

October 15, 2021

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

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

Dear Representatives:

A regular meeting of the Pioneer-Sarah Creek Watershed Management Commission will be held Thursday, October 21, 2021, at 6:00 p.m. This will be a **virtual** meeting.

Until further notice, all meetings will be held online to reduce the spread of COVID-19. **To join a meeting, click** <https://us02web.zoom.us/j/845974640?pwd=YTFON1hMaXdRRXdzL1lyREw1ak5rQT09>, which takes you directly to the meeting.

OR, go to www.zoom.us and click **Join A Meeting**. Meeting ID is **845 974 640**. The passcode for this meeting is **water**.

If your computer is not equipped with audio capability, dial into one of the numbers below with **passcode 978624**.

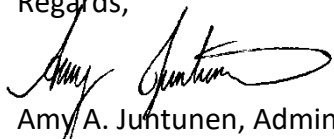
+1 929 205 6099 US (New York)
+1 669 900 6833 US (San Jose)
+1 253 215 8782 US

+1 312 626 6799 US (Chicago)
+1 346 248 7799 US (Houston)
+1 301 715 8592 US

Meetings remain open to the public via the instructions above.

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

Regards,



Amy A. Juntunen, Administrator
AAJ:tim

cc: Alternates
Paul Stewart, Kris Guentzel, HCEE
Brian Vlach, TRPD
Joel Jamnik, Attorney
Diane Spector, Wenck Assocs.

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

REGULAR MEETING AGENDA

October 21, 2021 • 6:00 p.m.

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

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

1. Call to Order.
2. Approve Agenda.*
3. Consent Agenda.
 - a. September meeting minutes.*
 - b. October Claims/Treasurer's Report.*
4. Open forum.
5. Action Items.
 - a. Lake Rebecca Subwatershed Assessment.*
 - b. McCombs Stabilization Project.*
6. Old Business.
7. New Business.
 - a. Lake Rebecca Channel Excavation Project.*
8. Watershed Management Plan.
9. Education.
10. Grant Updates.
 - a. WBIF – South Fork Crow One Watershed One Plan.
11. Communications.
 - a. Draft Metro WBIF Policy.*
 - b. Draft Metro WBIF comments from metro SWCDs*
12. Staff Reports.
 - a. Engineer's Report.*
 - b. HCEE Report.*
13. Commissioner Reports.
14. Other Business.
15. Adjournment. (Next scheduled meeting: November 18, 2021).

**REGULAR MEETING
Minutes
September 16, 2021**

1. CALL TO ORDER. A regular meeting of the Pioneer-Sarah Creek Watershed Management Commission was called to order via Zoom at 6:02 p.m., Thursday, September 16, 2021, by Chair Joe Baker.

Present: Mark Workcuff, Greenfield; Joe Baker, Independence; Caitlin Cahill, Maple Plain; Pat Wulff, Medina; John Tschumperlin, Minnetrista; Andrew Vistad, Hakanson-Anderson; Kris Guentzel and Paul Stewart, Hennepin County Environment and Energy (HCEE); Brian Vlach, Three Rivers Park District (TRPD); and Amy Juntunen, JASS.

Absent: Loretto

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

3. CONSENT AGENDA. Motion by Tschumperlin, second by Wulff to approve the Consent Agenda as presented.

a. **August Regular Meeting Minutes.***

b. **September Treasurer's Report/Monthly Claims *** totaling \$11,610.87.

Motion carried unanimously.

4. OPEN FORUM.

5. ACTION ITEMS.

a. **2021-005 Town Hall Culvert Replacement.*** The City of Greenfield is proposing to replace the Dance Hall Creek culvert located under Town Hall Drive. The current corrugated culvert will be replaced with a concrete culvert of the same size with no significant impacts. Staff recommends approval. The project meets the Commission's requirements for bridge and culvert crossings. Motion by Cahill, second by Baker to approve project 2021-005. *Motion carried unanimously.*

b. **2021-006 Spurzem Lake Boat Launch.*** Three Rivers Park District (TRPD) is proposing ADA improvements to the Spurzem Lake Boat Launch. This project will result in a small net decrease to impervious surface by replacing a portion of the existing gravel parking lot with concrete. This project meets all Commission requirements and staff recommends approval. Motion by Wulff, second by Cahill to approve project 2021-006 with the contingency of reviewing shoreline rules and statutes to ensure that this project is exempt from establishing buffer, proper slopes, and other rules as currently assumed. *Motion carried unanimously.*

c. **2021-007 6780 Greenfield Road.** This project is a single residential dwelling, driveway, and septic system. This project was reviewed for erosion and sediment control and meets Commission standards. Staff recommends approval with no contingencies. The landowner will need additional project review for future development/subdivision. Motion by Workcuff, second by Baker to approve project 2021-007. *Motion*

carried unanimously.

- 6. **OLD BUSINESS.**
- 7. **NEW BUSINESS.**
- 8. **WATERSHED MANAGEMENT PLAN.**
- 9. **EDUCATION.**
- 10. **GRANT UPDATES.**
- 11. **COMMUNICATIONS.**
- 12. **REPORTS.**

a. **Engineer's Report.*** A TAC meeting should be scheduled for this fall/winter to review the water appropriation permit discussed at the August meeting and bring an amended application and rules to the Commission.

b. **HCEE Report.*** County staff will be ***tabling at events*** over the next two weekends, Medina Celebration Day and Heidi's Growhaus. Commissioners are invited to attend.

The ***South Fork Crow watershed planning group*** is working on their One Watershed One Plan. County staff have taken an advisory role in the planning process. The current allocation for Watershed-Based Implementation Funds could be changed in the future and the Commission would need to work with South Fork Crow to compete for those funds.

The ***Lake Rebecca Subwatershed Assessment (SWA)*** went out for RFP on August 31. This will likely be on the agenda at the October meeting for action.

The ***County Road 92 open house*** was held on September 8. A recording from the open house can be shared on the Commission's website. The interchange will be open starting tomorrow.

County staff continue to work on several projects with landowners in the watershed including Shriners, McCombs, Duck Road, and Copeland Road. ***Requests for funding*** for these projects are anticipated over the next few months.

Concept plans from the ***Dance Hall Creek SWA*** have been received from Stantec. Vlach reviewed the nutrient load estimates from 2014 and feels comfortable with the calibration of the model for the SWA. The next steps will include modeling with BMPs.

c. **TRPD Report.** Vlach expects to develop a proposal to ***excavate the channel*** from the Shriners property to the Lake Rebecca Park Reserve for review at the October meeting.

The ***stormwater sampling*** has been short this year due to lack of rain this summer, though some samples are now possible with the recent rain events.

TRPD has completed the second ***AIS survey*** on Lake Independence and the draft study will soon be released. A zebra mussel survey will also be completed on Lake Independence this year. Vlach recommend that homeowners leave zebra mussel collection plates out at this time and requested photos and locations of the plates as they are removed, especially those very encrusted.

The U of M AIS laboratory gives a ***presentation on new research conducted on AIS issues*** every year. Anyone can attend via Zoom. Please email Vlach if interested. Baker requested to be emailed the information.

13. COMMISSIONER REPORTS.

a. **Baker.** A meeting is scheduled for September 27 between LSIA, DNR, TRPD and the Commission regarding the Lake Sarah vegetation management plan. It's been five years since the last meeting with all partners. The topic will be the lake vegetation management to date and continued treatment plan, as well as hydrology issues with the low water this year. The DNR hydrologist will be invited to discuss outlet maintenance and how to retain water as needed. Water levels have resulted in challenges to public access and residents getting boats off lifts.

The Baker gully is dry. However, the neighboring property will be sold soon. Baker will reach out to staff and partners outside the meeting to discuss if access is available through his property to complete the gully stabilization project.

Baker encouraged all Commissioners to participate in the County's Natural Resources Plan. A link was sent by the County and can also be requested from Juntunen.

b. **Wulff.** LICA will be tabling at the Medina Celebration event on September 18. Commissioners are invited to attend.

c. **Cahill.** Maple Plain is communicating with a developer about a possible downtown development.

14. OTHER BUSINESS.

The **next regular meeting** is scheduled October 21, 2021 and will be held online again via Zoom link <https://zoom.us/j/845974640>.

15. ADJOURNMENT. There being no further business, motion by Wulff, second by Baker to adjourn. *Motion carried unanimously.* The meeting was adjourned at 6:46 p.m.

Respectfully submitted,



Amy Juntunen
Administrator
AAJ:tim

Pioneer-Sarah Creek Watershed
Income Statement
Compared with Budget
For the Nine Months Ending September 30, 2021

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	Current Month Actual	Year to Date Actual	Year to Date Budget	Year to Date Variance
Revenues				
Member Dues	\$ 0.00	\$ 103,800.00	\$ 103,800.00	0.00
Lake Sarah TMDL Imple	3,416.12	3,416.12	0.00	3,416.12
Project Review Fees	650.00	3,400.00	4,500.00	(1,100.00)
CIP Income	0.00	28,000.00	28,000.00	0.00
Grant-FY19 WS-Based Funding	0.00	5,831.00	0.00	5,831.00
Grant-FY21 WS-Based Funding	0.00	135,585.00	0.00	135,585.00
Interest and Dividend Income	5.46	52.08	2,999.99	(2,947.91)
Total Revenues	4,071.58	280,084.20	139,299.99	140,784.21
Cost of Sales				
Total Cost of Sales	0.00	0.00	0.00	0.00
Gross Profit	4,071.58	280,084.20	139,299.99	140,784.21
Expenses				
Engineering/Consulting	1,656.00	12,203.60	26,400.00	14,196.40
Administrative Expense	1,209.44	16,529.31	27,000.00	10,470.69
Adm-Project Reviews	83.16	215.32	750.00	534.68
Adm-CIP Mgmt	0.00	126.45	1,500.00	1,373.55
Adm - Tech Support	0.00	248.95	562.50	313.55
Legal Expense	0.00	0.00	374.99	374.99
Audit Expense	0.00	4,500.00	4,500.00	0.00
Insurance	0.00	3,137.00	2,800.00	(337.00)
Website	70.20	315.86	1,350.00	1,034.14
TAC Meetings	0.00	0.00	2,500.00	2,500.00
Lake Sarah TMDL Implementation	3,416.12	3,416.12	0.00	(3,416.12)
Education	0.00	826.76	0.00	(826.76)
Grant Writing	0.00	0.00	1,000.00	1,000.00
Mgmt Plan - Admin	0.00	0.00	1,000.00	1,000.00
Capital Improvement Project	5,175.95	5,175.95	29,140.00	23,964.05
Total Expenses	11,610.87	46,695.32	98,877.49	52,182.17
Net Income	(\$ 7,539.29)	\$ 233,388.88	\$ 40,422.50	192,966.38

Pioneer-Sarah Creek Watershed
Balance Sheet
September 30, 2021

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ASSETS

Current Assets		
Cash-Checking US Bank	(\$ 8,592.07)	
Cash-4M Fund	661,187.11	
Accounts Receivable	<u>26,059.21</u>	
		<u></u>
Total Assets		<u>\$ 678,654.25</u>

