118	109	30-131	8	30	N2
2-Chloronaphthalene	ug/kg	<10.2	127	128	118	136	93	106	48-125	14	30	
2-Methylnaphthalene	ug/kg	43.6J	127	128	172	182	101	108	40-125	5	30	
2-Nitrofluorene	ug/kg	<6.8	127	128	1400	1570	1100	1230	30-150	11	30	M1,N2
3-Methylcholanthrene	ug/kg	<9.0	127	128	270	276	212	216	30-131	2	30	M1
4-Nitropyrene	ug/kg	<15.4	127	128	ND	ND	0	0	30-135		30	M1,N2
5-Methylchrysene	ug/kg	1220	127	128	1720	1680	392	359	30-150	2	30	M1
5-Nitroacenaphthene	ug/kg	<21.6	127	128	185	255	145	199	30-150	32	30	M1,R1
6-Nitrochrysene	ug/kg	<14.3	127	128	ND	ND	0	0	30-143		30	M1
7,12-Dimethylbenz(a)anthracene	ug/kg	347	127	128	630	718	222	291	30-145	13	30	M1
7H-Dibenzo(c,g)carbazole	ug/kg	242	127	128	469	501	179	203	30-125	6	30	M1
Acenaphthene	ug/kg	367	127	128	586	728	172	282	30-139	22	30	M1
Acenaphthylene	ug/kg	70.6	127	128	230	258	125	147	30-125	11	30	M1
Anthracene	ug/kg	1200	127	128	1540	2240	264	813	30-150	37	30	M1,R1
Benzo(a)anthracene	ug/kg	5790	127	128	6480	7810	540	1580	30-150	19	30	M1
Benzo(a)pyrene	ug/kg	6960	127	128	8490	9130	1200	1700	30-150	7	30	M1
Benzo(e)pyrene	ug/kg	7490	127	128	8190	8630	549	891	30-150	5	30	M1
Benzo(g,h,i)perylene	ug/kg	7440	127	128	8120	8770	535	1030	30-150	8	30	M1
Benzofluoranthenes (Total)	ug/kg	14200	382	384	16800	17000	678	747	30-150	2	30	M1,N2
Carbazole	ug/kg	846	127	128	1330	1490	381	503	30-150	11	30	M1
Chrysene	ug/kg	8920	127	128	10300	10700	1070	1420	30-150	4	30	M1
Dibenz(a,h)acridine	ug/kg	<3.9	127	128	676	736	531	576	30-125	8	30	M1
Dibenz(a,h)anthracene	ug/kg	1290	127	128	1840	1970	432	527	30-146	6	30	M1
Dibenz(a,j)acridine	ug/kg	<14.5	127	128	284	322	223	252	30-133	13	30	M1
Dibenzo(a,e)pyrene	ug/kg	2530	127	128	3620	3790	858	989	30-125	5	30	M1
Dibenzo(a,h)pyrene	ug/kg	1400	127	128	1980	2020	457	489	30-126	2	30	M1
Dibenzo(a,i)pyrene	ug/kg	333	127	128	363	341	24	6	30-125	6	30	M1
Dibenzo(a,l)pyrene	ug/kg	177	127	128	360	367	144	149	30-125	2	30	M1
Dibenzofuran	ug/kg	69.1	127	128	202	230	104	126	43-125	13	30	M1
Fluoranthene	ug/kg	13100	127	128	14000	16100	691	2370	30-150	14	30	M1
Fluorene	ug/kg	575	127	128	814	1090	188	405	30-147	29	30	M1
Indeno(1,2,3-cd)pyrene	ug/kg	6110	127	128	6920	7110	635	784	30-150	3	30	M1
Naphthalene	ug/kg	15.3J	127	128	126	133	87	92	37-125	5	30	
Perylene	ug/kg	1540	127	128	2150	2330	482	618	30-150	8	30	M1
Phenanthrene	ug/kg	10600	127	128	10100	12600	-366	1570	30-150	22	30	M1
Pyrene	ug/kg	17800	127	128	16900	18900	-687	911	30-150	11	30	M1
2-Fluorobiphenyl (S)	%.						99	109	43-125			P3
p-Terphenyl-d14 (S)	%.						107	108	40-125			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALIFIERS

Project: Sediment
Pace Project No.: 10631212

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.
P3	Sample extract could not be concentrated to the routine final volume, resulting in elevated reporting limits.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.
R1	RPD value was outside control limits.
v1	The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.