LIABILITIES AND CAPITAL

Total Liabilities		0.00
Capital		
Next Generation Plan Fund	\$ 25,000.00	
Retained Surplus	281,677.86	
CIP Fund	131,580.51	
Grant fund - Watershed Based	7,007.00	
Net Income	<u>233,388.88</u>	
Total Capital		<u>678,654.25</u>
Total Liabilities & Capital		<u>\$ 678,654.25</u>

**Pioneer-Sarah Creek Watershed
Cash Disbursements Journal
For the Period From Oct 1, 2021 to Oct 31, 2021**

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

Date	Check #	Account ID	Line Description	Debit Amount	Credit Amount
10/21/21		50100	Engineering / Technical Consulting	950.00	
		10100	Hakanson Anderson Associates, Inc.		950.00
10/21/21		51100	Administration	687.17	
		51100	Meeting-related	291.51	
		51100	Bookkeeping / TRs	170.71	
		57000	Education	28.70	
		51120	Project Reviews	48.75	
		10100	Judie Anderson's Secretarial Service		1,226.84
Total				2,176.84	2,176.84



3601 Thurston Avenue
Suite 101
Anoka, MN 55303

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

Invoice number 46817
Date 09/27/2021

Project **PSC901-2021 GENERAL ENGINEERING
FOR PIONEER SARAH WMC 2021**

Professional Services Provided Through 08/31/2021

GENERAL ENGINEERING

Professional Fees

	Date	Hours	Rate	Billed Amount
Andrew Vistad <i>WATER APPROPRIATIONS PERMIT RESEARCH</i>	08/06/2021	5.00	100.00	500.00
Andrew Vistad <i>PROJECT REVIEW 2021-004 SCHEFERS HILLS</i>	08/12/2021	2.25	100.00	225.00
Andrew Vistad <i>MIKE MURPHY WATER PERMIT SITE PLAN COMMUNICATION DETERMINE PERMIT NECESSARY</i>	08/24/2021	2.25	100.00	225.00
PROFESSIONAL FEES SUBTOTAL				950.00
GENERAL ENGINEERING SUBTOTAL				950.00
AMOUNT DUE THIS INVOICE				950.00

Invoice Summary	Current Billed	Prior Billed	Total Billed
Total	950.00	4,751.60	5,701.60



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

3235 Fernbrook Lane
Plymouth MN 55447

October 15, 2021

				Total Project Area	
General Administration					
Administrative		60.00	0.000		
Administrative	3.52	65.00	228.800		
Administrative - virtual	0.99	70.00	69.300		
Office Support	4.50	65.00	292.500		
Public storage	1.00	87.36	87.360		
Data Processing/File Mgmt		65.00	0.000		
General filing		60.00	0.000		
Archiving		60.00	0.000		
Reimbursable Expense	9.21	1.00	9.210	687.170	Administration
Meeting packets, attendance, Minutes and Meeting follow-up					
Administrative	0.50	60.00	30.000		
Administrative	1.40	65.00	91.000		
Admin - virtual	1.08	70.00	75.600		
Reimbursable Expense	94.91	1.00	94.910	291.510	Meeting-related activities
Bookkeeping					
Bookkeeping		60.00	0.000		
Bookkeeping, budget, audit requests	1.58	65.00	102.700		
Treasurer's Reports	0.67	65.00	43.550		
Reimbursable Expense	24.46	1.00	24.460	170.710	Bookkeeping/TRs
Website					
Administrative		65.00	0.000	0.000	Website
Education, Strategic Planning					
Administrative		55.00	0.000		
Administrative		65.00	0.000		
Administrative - Virtual - Watershed Partners, e	0.410	70.00	28.700		
Reimbursable Expense		1.00	0.000	28.700	Education
Project Reviews					
Administrative		60.00	0.000		
Administrative	0.75	65.00	48.750		
File Management/Archiving		60.00	0.000		
Reimbursable Expense		1.00	0.000	48.750	Project Reviews
			1,226.840	1,226.840	

DATE: October 14, 2021

TO: Pioneer-Sarah Creek Watershed Management Commission

FROM: Kris Guentzel; Hennepin County Department of Environment and Energy

RE: REQUESTED COMMISSION ACTION, Lake Rebecca Subwatershed Assessment

Project Overview

(as shown in the RFP)

Hennepin County, Three River's Park District, and the Pioneer-Sarah Creek Watershed Management Commission (Partners) are exploring opportunities to protect and restore land and water through conservation efforts and best management practices (BMP) in the subwatershed located between Lake Rebecca Park Reserve and Lake Sarah Regional Park (Figure 1). The partners are seeking several phases of analysis to identify ways to fulfill local and partner interest in conservation of the area. Generally, this work entails a subwatershed assessment to identify BMP's that have the best cost benefit, supported by hydrologic modeling and BMP feasibility analysis. In addition, this scope includes BMP and drainage stabilization design for some specific areas within the subwatershed.

Partners have layered interest in the following requested work efforts:

- 1) The project area is an important corridor between existing protected areas and water resources. This area encompasses existing conservation easements, private residents and businesses, and public park spaces. Engagement with landowners in this area suggests many community members have interest in further protecting and improving the natural and water resources of this area. The following described work will inform efforts to protect, restore, and connect these areas now and in the future. It will also provide Partners with a template for coordinated work efforts and funding acquisition.
- 2) Agricultural BMPs, restoration work, and drainage engineering identified and designed through this work scope will help to mitigate and improve surface water quality, including for the recently de-listed Lake Rebecca. Furthermore, results from the described work effort will provide information needed for future alum treatments associated with Lake Rebecca.
- 3) In addition to the private residents and park district lands, this area also includes property owned by the Zuhrah Shrine Horsemen (ZSH). The county is working with the ZSH and the Natural Resource Conservation Service (NRCS) to develop a more sustainable grazing and

boarding plan to better align with property limits, complicated by increased hydrology of the site as a result of increasing precipitation patterns and rising ground-water levels. The County is also providing guidance and technical assistance related to in-kind tile replacement on their property. Scoping of potential BMPs and drainage infrastructure, designed to alleviate flooding issues on their property while simultaneously mitigating downstream flow and water quality, will be a crucial piece of this work effort.

- 4) Three Rivers Park District will be taking the initiative to review areas on their property, beginning with the excavation of a channel located within Lake Rebecca Park Reserve just downstream of ZSH property. There has been a significant amount of sediment deposited within the channel. The channel excavation project was previously identified as a priority to restore channel elevation grade and facilitate the conveyance of water from the ZSH property to Lake Rebecca. TRPD property is within the project area, and any proposed BMPs identified within park property will be evaluated with TRPD staff.

Proposal Evaluation

The RFP was released by Hennepin County on August 31st to 19 small business enterprise (SBE) consultants and closed on September 23rd. Three proposals were submitted which met RFP requirements. These were submitted by Emmons & Olivier Resources, Inc., HZ United, LLC, and Young Environmental Consulting Group, LLC. Members of Hennepin County, Three Rivers Park District, and Pioneer-Sarah Creek Watershed Management Commission formed a Proposal Evaluation Team and met on September 7th and 13th to review proposals and clarifying questions on those proposals, respectively. During the September 13th meeting, the team chose the Emmons & Olivier Resources, Inc. proposal as the most suitable to meet all project goals and objectives. That proposal is included with this memo.

Project Funding and Commission Request

Hennepin County staff are requesting the Commission support this project both from funding providing by the State of MN through its Watershed Based Implementation Funds (WBIF) program, as well as through the Commission's Capital Improvement Program (CIP). The County is also providing fiscal and staff support for this project. All preliminary funding sources, excluding County and Commission staff time, are outlined in the table below.

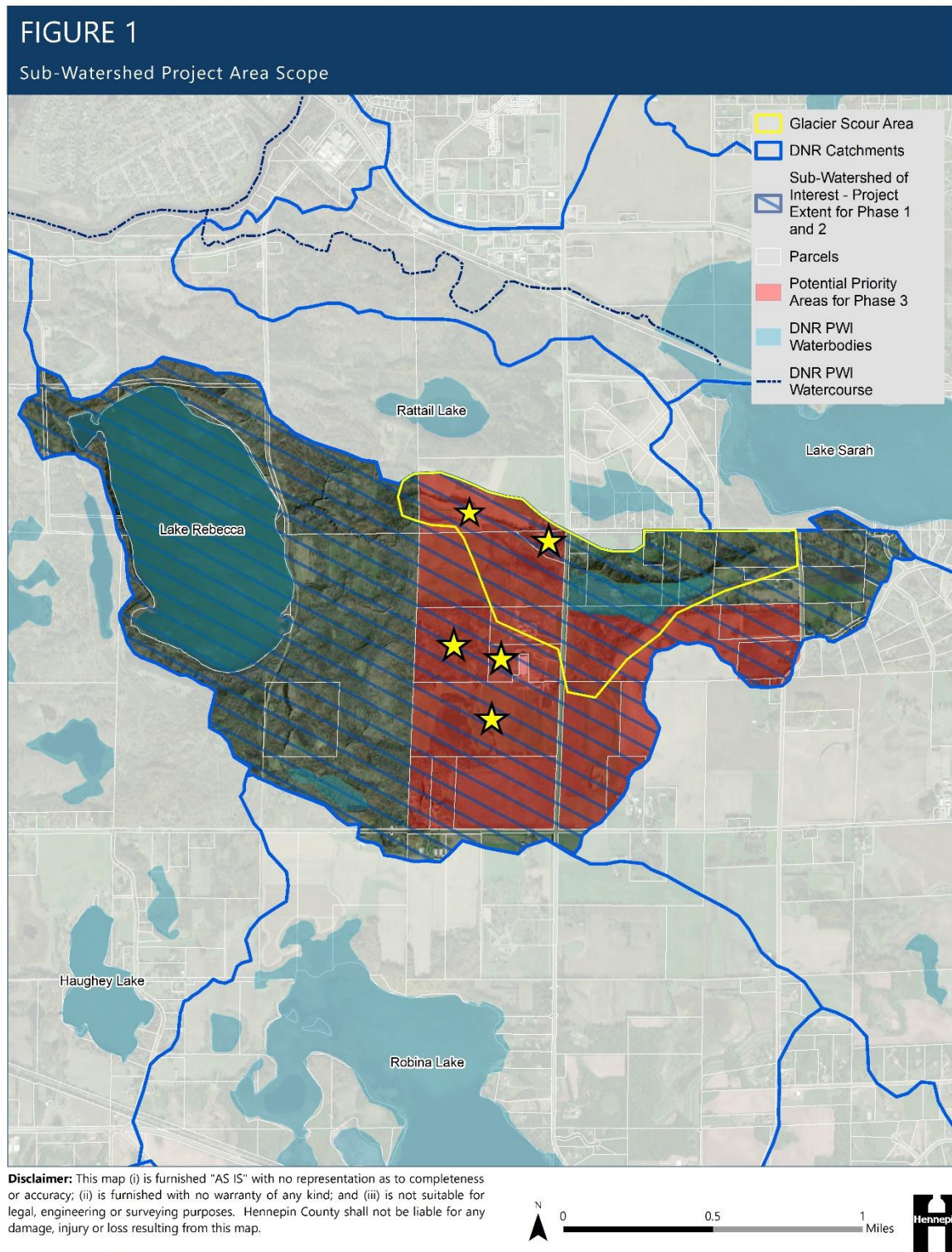
Subwatershed Assessment Development Costs

Project Cost	County	Commission (thru WBIF)	Commission (thru CIP)
\$68,595.00	\$33,595	\$30,000.00	\$5,000.00

In summary, County staff are requesting the Pioneer-Sarah Creek Watershed Management Commission support project implementation through the following

- **\$30,000 from Watershed Based Implementation Funds (WBIF)**
- **\$5,000 from CIP funds**

Figures



September 23, 2021

Hennepin County
Kristopher Guentzel
Senior Water Resources Specialist
Hennepin County Environment and Energy

Subject: Proposal for Lake Rebecca and Lake Sarah Subwatershed Study

Dear Kristopher:

Emmons and Olivier Resources (EOR) is pleased to submit the attached proposal for the Lake Rebecca and Lake Sarah Subwatershed Study. The purpose and objectives of this project align extremely well with EOR's experience on similar subwatershed and natural resources planning efforts.