Pace Analytical Services, LLC
1700 Elm Street
Minneapolis, MN 55414
(612)607-1700

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Sediment
Pace Project No.: 10631212

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10631212001	**Sample 1-(Upstream)**	SM 4500-P B	850971	EPA 365.1	851064
10631212002	**Sample 2-(Downstream)**	SM 4500-P B	850971	EPA 365.1	851064
10631212001	**Sample 1-(Upstream)**	EPA 3050B	849768	EPA 6010D	851188
10631212002	**Sample 2-(Downstream)**	EPA 3050B	849768	EPA 6010D	851188
10631212001	**Sample 1-(Upstream)**	ASTM D2974	850300		
10631212002	**Sample 2-(Downstream)**	ASTM D2974	850300		
10631212001	**Sample 1-(Upstream)**	EPA 3546	849669	EPA 8270E by SIM	849951
10631212002	**Sample 2-(Downstream)**	EPA 3546	849669	EPA 8270E by SIM	849951
10631212001	**Sample 1-(Upstream)**	EPA 3550C	850008	EPA 8270E by SIM	850506
10631212002	**Sample 2-(Downstream)**	EPA 3550C	850008	EPA 8270E by SIM	850506

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix

WO# : 10631212

10631212

ALL SH

Company: EOR	Billing Information:
Address: 1919 University Ave W Suite 300	
Report To: Brian Rucker	Email To: BRucker@EORinc.com
Copy To: —	Site Collection Info/Address:
Customer Project Name/Number: —	State: / County/City: / Time Zone Collected: [ ] PT [ ] MT [ ] CT [ ] ET
Phone: Email: 651-890-9495	Site/Facility ID #: / Compliance Monitoring? [ ] Yes [ ] No
Collected By (print): Brian Rucker	Purchase Order #: / Quote #: / DW PWS ID #: / DW Location Code:
Collected By (signature):	Turnaround Date Required: / Immediately Packed on Ice: [ ] Yes [ ] No
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) / Field Filtered (if applicable): [ ] Yes [ ] No Analysis: _____

Container Preservative Type

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	Analyses
X									

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips: _____	
Sample pH Acceptable	Y N NA
pH Strips: _____	
Sulfide Present	Y N NA
Lead Acetate Strips: _____	

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2855440

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: (Y) N NA
Therm ID#: 17
Cooler 1 Temp Upon Receipt: 14.6 oC
Cooler 1 Therm Corr. Factor: -0.0 oC
Cooler 1 Corrected Temp: 14.6 oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
		PACE	10/26/22 12:00
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: _____ of: _____

Sample Condition Upon Receipt

Client Name: EOR

Project #: WO#: 10631212
PM: Y01 Due Date: 11/09/22
CLIENT: EOR

Courier: ☐ FedEx ☐ UPS ☐ USPS ☒ Client ☐ Pace ☐ SpeeDee ☐ Commercial

☐ See Exceptions ENV-FRM-MIN4-0142

Tracking Number: _____

Custody Seal on Cooler/Box Present? ☐ Yes ☒ No **Seals Intact?** ☐ Yes ☒ No **Biological Tissue Frozen?** ☐ Yes ☐ No ☒ N/A

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other **Temp Blank?** ☒ Yes ☐ No

Thermometer: ☐ T1 (0461) ☐ T2 (1336) ☐ T3 (0459) ☐ T4 (0254) ☐ T5 (0178) ☐ T6 (0235) ☒ T7 (0042) ☐ T8 (0775) ☐ 01339252/1710

Type of Ice: ☐ Wet ☐ Blue ☐ Dry ☒ None ☐ Melted

Did Samples Originate in West Virginia? ☐ Yes ☒ No **Were All Container Temps Taken?** ☐ Yes ☐ No ☒ N/A