Due to my experience working with Hennepin County and technical expertise, I will serve as Project Manager and Engineering Lead for this multi-faceted project. I have 24 years of experience in stormwater design and construction, including agricultural BMPs and habitat restoration. My background and extensive practical experience in geotechnical engineering, erosion control and ecology will be a great asset for this study.

I am well supported in this effort by Jimmy Marty, acting as Natural Resources and Ecological Lead and Ryan Fleming acting as Hydrologic Modeling Lead. In addition, a team of technical support staff will assist with field survey, BMP design (Engineering, Ecological and Landscape Architecture elements), and stormwater modeling.

Our Team of professionals has contributed to many recent projects with Hennepin County and Three Rivers Park District. Most recently, we worked closely with Hennepin County on the Home School Ecosystem Valuation and the Glen Lake Outlet Modeling. Our Team has also worked with the Minnesota Land Trust staff on a number of habitat management plans. Ryan Fleming has also led several recent successful modeling and engineering projects for Three Rivers Park District.

Given the limited budget available, we have consciously allocated our resources in the revised proposal to address all the requirements of the RFP. Additionally, our budget includes drone flights by a licensed drone operator to provide aerial imagery and a photomosaic of the study area.

Thank you for your consideration, and we look forward to working with you on this project. If you have any questions, please do not hesitate to call.

Sincerely,



Derek R. Lash, PE, CPESC

Project Manager & Civil Engineer
651-203-6031
dlash@eorinc.com

Project Team and Qualifications



Lead Staff

Derek Lash, PE, CPESC

Role: Project Manager

Derek Lash is a civil engineer and project manager with 24 years of experience in the design, documentation, and management of water resources projects including transportation, LID design, stormwater management, and wetland and ecological restoration. His background in geotechnical engineering, erosion control, and wetland ecology brings a detailed, analytical perspective to EOR's conservation work.



Ryan Fleming, PE

Role: Modeling Lead

Ryan Fleming has 20 years of experience specializing in water quantity and quality modeling and water permitting. Ryan has led watershed scale and individual BMP modeling efforts. He has also been actively involved on multiple stormwater engineering design projects. He has performed development plan reviews, erosion and sediment control evaluations, surveys, and construction inspections. Ryan's extensive experiences in modeling and site development allow him to develop programs and solutions that are effective in design and implementation.

Support Staff

[Kevin Biehn, ASLA](#) (Landscape Arch & Stream Specialist, 25 yrs. experience) – BMP vetting & restoration

[Dan Mossing, PE](#) (Water Resources Engineer, 6 yrs. experience) – BMP design & construction documents

[Trevor Rundhaug, EIT](#) (Water Resources Engineer, 5 yrs. experience) – Watershed modeling

[Brian Rucker](#) (Civil Engineer, 5 yrs. experience) – Surveying

[Jimmy Marty, CMWP](#) (Environmental Scientist, 6 yrs. experience) – Natural Resources

[Cecilio Olivier, PE](#) (Principal, Water Resources Engineer, 35 yrs. experience) – QA/QC



Work Plan

Phase 1: Hydrologic Modeling

Task 1-A Hydrologic Modeling

The purpose of the hydrologic modeling will be to establish flow accumulation areas and relative volume inputs to Lake Rebecca via terrain analysis and rainfall-runoff routing, as well as for vetting of structural and non-structural BMP siting to support Phases 2 and 3 of the project.

In partnership with CHI, Inc., EOR developed the Rural Stormwater Management Model (RSWMM) for these very objectives. RSWMM utilizes CHI's PCSWMM graphical user interface for EPA SWMM 5.1 in combination with soil erosion using the Modified Universal Soil Loss Equation (MUSLE) and a suite of field scale agricultural BMPs mimicking the relative changes in water quantity and quality of runoff using physically based parameters. RSWMM allows the user to apply avoid, control, and trap agricultural BMPs such as conservation cover, contour farming, cover crops, grassed waterways, terracing, water and sediment control basins, and woodchip bioreactors. Literature effectiveness values will be applied based on the state of the science for those BMPs outside of the suite included in RSWMM. Though running the MUSLE equation is specific to the PCSWMM software, the hydrologic and hydraulic model input file is natively supported in EPA SWMM 5.1 and the supporting geospatial layers can be read in common GIS software platforms.

Water quality BMP treatment is physically based by using the EPA SWMM 5.1 hydrology parameters for changes in landcover to result in reduced runoff volume and the hydraulic routing applies particle settling equations in trapping BMP's based on the size and depth of a practice. PCSWMM's powerful terrain analysis tools allow for efficient model building by automating the subcatchment delineation and flow network construction, complete with channel cross section sampling for flow routing. Our selection of the RSWMM model over other agricultural BMP capable platforms is based on the goal of seeing these projects through to implementation.

The relatively small watershed and limited number of landowners in the study area narrows the scope of BMP programs and placement lending itself well to using a detailed hydraulic model from project onset. Maximum BMP effectiveness will come from knowledge of the most opportune BMP locations as well as gaining local knowledge of what landowners are willing to implement. With that knowledge in hand, site specific, field scale BMP's can be simulated in the model which will easily translate to design support modeling in later project phases. The use of a detailed SWMM hydrologic and hydraulic model will allow project partners to fully understand the impact a BMP will make versus a high-level, less accurate, non-site-specific approach such as ArcSWAT. EOR's design group believes that modeling completeness precedes successful designs throughout the process, and a detailed SWMM model from Phase 1 will lead to efficient design process and a deeper understanding of the effects that small design changes may cause.

Subtasks

- Data collection, assessment, processing, and preparation for model input.
- Terrain analysis using the NRCS Engineering Toolbox and/or PCSWMM built in tools.
- Parameterization of physically based surface water model to generate terrain analysis and hydraulic results.
- Anecdotal calibration using TRPD monitoring checkpoints.
 - Note: This is not a full calibration and validation as the ability to conduct these steps will depend on the quantity and quality of the available data.
- Model results generation and results presented in a technical memorandum.
- One round of partner edits to the memorandum and maps.
- Finalize hydrologic technical memorandum and presentation of the data.
- Package all GIS and hydrologic modeling data layers for delivery to County staff.

Phase 1A Deliverables

- Electronic mapping of surface conveyances and relative flow volumes/lines to Lake Rebecca.
- Technical memorandum outlining modeling methodology, parameterization, and results.
- Modeling data & GIS database.

Assumptions

- Up to 2 meetings are included for kick-off & presentation of the results, meetings are assumed virtual.
- Hydraulic structures and inlets to Lake Rebecca and county roads are provided by Hennepin County.
- Water quality models will be estimated based on land use.
- GIS mapping of known tile locations will be provided by Hennepin County.
- Field survey is not required.
- Detailed water quantity calibration is not required as part of the request for proposal but will be spot checked against data collected by the TRPD.

Phase 2: Feasibility Analysis – Identification, Ranking, and Cost/Benefit of BMPs

Identify not more than 50 potential structural BMPs and conservation practices to support water quality and habitat improvement in the identified subwatershed. BMP size and capacity will be calculated, and conceptual designs drafted for those that are identified. Determine the cost-benefit return of these practices and articulate priorities based on anticipated returns and stakeholder direction.

Subtasks

- Kickoff meeting.
- Up to two additional meetings to discuss progress and findings with project stakeholders.
- Task 2-A
 - a. Site reconnaissance – review of site and key parcels.
 - b. Utilities – coordinate with Gopher 1 to complete a design locate to approximate utility locations and identify probable conflicts in public Right of Way.
 - c. Identification and vetting of options –
 - i. PCSWMM BMP specific water quality and quantity modeling.
 - ii. estimating const., design, admin., O&M and life-cycle costs.
 - iii. cost/benefit analysis and prioritization.
- Quantify natural resource improvements to incorporate climate-change driven hydrologic regimes.

Deliverables

- Draft version of BMP locations, for County staff to review and ground truth.
- Conceptual designs of each BMP, including geographical location, footprint, BMP type, and volume.
- Feasibility Analysis will include descriptions of methods and assumptions used to complete the study, a summary table comparing options, and maps of structural BMP and conservation BMP locations.
 - Draft Deliverable–up to two rounds of edits.
 - Final Deliverable

Assumptions

- Number of practices and practice types:
 - Up to 50 individual BMPs to be assessed.
 - Up to 10 different BMPs types to be assessed, e.g., WASCOD, grassed swale.
- LIDAR is sufficient for concept design and modeling in Phase 2.
- Given the anticipated timeline, preliminary BMP locations for ground truthing will be based on the draft hydrologic model while Partners review and provide feedback on the modeling report.
- Water quality reductions will be developed once the model feedback has been provided.
- County will coordinate with landowners for draitile information if available.
- County will coordinate edits of draft and provide one set of redlines.
- Our budget is based on identifying 25-50 BMPs, any additional BMPs will require an amendment to the contract.

Phase 3: Localized Design and Implementation

Develop location-specific implementation alternatives that consider the combined benefit of BMPs on the ZSH property and in Lake Rebecca Park property/parcels but not limited to these properties (not more than 10). Complete biddable construction documents for stakeholder prioritized & negotiated practices. Provide analysis for three levels of BMP alternatives, providing a range of natural resource benefits.

Subtasks

- Kickoff meeting – combined with Task 2.
- Up to two additional meetings to discuss progress and findings with project stakeholders.
- Task 3-A
 - Site reconnaissance – review of priority BMP locations and prep for site survey.
 - Tiered implementation analysis & BMP prioritization.
 - Determine cumulative benefits within each tier and across all tiers.
- Task 3-B
 - Utilities – complete Gopher State One Call to determine utilities conflicts in public Right of Way.
 - Site survey – sufficient topographic and infrastructure survey sufficient to design specific BMP practices.
 - BMP design and refinement - Construction documents.
 - BMP design and refinement – Build into hydrologic and hydraulic model to refine and optimize water quantity and quality removal effectiveness.
 - BMP design and refinement – Estimating construction, O&M and life-cycle costs.

Deliverables

- 60%, 90% and Biddable Construction Plans and Specifications – AutoCAD and PDF files.
 - BMPs and drainage solutions for the ZSH property.
 - Mitigate drainage degradation on the ZSH property.

Assumptions

- Meetings are assumed to be virtual unless on site.
- Field work and communication with the landowners will be coordinated through county staff.
- Site survey:
 - Completed during leaf off, no standing crop and snow free conditions.
 - Tree & property survey not included
- Number of practices and practice types:
 - Up to 8 individual BMPs to be designed, assuming all BMPs are relatively the same size and do not represent a high-level of complexity.
 - Up to 4 different BMPs types to be designed, e.g., WASCOD, grassed swale.
- Soils information will be based on local soil mapping.
- Aerial imagery may be collected via licensed drone operator, county will coordinate permission for land use.
- BMPs in Task 3-A will be assessed only, design will be completed under a different project.
- The following services, and any others not specifically mentioned above are excluded:
 - Location of private utilities
 - Permanent or temporary easements
 - Permitting
 - Bidding and Contract documents
 - Bidding
 - Geotechnical investigation
 - Construction administration

Budget/Cost Proposal

Cost Summary

BASE TASKS	DEADLINE	FEE	HOURS	UNIT COST	EXPENSE	TOTAL COST
		A	B	C	D	E
				A/B		A+D+E
Hydrologic Modeling and Groundwater Monitoring						
Kick-off Meeting for Phase 1	11/19/2021	\$ 807	5.00	\$ 161	\$ 112	\$ 919
Surface hydrology modeling draft memo	12/31/2021	\$ 8,880	59.00	\$ 151	\$ -	\$ 8,880
Partner review and comment provided	1/31/2022	\$ 346	2.00	\$ 173	\$ -	\$ 346
Final hydrologic memo, presentation, and data provided	2/28/2022	\$ 2,082	13.00	\$ 160	\$ -	\$ 2,082
		\$ 12,115	79.00	\$ 153	\$ 112	\$ 12,227
Feasibility Analysis - Identification, Ranking, and Cost/Benefit of BMPs						
Kick-off Meeting	11/19/2021	\$ 1,011	6.00	\$ 169	\$ 112	\$ 1,123
Consultant provides County BMP Opportunity locations for ground truthing	2/28/2022	\$ 2,886	18.00	\$ 160	\$ -	\$ 2,886
County provides results of ground truthing	3/31/2022	\$ 193	1.00	\$ 193	\$ -	\$ 193
Consultant completes draft of BMP Feasibility Analysis	4/30/2022	\$ 11,487	74.00	\$ 155	\$ -	\$ 11,487
Partner review and comment provided	5/31/2022	\$ 193	1.00	\$ 193	\$ -	\$ 193
Final BMP Feasibility Analysis memo, presentation, and data	6/30/2022	\$ 8,940	58.00	\$ 154	\$ -	\$ 8,940
Briefly describe any potential benefits related to habitat connectivity and wildlife livability.	6/30/2022	\$1,152	8.00	\$ 144		\$ 1,152
		\$ 25,862	166.00	\$ 156	\$ 112	\$ 25,974
Localized Design and Implementation						
Consultant will have completed all necessary field work on ZSH Ranch (Phase 3B)	12/31/2021	\$ 4,516	30.00	\$ 151	\$ 412	\$ 4,928
ZSH Ranch property designs drafts complete (Phase 3B)	2/28/2022	\$ 5,196	32.00	\$ 162	\$ -	\$ 5,196
Consultant completes drafts for up to 10 parcel-specific BMP assessments (Phase 3A)	2/28/2022	\$ 6,688	44.00	\$ 152	\$ 612	\$ 7,300
County provides results of ground truthing (pending snowmelt)	3/31/2022	\$ -	0.00		\$ -	\$ -
Consultant completes final designs for ZSH Ranch Property (Phase 3B)	4/30/2022	\$ 8,076	52.00	\$ 155		\$ 8,076
Consultant completes final for up to 10 parcel-specific BMP alternative assessments	4/30/2022	\$ 4,894	31.00	\$ 155		\$ 4,894
		\$ 29,370	189.00	\$ 155	\$ 1,024	\$ 30,394
BASE TASK TOTALS:		\$ 67,347	434	\$ 465	\$ 1,248	\$ 68,595

Hourly Cost by Team Member

	TEAM MEMBER:	Kevin Biehn	Ryan Fleming	Derek Lash	Brian Rucker	Dan Mossing	Trevor Rundhaug	Jimmy Marty	Cecilio Olivier	Chris Long	TOTAL	EXPENSES	EXPENSES	EXPENSES	EXPENSES	PROJECT
	BILLING CATEGORY:	Professional 4	Professional 3	Professional 4	Professional 2	Professional 2	Professional 2	Professional 2	Principal Partner	Professional 2	EOR LABOR					TOTAL BUDGET
	HOURLY RATE:	193	173	193	144	144	144	144	238	144		MILEAGE	MILEAGE	DRONE/GPS		
PHASE 01	Hydrologic Modeling and Groundwater Monitoring	HRS	\$	HRS	\$	HRS	\$	HRS	\$	HRS	\$	HRS	\$	\$	\$	\$
TASK 01-A	Kick-off Meeting for Phase 1			3.	\$519.00							5.	\$807.00	200.00	112.00	\$112.00
TASK 01-B	Surface hydrology modeling draft memo			10.	\$1,730.00							59.	\$8,880.00			\$8,880.00
TASK 01-C	Partner review and comment provided			2.	\$346.00							2.	\$346.00			\$346.00
TASK 01-D	Final hydrologic memo, presentation, and data provided			4.	\$692.00							13.	\$2,082.00			\$2,082.00
PHASE 01 TOTAL:				19.	\$3,287.00							79.	\$12,115.00	200.00	112.00	\$112.00
																\$12,227.00
PHASE 02	Feasibility Analysis - Identification, Ranking, and Cost/Benefit of BMPs	HRS	\$	HRS	\$	HRS	\$	HRS	\$	HRS	\$	HRS	\$	# of Miles	\$	\$
TASK 02-A	Kick-off Meeting			3.	\$579.00			3.	\$432.00			6.	\$1,011.00	200.00	\$112.00	\$112.00
TASK 02-B	Consultant provides County BMP Opportunity locations for ground truthing			6.	\$1,158.00			12.	\$1,728.00			18.	\$2,886.00			\$2,886.00
TASK 02-C	County provides results of ground truthing			1.	\$193.00							1.	\$193.00			\$193.00
TASK 02-D	Consultant completes draft of BMP Feasibility Analysis	4.	\$772.00	5.	\$865.00	10.	\$1,930.00	30.	\$4,320.00	25.	\$3,600.00	74.	\$11,487.00			\$11,487.00
TASK 02-E	Partner review and comment provided			1.	\$193.00							1.	\$193.00			\$193.00
TASK 02-F	Final BMP Feasibility Analysis memo, presentation, and data	2.	\$386.00			10.	\$1,930.00	26.	\$3,744.00	20.	\$2,880.00	58.	\$8,940.00			\$8,940.00
TASK 02-G	Briefly describe any potential benefits related to habitat connectivity and wildlife livability.							8.	\$1,152.00			8.	\$1,152.00			\$1,152.00
PHASE 02 TOTAL:		6.	\$1,158.00	5.	\$865.00	31.	\$5,983.00	71.	\$10,224.00	45.	\$6,480.00	166.	\$25,862.00	200.00	\$112.00	\$112.00
																\$25,974.00
PHASE 03	Localized Design and Implementation	HRS	\$	HRS	\$	HRS	\$	HRS	\$	HRS	\$	HRS	\$	# of Miles	\$	\$
TASK 03-A	Consultant will have completed all necessary field work on ZSH Ranch (Phase 3B)	2.	\$386.00			2.	\$386.00	22.	\$3,168.00	4.	\$576.00			30.	\$4,516.00	\$412.00
TASK 03-B	ZSH Ranch property designs drafts complete (Phase 3B)	2.	\$386.00			10.	\$1,930.00			20.	\$2,880.00			32.	\$5,196.00	\$5,196.00
TASK 03-C	Consultant completes drafts for up to 10 parcel-specific BMP assessments (Phase 3A)			2.	\$346.00	6.	\$1,158.00			13.	\$1,872.00	7.	\$1,008.00			\$7,300.00
TASK 03-D	County provides results of ground truthing (pending snowmelt)															
TASK 03-E	Consultant completes final designs for ZSH Ranch Property (Phase 3B)	2.	\$386.00			10.	\$1,930.00			40.	\$5,760.00			52.	\$8,076.00	\$8,076.00
TASK 03-F	Consultant completes final for up to 10 parcel-specific BMP alternative assessments			3.	\$519.00	7.	\$1,351.00			13.	\$1,872.00	8.	\$1,152.00			\$4,894.00
PHASE 03 TOTAL:		6.	\$1,158.00	5.	\$865.00	35.	\$6,755.00	22.	\$3,168.00	90.	\$12,960.00	15.	\$2,160.00			\$30,394.00
		Kevin Biehn	Ryan Fleming	Derek Lash	Brian Rucker	Dan Mossing	Trevor Rundhaug	Jimmy Marty	Cecilio Olivier	Chris Long	TOTAL	EXPENSES	EXPENSES	EXPENSES	EXPENSES	PROJECT
		Professional 4	Professional 3	Professional 4	Professional 2	Professional 2	Professional 2	Professional 2	Principal Partner	Professional 2	EOR LABOR					TOTAL BUDGET
		193	173	193	144	144	144	144	238	144		MILEAGE	MILEAGE	OTHER		
		HRS	\$	HRS	\$	HRS	\$	HRS	\$	HRS	\$	HRS	\$	\$	\$	
	PROJECT TOTALS	12.	\$2,316.00	29.	\$5,017.00	66.	\$12,738.00	22.	\$3,168.00	161.	\$23,184.00	118.	\$16,964.16	8.	\$1,152.00	\$68,595.00

DATE: October 14, 2021

TO: Pioneer-Sarah Creek Watershed Management Commission

FROM: Paul Stewart and Kris Guentzel; Hennepin County Department of Environment and Energy

RE: **REQUESTED COMMISSION ACTION**, McCombs Channel Stabilization

Project Overview

Hennepin County staff have been working for over a year with Bruce McCombs, the landowner at [2772 Becker Road in Independence](#), to address a severely eroding ephemeral channel on his property. Several site visits in 2020 led to the identification of over 250 feet of heavily eroded channel that was conveying significant amounts of sediment into the wetland east of Becker Road and north of Providence Curve, much of which likely reaches Lake Independence. Due to the evidence of severe erosion, County staff began working with the landowner and our engineer (Mike Candler at Wright Soil and Water Conservation District) to outline design options to address the erosion.

During the preliminary design process, the engineer determined that stabilizing the existing channel was cost-prohibitive and that abandoning (and plugging) the channel and instead conveying water through a pipe was the most cost-effective option that would address the erosion source on the property. To protect the pipe and downstream wetland, two other design features were added:

- 1) Stilling basin east of Becker Road and upstream (west) of the pipe inlet. This basin allows for water to slow down and settle out any upstream sediments and other particulates. In addition, this basin was designed to capture up to one inch of runoff from the upstream drainage area
- 2) Grassed overflow that would allow water to safely move across the site if, during a very large storm event, the pipe was overwhelmed.

Preliminary designs were completed in early summer 2021, at which time Hennepin County staff began to engage City of Independence staff about the opportunity to partner on this project as work would need to be completed within public right of way along Becker Road. City staff have been supportive of the effort and assisted with project execution, including a survey of the pipe conveying water below Becker Road.

The final designs have been included with this Commission action request.

Bids were solicited in August 2021 and three were received which met bid specifications. The chosen bid was from MSB for \$30,177.33.

With Commission approval, County staff expect the contractor can begin work in late October and complete work by year's end.