Temp should be above freezing to 6 °C **Cooler temp Read w/Temp Blank:** 14.6 °C

Correction Factor: TRUE **Cooler Temp Corrected w/temp blank:** 14.6 °C

Average Corrected Temp (no temp blank only): _____ °C
☐ See Exceptions ENV-FRM-MIN4-0142 ☐ 1 Container

USDA Regulated Soil: (☒ N/A, water sample/other: _____) **Date/Initials of Person Examining Contents:** JM 10/26/22

Did samples originate in a quarantine zone within the United States: AL, AR, AZ CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check maps)? ☐ Yes ☐ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

Location (Check one): ☐ Duluth ☒ Minneapolis ☐ Virginia

				COMMENTS
Chain of Custody Present and Filled Out?	☒ Yes	☐ No		1.
Chain of Custody Relinquished?	☒ Yes	☐ No		2.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	3.
Samples Arrived within Hold Time?	☒ Yes	☐ No		4. If fecal: ☐ <8 hrs ☐ >8 hr, <24 ☐ No
Short Hold Time Analysis (<72 hr)?	☐ Yes	☒ No		5. ☐ Fecal Coliform ☐ HPC ☐ Total Coliform/E.coli ☐ BOD/cBOD ☐ Hex Chrom ☐ Turbidity ☐ Nitrate ☐ Nitrite ☐ Orthophos ☐ Other
Rush Turn Around Time Requested?	☐ Yes	☒ No		6.
Sufficient Sample Volume?	☒ Yes	☐ No		7.
Correct Containers Used?	☒ Yes	☐ No	☐ N/A	8.
-Pace Containers Used?	☒ Yes	☐ No		
Containers Intact?	☒ Yes	☐ No		9.
Field Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☒ N/A	10. Is sediment visible in the dissolved container? ☐ Yes ☐ No
Is sufficient information available to reconcile the samples to the COC? Matrix: ☒ Water ☐ Soil ☐ Oil ☐ Other	☒ Yes	☐ No		11. **If no, write ID/Date/Time of container below:** ☐ See Exceptions ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☒ N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO3, H2SO4, <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	☐ Yes	☐ No	☒ N/A	☐ NaOH ☐ HNO3 ☐ H2SO4 ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxins/PFAS (*If adding preservative to a container, it must be added to associated field and equipment blanks--verify with PM first.)	☐ Yes	☐ No	☒ N/A	Positive for Residual Chlorine? ☐ Yes ☐ No ☐ See Exceptions ENV-FRM-MIN4-0142 **pH Paper Lot #**
				Residual Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Headspace in Methyl Mercury Container?	☐ Yes	☐ No	☒ N/A	13.
Extra labels present on soil VOA or WIDRO containers?	☐ Yes	☐ No	☒ N/A	14. ☐ See Exceptions ENV-FRM-MIN4-0142
Headspace in VOA Vials (greater than 6mm)?	☐ Yes	☐ No	☒ N/A	
3 Trip Blanks Present?	☐ Yes	☐ No	☒ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☒ N/A	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: Brian Rucker Date/Time: 10/26/2022

Comments/Resolution: Contacted client to confirm dates/times/requested tests. Tests on Quote all confirmed is needed. Also notified of OOT samples.

Project Manager Review: Yeng Ozawa **Date:** 10/27/2022

NOTE: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled By: JM **Line:** 2

Pace ANALYTICAL SERVICES	DC#_Title: ENV-FRM-MIN4-0142 v02_Sample Condition Upon Receipt (SCUR) Exception Form
	Effective Date: 09/22/2022

Workorder #: _____

No Temp Blank		
Read Temp	Corrected Temp	Average temp

PM Notified of Out of Temp Cooler? ☐ Yes ☐ No

If yes, indicate who was contacted, date and time.
If no, indicate reason why.

_____

Multiple Cooler Project? ☐ Yes ☐ No

If anything is OVER 6.0° C, you MUST document containers in this section HERE

Sample ID not on COC

Tracking Number	Temperature

Out of Temp Sample ID	Container Type	# of Containers
Sample 1 (upstream)	6N	1
Sample 2 - (Downstream)	6N	1

pH Adjustment Log for Preserved Samples

Sample ID	Type Of Preserve	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance After Addition?		Initials
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	
								☐ Yes	☐ No	

Comments:

_____

_____

_____

Qualtrax ID: 52763

1700 Elm Street SE
Minneapolis, MN 55414
Phone: 612-607-1700
Fax: 612-607-6444

Quote Prepared for:

EOR
1919 University Ave WSuite 300
St. Paul, MN 55104

Stu Grubb
(651) 351-1614
grubbss@aol.com

Pace® Contact Information

Account Executive
Jeff Smith
jeff.smith@pacelabs.com

Project Manager

Project Information

Quote Name	00125007 - EOR_sediment analysis_101822	Created Date	10/18/2022
Quote Number	00125007	Expiration Date	12/30/2022
Standard TAT:	10 Business Days	Report Level	II
Project Location	MN		

Minimum Laboratory Fee

$200

Quote Details

Quantity	Method	Matrix	Product	Line Item Description	Sales Price	Sub-Total	Total-Price
2.00	EPA 6010B (ICP)	Solid Only	Arsenic (As)-Each addt'l metal		$20.00	$40.00	$40.00
2.00	EPA 6010B/ 200.7 (ICP)	Solid Only	Copper (Cu)-Each addt'l metal		$20.00	$40.00	$40.00
2.00	EPA 8270SIM	Solid Only	Polynuclear Aromatic Hydrocarbons (PAH) (low level) (soil)		$135.00	$270.00	$270.00
2.00	EPA 8270SIM (cPAH)	Solid Only	Polynuclear Aromatic Hydrocarbons (cPAH) (low level) (soil)		$230.00	$460.00	$460.00
2.00	EPA 365.2	Solid Only	Phosphorus, Total (soil)		$30.00	$60.00	$60.00
2.00	SM 2540G	Solid Only	Percent (%) Moisture/Dry Weight		$5.00	$10.00	$10.00
1.00			Environmental Impact Fee (Per Invoice)		$20.00	$20.00	$20.00
2.00	N/A		Sample Disposal	per sample	$5.00	$10.00	$10.00

Grand-Total	$910.00
Estimated Economic Price Adjustment	$78.26
Grand Total with Surcharge	$988.26

Intra-Regional Chain of Custody

WO#: 10631212

PM: YO1 Due Date: 11/09/22

CLIENT: EOR

Workorder: 10631212 **Workorder Name:** Sediment **Owner Received Date:** 10/26/2022 Due Date: 11/9/2022

Received at:	Send To Lab:
Pace Analytical Minnesota 1700 Elm Street Minneapolis, MN 55414 Phone (612)607-1700	Pace Analytical Duluth 4730 Oneota St. Duluth, MN 55807 Phone (218) 727-6380

Report To:
Yeng Ozawa

JGFU

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Other	EPA 365.1	LAB USE ONLY
1	Sample 1-(Upstream)	PS	10/26/2022 10:30	10631212001	Solid	1	X	
2	Sample 2-(Downstream)	PS	10/26/2022 10:31	10631212002	Solid	1	X	
3								
4								
5								

Transfers	Released By	Date/Time	Received By	Date/Time
1	CSM/Pace	10/27/22 10:30	[signature] 10/27/22	1105
2	[signature] 10/27/22	1445	[signature] 10/27/22	1445
3				
4				

Comments

Cooler Temperature on Receipt 1.9 °C **Custody Seal** (Y) or N **Received on Ice** (Y) or N **Samples Intact** (Y) or N

****In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.*

DC#_Title: ENV-FRM-MIN4-0150 v10_Sample Condition Upon Receipt (SCUR)
Effective Date:

Sample Condition Upon Receipt

Client Name: Pace

Project #: WO#: 10631212

10631212

Courier: ☐ FedEx ☐ UPS ☐ USPS ☐ Client ☒ Pace ☐ SpeeDee ☐ Commercial

☐ See Exceptions ENV-FRM-MIN4-0142

Tracking Number: _____

Custody Seal on Cooler/Box Present? ☒ Yes ☐ No **Seals Intact?** ☒ Yes ☐ No **Biological Tissue Frozen?** ☐ Yes ☐ No ☒ N/A

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other **Temp Blank?** ☒ Yes ☐ No

Thermometer: ☐ T1 (0461) ☐ T2 (1336) ☐ T3 (0459) ☐ T4 (0254) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☒ 01339252/1710

Type of Ice: ☒ Wet ☐ Blue ☐ Dry ☐ None ☐ Melted

Did Samples Originate in West Virginia? ☐ Yes ☒ No **Were All Container Temps Taken?** ☐ Yes ☐ No ☒ N/A

Temp should be above freezing to 6 °C **Cooler temp Read w/Temp Blank:** 1.8 °C

Correction Factor: +0.1 **Cooler Temp Corrected w/temp blank:** 1.9 °C

Average Corrected Temp (no temp blank only): _____ °C

☐ See Exceptions ENV-FRM-MIN4-0142 ☐ 1 Container

USDA Regulated Soil: (☒ N/A, water sample/other: _____)

Date/Initials of Person Examining Contents: 10/27/22 KB

Did samples originate in a quarantine zone within the United States: AL, AR, AZ CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check maps)? ☐ Yes ☒ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.

Location (Check one): ☒ Duluth ☐ Minneapolis ☐ Virginia				**COMMENTS**
Chain of Custody Present and Filled Out?	☒ Yes	☐ No		1.
Chain of Custody Relinquished?	☒ Yes	☐ No		2.
Sampler Name and/or Signature on COC?	☒ Yes	☐ No	☐ N/A	3.
Samples Arrived within Hold Time?	☒ Yes	☐ No		4. If fecal: ☐ <8 hrs ☐ >8 hr, <24 ☐ No
Short Hold Time Analysis (<72 hr)?	☐ Yes	☑ No		5. ☐ Fecal Coliform ☐ HPC ☐ Total Coliform/E.coli ☐ BOD/cBOD ☐ Hex Chrom ☐ Turbidity ☐ Nitrate ☐ Nitrite ☐ Orthophos ☐ Other _____
Rush Turn Around Time Requested?	☐ Yes	☑ No		6.
Sufficient Sample Volume?	☑ Yes	☐ No		7.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	8.
-Pace Containers Used?	☑ Yes	☐ No		
Containers Intact?	☑ Yes	☐ No		9.
Field Filtered Volume Received for Dissolved Tests?	☐ Yes	☐ No	☑ N/A	10. Is sediment visible in the dissolved container? ☐ Yes ☐ No
Is sufficient information available to reconcile the samples to the COC?	☑ Yes	☐ No		11. **If no, write ID/Date/Time of container below:** ☐ See Exceptions ENV-FRM-MIN4-0142
Matrix: ☐ Water ☑ Soil ☐ Oil ☐ Other				
All containers needing acid/base preservation have been checked?	☐ Yes	☐ No	☑ N/A	12. Sample #
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO3, H2SO4, <2pH, NaOH >9 Sulfide, NaOH>10 Cyanide)	☐ Yes	☐ No	☑ N/A	☐ NaOH ☐ HNO3 ☐ H2SO4 ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxins/PFAS (*If adding preservative to a container, it must be added to associated field and equipment blanks--verify with PM first.)	☐ Yes	☐ No	☑ N/A	Positive for Residual Chlorine? ☐ Yes ☐ No ☐ See Exceptions ENV-FRM-MIN4-0142
				pH Paper Lot #
				Residual Chlorine | 0-6 Roll | 0-6 Strip | 0-14 Strip
Headspace in Methyl Mercury Container?	☐ Yes	☐ No	☑ N/A	13.
Extra labels present on soil VOA or WIDRO containers?	☐ Yes	☐ No	☑ N/A	14. ☐ See Exceptions ENV-FRM-MIN4-0142
Headspace in VOA Vials (greater than 6mm)?	☐ Yes	☐ No	☑ N/A	
3 Trip Blanks Present?	☐ Yes	☐ No	☑ N/A	15.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☑ N/A	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION/RESOLUTION **Field Data Required?** ☐ Yes ☐ No