Project Funding and Commission Request

Hennepin County staff are requesting the Commission support this project both from funding providing by the State of MN through excess funds remaining from the under-budget Baker Park Ravine Stabilization Clean Water Fund Grant, as well as through the Commission's Capital Improvement Program (CIP). The table below outlines the County's requested funding breakdown.

Design and Project Development Costs

Project Cost	Landowner	County *	Commission (thru Baker Park Funds)	Commission (thru CIP)
\$30,177.33	\$0	\$6,977.78	\$0	\$0
% of Design + Development Costs	0%	100%	0%	0%

* 105 hours of time at rates of \$62.91 for Paul Stewart and \$70.00 for Mike Candler

Installation Costs

Project Cost	Landowner	County	Commission (thru Baker Park Funds)	Commission (thru CIP)
\$30,177.33	\$3,017.73	\$3,017.73	\$16,597.53	\$6,035.47
% of Installation Cost	10%	10%	55%	25%

The County is requesting full Commission CIP funding (i.e. 25%) because this project is cost-effective and directly improves water quality to a priority waterbody (Lake Independence) by reducing both sediment and total phosphorus loading.

This project is anticipated to capture 5.29 tons of sediment per year and 10.91 lbs of total phosphorus per year. The County estimated annual operations and maintenance to be \$8,000 dollars over the 20-year design lifetime. Therefore, life cycle cost-effectiveness is \$7,216/ton sediment removed and \$3,499/lb total phosphorus removed, which puts this practice in line with others in the Lakes Sarah and Independence Subwatershed Assessment.

In summary, County staff are requesting the Pioneer-Sarah Creek Watershed Management Commission support project implementation through the following

- **\$16,597.53 from excess Baker Park Ravine Stabilization Clean Water Funds**
- **\$6,035.47 from CIP funds**

QUOTE**EXCAVATING & TILING LLC**

10366 Co Rd 6 SW

Howard Lake, MN 55349

Cell:612-644-2097

Email:Bickman4050@gmail.com**TO: BRUCE MCCOMB**

DATE:8/26/2021

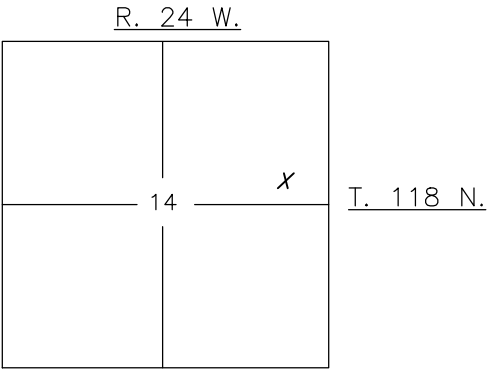
**FOR: INSTALLING TILE AND
WATERWAY**

DESCRIPTION	QTY	RATE	AMOUNT
Mobilization	1 Job.	\$1,000/Job.	\$1,000
Spreading & salvaging topsoil	220 Cu. Yds.	\$2.25/Yd.	\$495
Compacted earth-fill	12 Cu. Yds.	\$45.40/Yd.	\$544.80
Grade & shape waterway	620 Ln. Ft.	\$5.20/Ft.	\$3,224
Grade & shape rock stilling basin	1 Job.	\$475/Job.	\$475
Clear & grub trees (bid for staying on site)	1 Job.	\$600/Job.	\$600
Place & compact spoils in existing waterway	100 Cu. Yds.	\$5/Yd.	\$500
15" non-perf dual wall	280 Ft.	\$22.50/Ft.	\$6,300
15" by 20' CMP with FES	2 Jobs.	\$1,530/Job.	\$3,060
18" by 20' CMP with rodent guard	1 Job.	\$1,430.20/Job.	\$1,430.20
15" Dual wall intake	1 Job.	\$525.83/Job.	\$525.83
15" Beehive trash guard	1 Job.	\$105/Job.	\$105
Class 2 Rip-Rap	60 Cu. Yds.	\$110/Yd.	\$6,600
Class IV non-woven geotextile	130 Sq. Yds.	\$4.75/Sq. Yd.	\$617.50
Seeding	20,000 Sq. Ft.	\$.10/Sq.Ft.	\$2,000
Mulching	15,000 Sq. Ft.	\$.10/Sq.Ft.	\$1,500

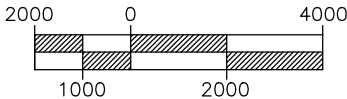
DESCRIPTION	QTY	RATE	AMOUNT
Erosion control blanket	600 Sq. Yds.	\$2.00/Sq. Yd.	\$1,200
15" Dual wall culvert with FES alternate	2 Jobs.	\$1,080/Job.	\$2,160
THE TOTAL OF THE QUOTE IS WITH THE ORIGINAL 15 CMP PRICE. THANKS			
TOTAL			\$30,177.33

QUOTE IS ONLY GOOD FOR 30 DAYS AND FOR THE QUANTITIES LISTED ABOVE.

Thank you for your business!



LOCATION MAP
Independence Township



Minnesota specifications for conservation practices apply for all materials and construction work. These specifications are part of this plan.

NOTE: Changes in the drawings or specifications must be authorized by the owner and the representative with the proper approval authority.

The owner is responsible for obtaining land rights and local, state, and federal permits or other permission necessary to perform and maintain the practice.

Before start of construction, the owner(s) of any utilities involved must be notified. The excavator is responsible for giving notice by calling "Gopher State One-Call" at (651) 454-0002 (twin cities metro area) or (800) 252-1166 (all other locations) at least 48 hours prior to any excavation.

GSOC Number

I have reviewed and understand the plans and specifications and agree to complete the work accordingly. Failure to meet these plans and specifications may jeopardize any financial assistance applied for. I understand that it is my responsibility to secure all necessary permits and licenses, and to complete the work in accordance with all local, state, and federal laws. Modifications of these plans or specifications must be approved by the natural resources conservation service before installation. I assume responsibility for negotiations and agreements with the contractors.

COOPERATORS SIGNATURE

DATE

HENNEPIN COUNTY ENVIRONMENT AND ENERGY

DETAIL PLANS FOR WATERWAY REPAIR MCCOMBS HENNEPIN COUNTY, MINNESOTA

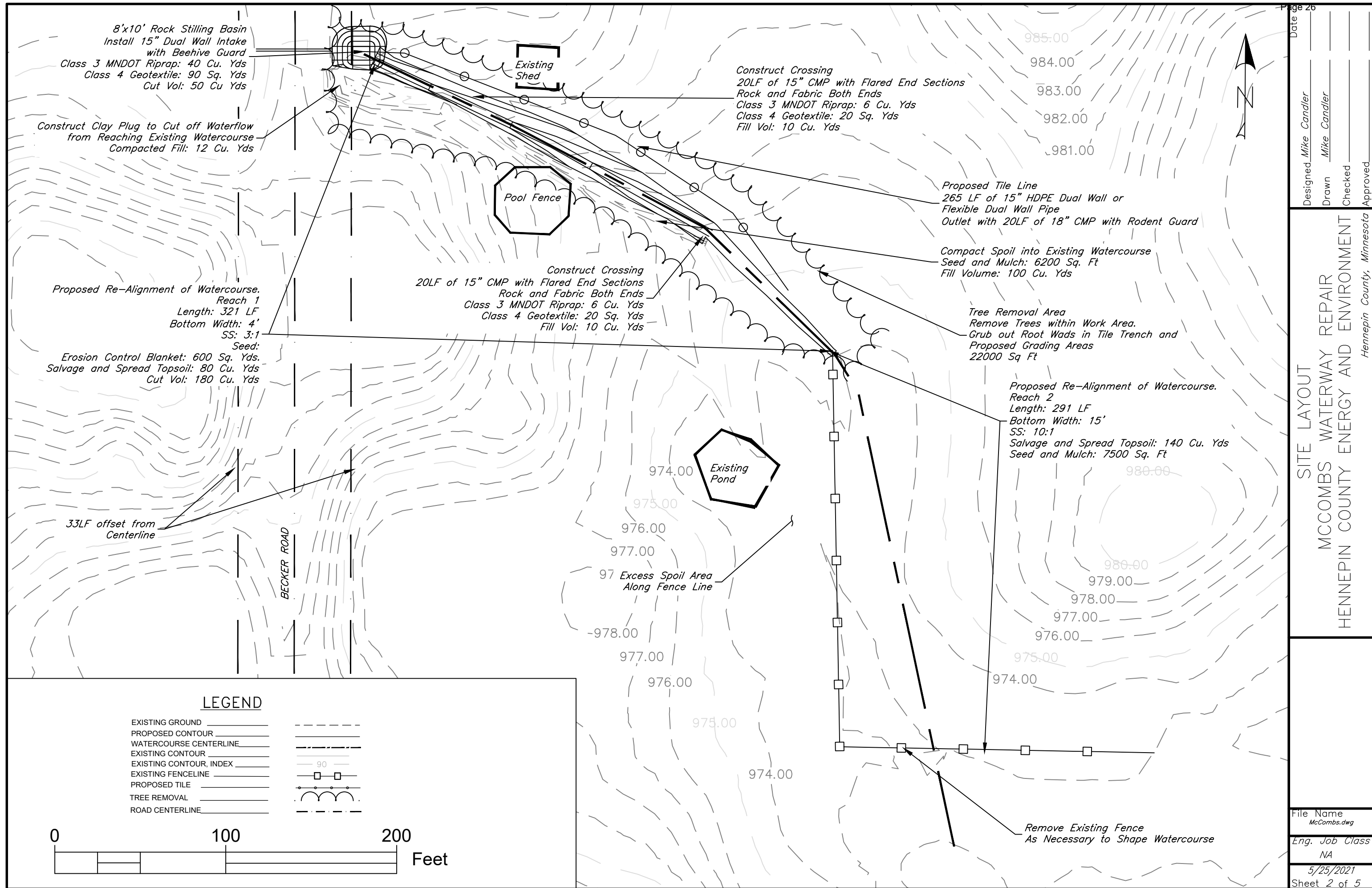
SUMMARY OF ESTIMATED QUANTITIES			
QUANTITY	UNIT	ITEM	SPEC NO.
220	Cu. Yds	Spreading and Salvaging Topsoil	26
12	Cu. Yds	Compacted Earthfill – Clay Plug	254
620	Ln. Ft.	Grade and Shape Waterway	27
1	Job	Grade and Shape Rock Stilling Basin	4
1	Job	Clear and Grub Trees	2
100	Cu. Yds.	Place and Compact Spoils in Existing Waterway	254
280	Ln. Ft.	15" Dia. Non-Perforated Dual Wall, HDPE	44
2	Each	15" Dia. x 20' Corrugated Metal Pipe with Flared End Sections	51
1	Each	18" Dia. X 20' Corrugated Metal Pipe w/Rodent Guard	51
1	Each	15" Dual Wall Intake	44
1	Each	15" Beehive Trash Guard	44
60	Cu. Yds	Class III Rip-Rap	95
130	Cu. Yds	Class IV Non-Woven Geotextile	61
20000	Sq. Ft.	Seeding	6
15000	Sq. Ft.	Mulching	6
600	Sq. Yds	Erosion Control Blanket (Landlok S2 or Equivalent)	6