Person Contacted: _____ Date/Time: _____

Comments/Resolution: _____

Project Manager Review: Yeng Ozawa **Date:** 10/28/2022

NOTE: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled By: _____ **Line:** _____

memo

Project Name |	Settlers Glen Iron Enhanced Sand Filter	**Date** |	1/6/2023
To / Contact info |	BCWD Board of Managers		
Cc / Contact info |	Karen Kill, District Administrator		
From / Contact info |	Ryan Fleming, PE		
Regarding |	2023 Scope of Services		

Background

The Settlers Glen Iron-Enhanced Sand Filter has been in operation since 2014. The on-going operation and maintenance of the project involves remote desktop monitoring and alteration of the pump settings based on stream stage and weather conditions, site visits to monitor operation, vegetation, sediment accumulation, erosion, and filter surface condition. EOR also coordinates with the WCD for filter surface maintenance, outflow monitoring, and sampling.

Update

In addition to routine monitoring and maintenance, we anticipate the following maintenance activities in 2023.

1. Pump & lift station performance inspection – This is recommended every other year due to the light duty required for the project (based on pumping frequency, duration, and relatively clean water). EOR's cost estimate includes scheduling and coordinating with the contractor, the inspection by a pump and controls specialist has typically been contracted directly by the District at an approximate cost of $800 (this is not included in EOR's scope below).
2. Filter media sampling & analysis – In 2022, the four effluent samples exceeded 60 to 70 micrograms per liter which may indicate that the iron is approaching the end of its phosphorus binding capacity. EOR will collect four to five samples along the filter bed and analyze the laboratory results for total phosphorus and total iron. A summary memorandum outlining the findings and next steps will be provided.
3. Pump Harvest Pond Maintenance – Sediment deposition has reduced the capacity of the pump harvest pond to an average water depth of one foot. Sediment was removed to restore the pond to design contours in February 2019. Since then, erosion has caused widening and downcutting of the upstream tributary resulting in deposition wherever the flow slows down, such as the pump harvest pond and in McKusick Lake. Tributary stabilization measures were installed in 2021, however the deposited sediment remains. EOR prepared a plan set and specifications as well as sent a request for contractor quotes in December of 2022 with contractor selection anticipated in January 2023. In 2023 EOR will complete the permitting process with the MnDNR, USACE, and WCA, conduct construction administration, field observation, and project close-out with the selected contractor.
4. Annual Report - An end of season performance evaluation from the sampling results will be provided as well as updating the project operation and maintenance manual based on the activities throughout the year (pump on/off or variable speed drive setting alterations, additional maintenance performed outside of the norm, etc.). Per Board direction in 2022, additional lifecycle cost and total estimated project benefit will be included in the 2022 annual report.

Scope

The following table outlines the cost and hours anticipated for the 2023 season.

Task	Description	Hours	Cost
0. Routine System Status Monitoring & Maintenance	Remote desktop monitoring & pump setting adjustments Monthly site visits, mileage, and documentation. Filter surface maintenance coordination, addressing ongoing operation needs.	36	$6,250
1. List Station Inspection	Schedule and coordinate inspection by contractor (contractor fees estimated at $800 are separate)	4	$675
2. Filter Media Sampling	Collect 4-5 samples along filter, laboratory analysis, results review, and summary memorandum.	23	$4,200
3. Pump Harvest Pond Maintenance	Permitting, construction administration, field observation, project close-out.	67	$11,400
4. Performance Report, O&M Manual Update	Review of 2021 monitoring data, system performance evaluation, and reporting. Update project Operation & Maintenance Manual	36	$5,600
Total		**166**	**$28,125**

*Given the weather-dependent nature of the work, the costs are estimates only. Additional project needs will be brought to the attention of the District Administrator and outlined in a separate scope of work.

Requested Action

Consider approval of this scope of services for an estimated cost of $28,125 from account 948-0000.