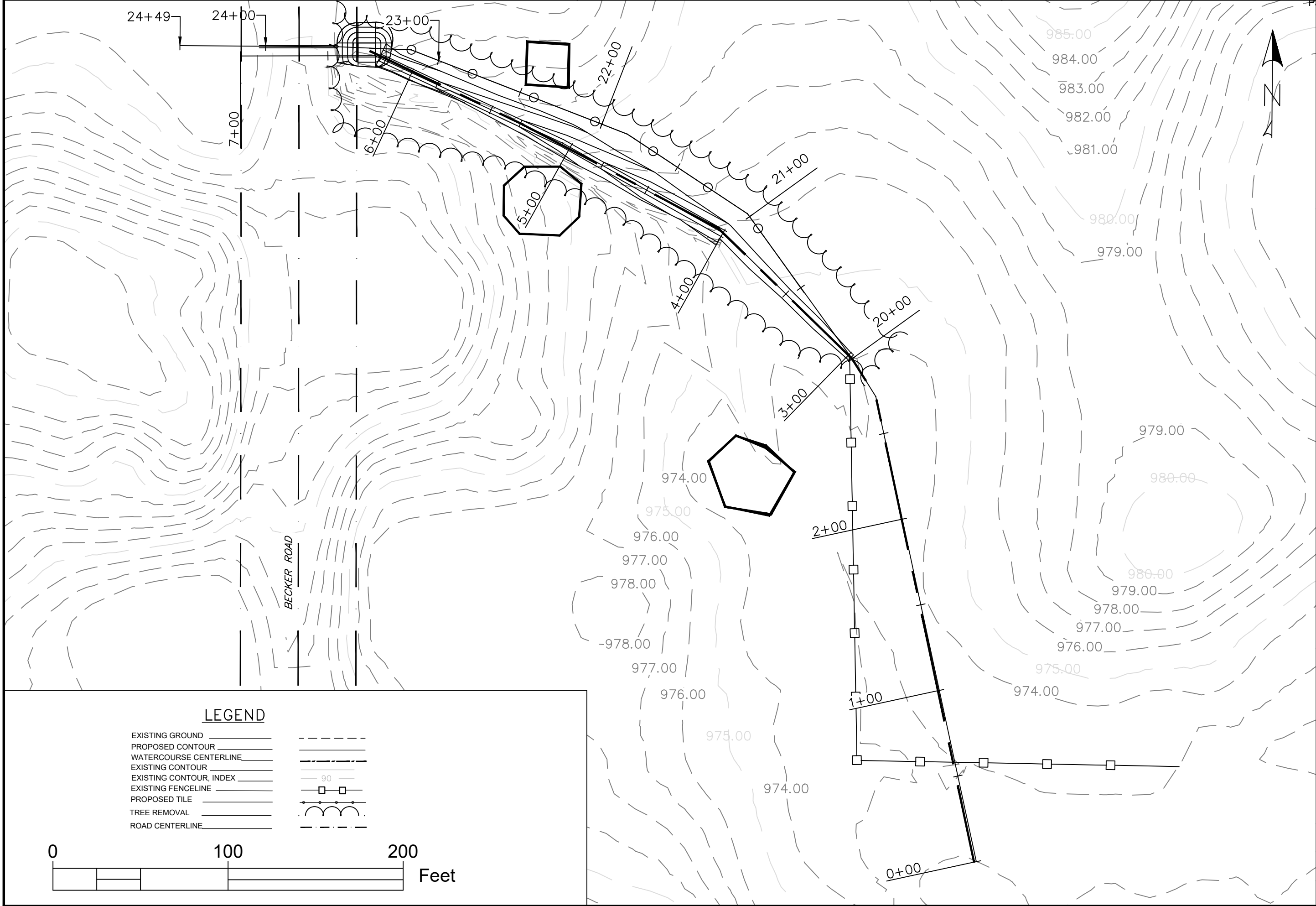
INDEX OF DRAWINGS	
SHEET	TITLE
1	Cover Page
2	Layout Page
3	Alignments
4	Proposed Waterway Profile and Cross Sections
5	Proposed Tile Profile and Stilling Basin Detail

CONSTRUCTION CERTIFICATION
THIS INSTALLATION MEETS NRCS STANDARDS AND SPECIFICATIONS. ____ YES ____ NO
INSPECTED BY: _____.
CERTIFIED BY: _____.
DATE: _____.

JOB APPROVAL AUTHORITY LEVEL: NA

BENCHMARK DESCRIPTIONS
TBM 1 – Technician to stake
TMB2 – ELEV
GEOID09, INTERNATIONAL FEET
HORIZONTAL DATUM IS ASSUMED BASED ON UTM ZONE 15N, NAD 1983 CONUS, VERTICAL DATUM ASSUMED





Page 27

Date

Designed Mike Candler

Drawn Mike Candler

Checked

Approved

SITE LAYOUT

MCCOMBS WATERWAY REPAIR

HENNEPIN COUNTY ENERGY AND ENVIRONMENT

Hennepin County, Minnesota

File Name

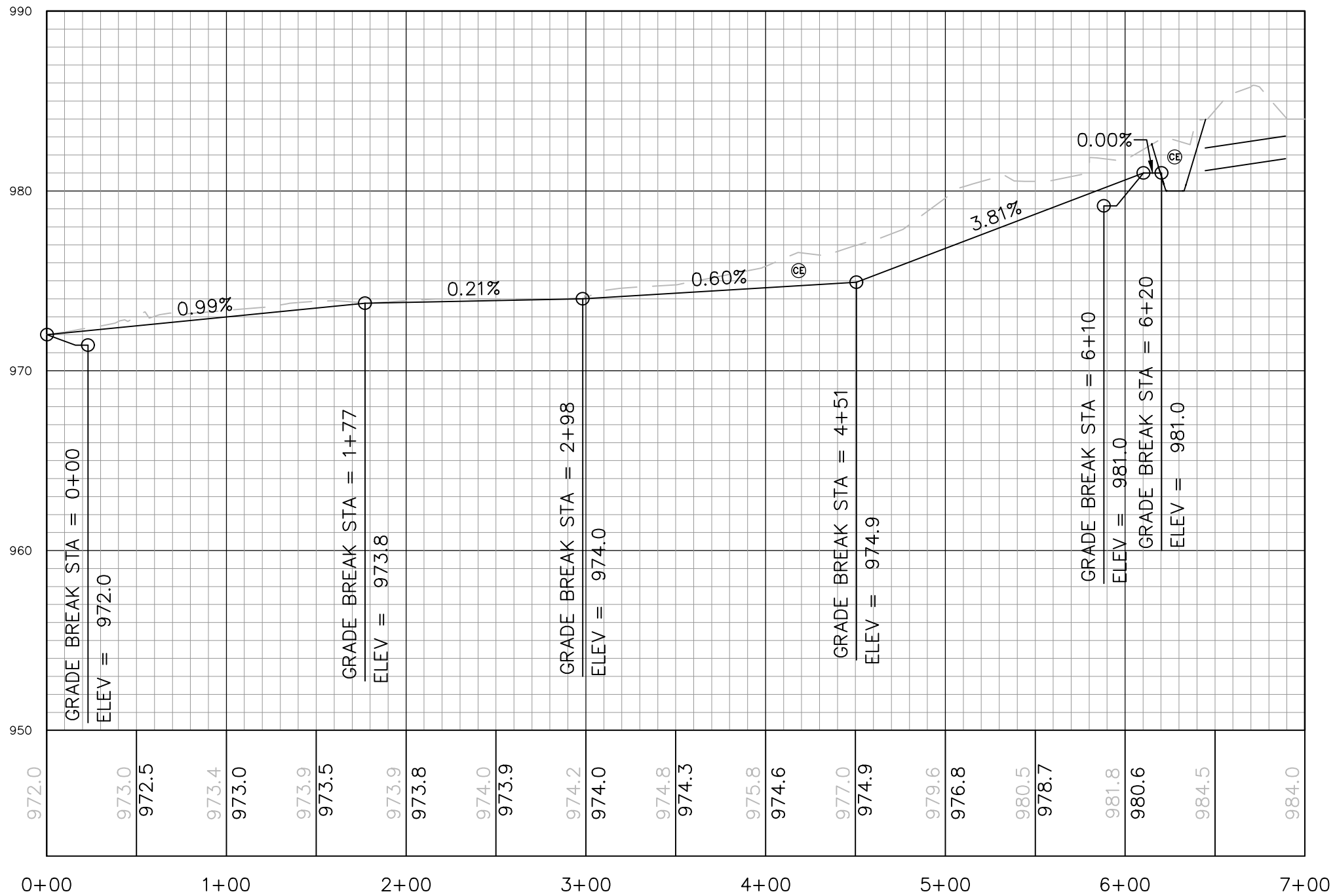
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Eng. Job Class

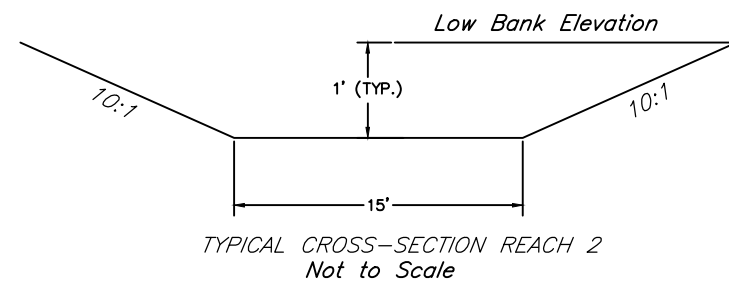
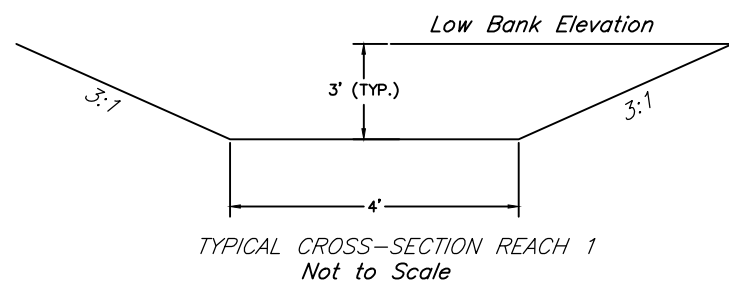
NA

5/25/2021

Sheet 3 of 5



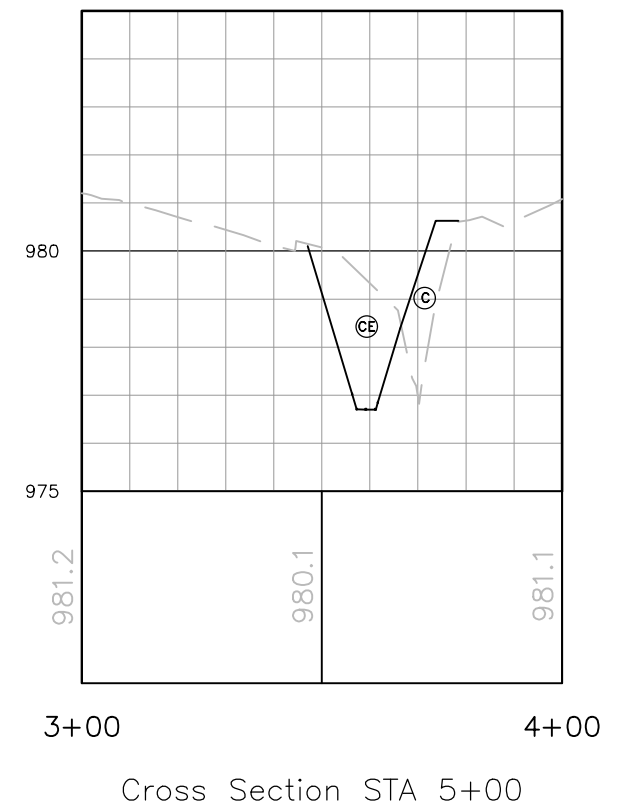
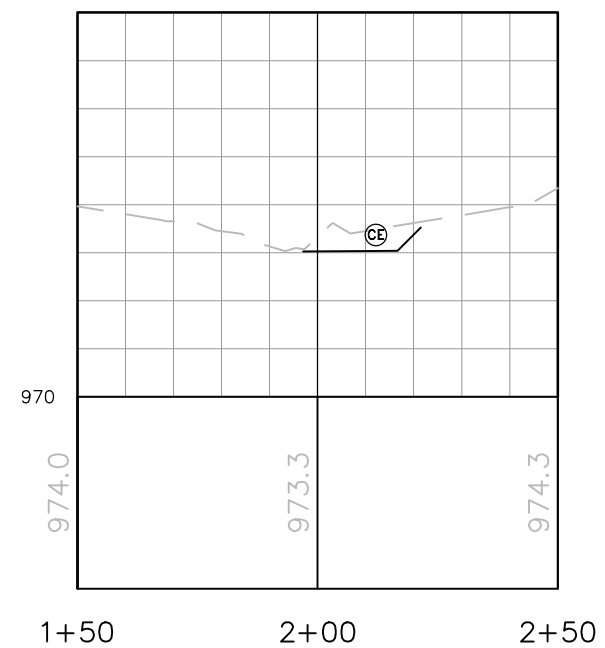
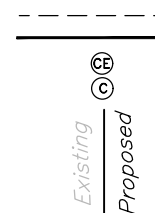
Proposed Waterway Profile



PROFILE LEGEND

EXISTING GROUND
TOP OF FINAL GRADE
COMMON EXCAVATION
COMPACTED EARTH FILL

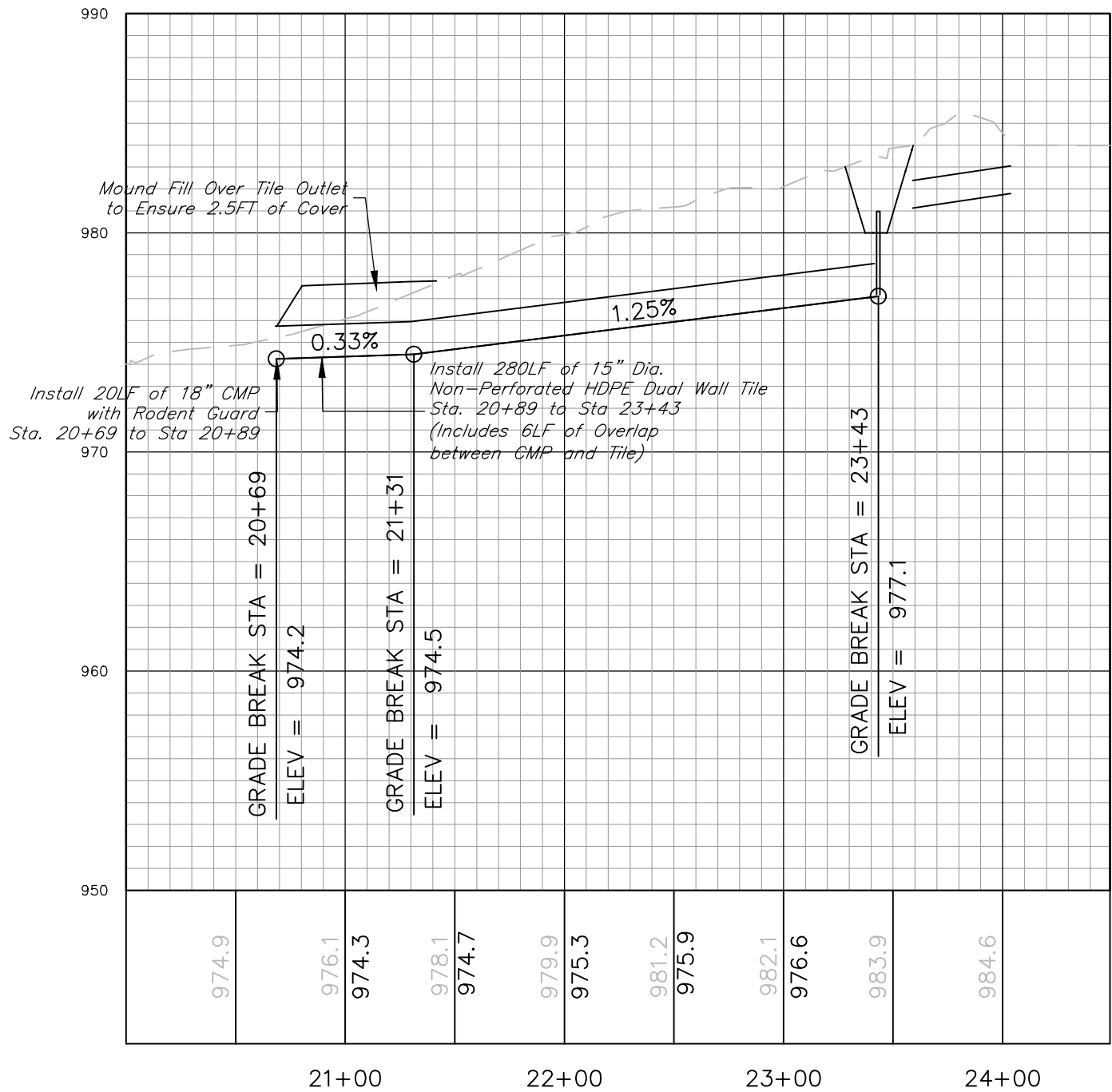
CONSTRUCTION GRADES



WATERWAY PROFILE AND CROSS SECTIONS
MCCOMBS WATERWAY REPAIR
HENNEPIN COUNTY ENERGY AND ENVIRONMENT

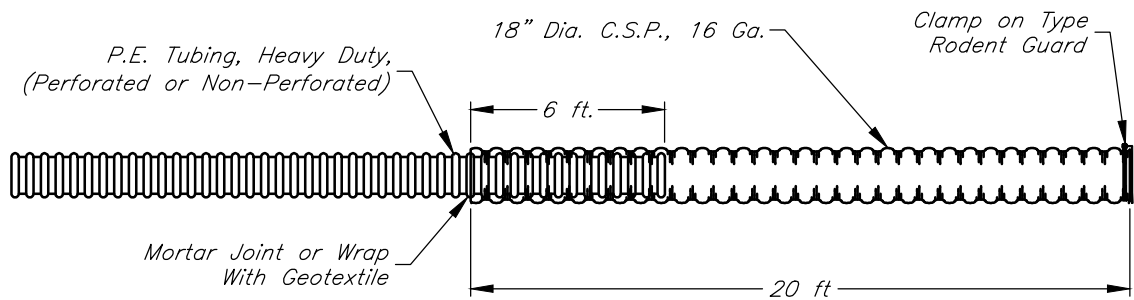
File No.
McCombs.dwg
Eng. Job Class
NA
5/25/2021
Sheet 4 of 5

Designed Mike Candler
Drawn Mike Candler
Checked
Approved
Date 3/11/20
3/11/20
Hennepin County, Minnesota

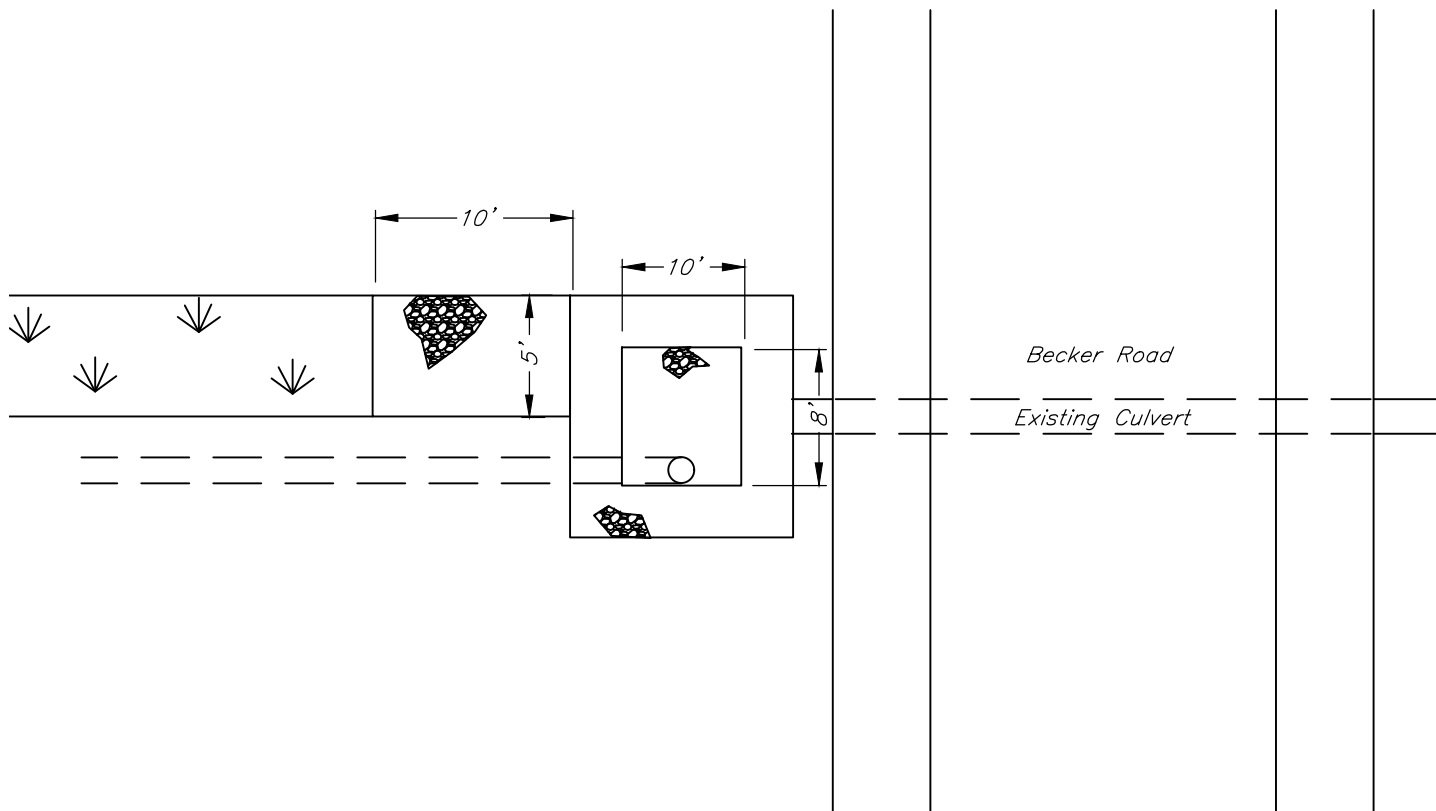


NOTE:
1. Minimum of 2.5' fill over tile.