2023
WAIVER OF LIABILITY FOR USE OF FAMILYMEANS SPACE

In consideration of permission to use, today and on all future dates, the property, facilities, and equipment of FamilyMeans, I, for myself or assigns, do hereby release, waive, discharge, and covenant not to sue FamilyMeans, its directors, officers, employees, and agents from liability from any and all claims, including the negligence of FamilyMeans, its officers, employees, agents and directors, resulting in personal injury, accidents or illnesses (including death), and property loss arising from, but not limited to, participation in activities, classes, observation, and use of facilities, premises, or equipment.

I also agree to IDEMNIFY AND HOLD FamilyMeans, its directors, officers, employees and agents, HARMLESS from any and all claims, actions, suits, procedures, costs, expenses, damages and liabilities, including attorney's fees, brought as a result of my use of FamilyMeans space and to reimburse them for any such expenses incurred.

Severability: The undersigned further expressly agrees that the foregoing waiver and assumption of risks agreement is intended to be as broad and inclusive as is permitted by the law of the State of Minnesota and that if any portion thereof is held invalid, it is agreed that the balance shall, notwithstanding, continue in full legal force and effect.

Acknowledgement of Understanding: I have read this waiver of liability, assumption of risk, and indemnity agreement, fully understand its terms and understand that I am giving up substantial rights including my right to sue. I acknowledge that I am signing the agreement freely and voluntarily, and intend by my signature to be a complete and unconditional release of all liability to the greatest extend allowed by law.

My organization (_____) renting/using the facility is responsible for:

- Any damage to the building, equipment, and/or furnishings caused by persons attending the event.
- Enforcing FamilyMeans alcohol-free, smoke-free and gun-free policies

I understand and agree to adhere to all of the above.

_____ _____

Signature of Guest Representative Dated

LMC LEAGUE of MINNESOTA CITIES

LIABILITY COVERAGE – WAIVER FORM

Members who obtain liability coverage through the League of Minnesota Cities Insurance Trust (LMCIT) must complete and return this form to LMCIT before the member's effective date of coverage. Return completed form to your underwriter or email to pstech@lmc.org.

The decision to waive or not waive the statutory tort limits must be made annually by the member's governing body, in consultation with its attorney if necessary.

Members who obtain liability coverage from LMCIT must decide whether to waive the statutory tort liability limits to the extent of the coverage purchased. The decision has the following effects:

- *If the member does not waive the statutory tort limits*, an individual claimant could recover no more than $500,000 on any claim to which the statutory tort limits apply. The total all claimants could recover for a single occurrence to which the statutory tort limits apply would be limited to $1,500,000. These statutory tort limits would apply regardless of whether the member purchases the optional LMCIT excess liability coverage.

- *If the member waives the statutory tort limits and does not purchase excess liability coverage*, a single claimant could recover up to $2,000,000 for a single occurrence (under the waive option, the tort cap liability limits are only waived to the extent of the member's liability coverage limits, and the LMCIT per occurrence limit is $2,000,000). The total all claimants could recover for a single occurrence to which the statutory tort limits apply would also be limited to $2,000,000, regardless of the number of claimants.

- *If the member waives the statutory tort limits and purchases excess liability coverage*, a single claimant could potentially recover an amount up to the limit of the coverage purchased. The total all claimants could recover for a single occurrence to which the statutory tort limits apply would also be limited to the amount of coverage purchased, regardless of the number of claimants.

Claims to which the statutory municipal tort limits do not apply are not affected by this decision.

145 University Avenue West
St. Paul, Minnesota 55103
PH: (651) 281-1200
TF: (800) 925-1122
FX: (651) 281-1298
www.lmc.org

LMCIT Member Name:

_____

Check one:

☐ The member **DOES NOT WAIVE** the monetary limits on municipal tort liability established by Minn. Stat. § 466.04.

☐ The member **WAIVES** the monetary limits on municipal tort liability established by Minn. Stat. § 466.04, to the extent of the limits of the liability coverage obtained from LMCIT.

Date of member's governing body meeting: _____

Signature:_____ Position: _____