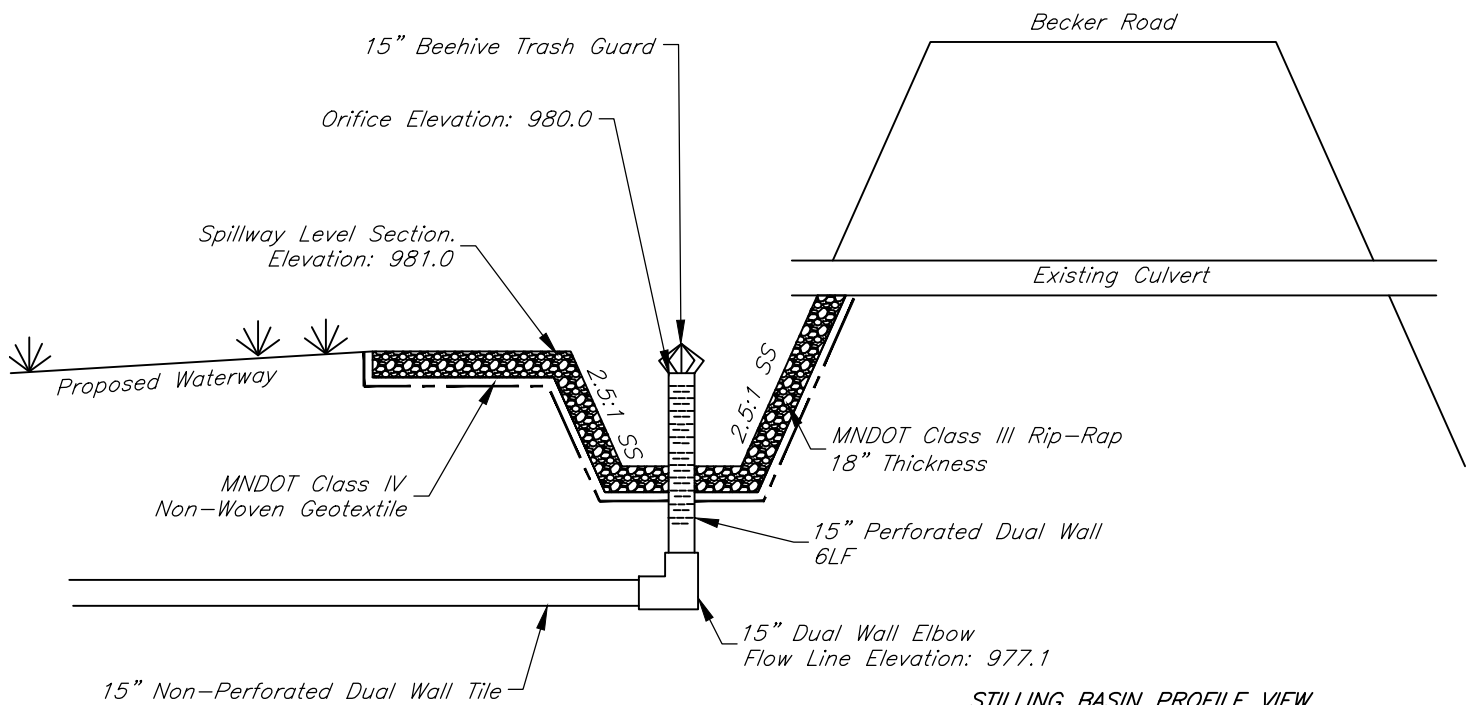
Proposed Tile Line Profile



OUTLET DETAIL
Not to Scale



STILLING BASIN PLAN VIEW
Not to Scale



STILLING BASIN PROFILE VIEW
Not to Scale

Page 29
Date 3/11/20
Designed Mike Candler
Drawn Mike Candler
Checked
Approved

TILE LINE PROFILE
MCCOMBS WATERWAY REPAIR
HENNEPIN COUNTY ENERGY AND ENVIRONMENT
Hennepin County, Minnesota

File No.
McCombs.dwg
Eng. Job Class
NA
5/25/2021
Sheet 5 of 5

Date: October 14, 2021

To: Pioneer-Sarah Creek Watershed Management Commission

From: Brian Vlach
Senior Manager of Water Resources
Three Rivers Park District

Subject: Project Introduction - Lake Rebecca Park Reserve Channel Excavation

Hennepin County, Pioneer-Sarah Creek Watershed Management Commission and Three Rivers Park District are currently researching opportunities to improve the water quality and the conveyance of water within the sub-watershed located between Lake Sarah Regional Park and Lake Rebecca Park Reserve. This work will involve the completion of a sub-watershed assessment that will identify various best management practices (BMP) that have the best cost-benefit supported by hydrologic modeling and feasibility analysis. The project scope will also include BMP drainage improvement and stabilization projects that have already been identified for specific areas within the sub-watershed.

A project previously identified as a priority was a channel located within the Lake Rebecca Park Reserve that facilitates the drainage and conveyance of water downstream from the Zuhrah Shrine Horsemen (ZSH). There has been recent flooding on the Zuhrah Shrine Horsemen property due to above average precipitation conditions over the past decade. The culvert inlet that is supposed to convey the drainage of water from the ZSH property through the Lake Rebecca Park Reserve channel is partially plugged due to the accumulation of sediment and debris.

Three Rivers Park District will be taking the initiative to improve the conveyance of water through Lake Rebecca Park Reserve Channel by restoring the culvert and excavating the accumulated sediment within the channel. The channel will also be stabilized to reduce bank erosion and provide water quality benefits through a series of check dams installed throughout portions of the stream.

The attached proposal outlines the various tasks that will be completed by the Three Rivers Park District to proceed with the project. Three Rivers Park District will be paying for consulting services provided by Stantec to help facilitate the completion of the tasks within the proposal. The Three Rivers Park District will request technical assistance from the various partners with the design and permitting phases of the project. Work on the defined tasks will begin immediately and it is anticipated that design plans will be completed by the end of 2021. The timing of construction to complete the project will be dependent upon available funding sources.

October 7, 2021

Attention: Brian Vlach
 Senior Water Resources Manager
 Three Rivers Park District
 3000 Xenium Lane North
 Plymouth, MN 55441

Dear Mr. Vlach,

Reference: Lake Rebecca Inlet Stream

As requested, Stantec Consulting Services Inc. (Stantec) submits this proposal to assist Three Rivers Park District (TRPD) in restoring hydraulic capacity to the un-named Lake Rebecca tributary stream on the far east side of the park abutting the Shriner's property. The upper segment of the tributary stream has accumulated sediment in the channel and in the existing upstream culvert. At our on-site meeting on Tuesday afternoon September 14th Seth Bossert and Ed Matthiesen from Stantec discussed ideas with you to restore the flow capacity of the channel. These thoughts included removing the accumulated sediment, opening the existing culvert, or installing a new one and methods to lessen the incoming sediment load. This proposal includes the following items: topographic and culvert structure location survey, wetland delineation, concept design with associated opinion of probable construction cost, final design construction plan for implementation of the design, permitting, solicitation of quotes and construction administration.

Task 1 – Project Design

Stantec will complete a topographic survey of the channel with cross sections every 50 linear feet along the channel centerline of the first 200 linear feet of the upstream section and every 100 linear feet thereafter, location of the existing TRPD boundary, elevation shot of the channel/top of sediment every 25 linear feet for the first 200 linear feet of the upstream section, and inverts and sizes of the existing culverts. This will create a more accurate base map of the project, compared with LiDAR information.

Stantec will draft 60% design plans and Opinion of Probable Costs for TRPD to review. Once the draft plans are reviewed, a design review meeting will be held with TRPD staff to discuss the plans.

The following items will be provided for the TRPD under this task:

- Review modelling from Subwatershed assessment for existing conditions vs. cleaned out culvert and two sizes of pipe increases.
- 60% Design Plan Set and Opinion of Probable Cost
- Design Review Meeting & Minutes
- Final Construction Plans and Opinion of Probable Cost

The total estimated cost for **Task 1** is **\$10,400**.

Task 2 – (Optional Task) – Wetland Delineation

Offsite Review and Wetland Determination

Stantec will review the National Wetlands Inventory, National Hydrography Dataset, county soil survey data (concerning hydric soils), and LiDAR data to assess potential wetland areas before conducting the field work. These results will be incorporated into the Wetland Delineation Report.

Field Wetland Delineation

Stantec will conduct a wetland investigation using the on-site methodology set forth in the 1987 U.S. Army Corps of Engineers (COE) Wetlands Delineation Manual (1987 Manual) and the 2010 COE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Regional Supplement. Potential wetland areas will be examined per the routine methodology and wetland boundaries will be determined through analysis of the vegetation, soils, and hydrology. If wetlands are identified, wetland boundaries within the project area will be marked with labelled neon pin flags approximately every 50-100 feet. If wetland complexes are observed, wetland community type boundaries will be differentiated throughout the project area and displayed in the wetland delineation report figures. The wetland boundaries will be recorded with a handheld GPS unit with submeter accuracy.

Wetland Delineation Report

Stantec will complete a delineation report in accordance with the 1987 Manual. The report will include the extent, boundaries, and types of wetlands encountered on site, if any. The report will also include but is not limited to: a project location map, map of delineated onsite wetland boundaries, COE wetland delineation data sheets, ground photographs from the site visit, and any other information that might be useful to describe the onsite findings, including GIS shapefiles. After your review and approval, the report will be signed by a Minnesota Certified Wetland Delineator and submitted to the local Wetland Conservation Act administrator and COE for review prior to the concurrence meeting described in Task 4.

Coordinate Agency Approvals

Stantec will coordinate and attend an onsite meeting with the Technical Evaluation Panel (TEP) after the delineation report is submitted to get concurrence on the delineated wetland boundaries. We will meet on site with the regulators and keep you informed of the outcome and any adjustments that were necessary in the delineated boundaries. Any adjustments that result from the onsite meeting will be made to the delineation report and re-submitted to you and the regulatory agencies.

Our cost estimate does not include work that may be required beyond the scope we have described, including any additional field work. If wetland is delineated on site and permitting is needed for a No Loss or Exemption, this language can be used for potential future work after the delineation.

The total estimated cost for **Task 2** is **\$2,500**.

Task 3 – Permitting – (As Needed based on design)

Stantec has reviewed the project location and has estimated the permitting efforts to include the following items.

WCA Permit Application

Stantec will complete a WCA permit application for a potential No Loss/Exemption based on the wetland delineation. The permit application will be based on wetland observed within the project area, and if the work to be performed meets a WCA No Loss or Exemption. Once the application is complete, Stantec will submit it on your behalf to the Local Government Unit for review.

Stantec will coordinate with the Technical Evaluation Panel (TEP) after the application is submitted to get concurrence and make sure the approval process is completed in a timely manner. Our cost estimate does not include work that may be required beyond the scope we have described, including any additional field work.

Mn DNR Public Waters & USACOE Permits

The channel is a tributary intermittent channel and not public waters. The MN DNR may not require a permit, but the channel flows into a public water. The extents of the excavation required for the project are still unknown, so we are accounting for the potential of both a MN DNR and USACOE permit. This assumes the worst-case scenario, but if permits are not needed the overall cost will be lower. Stantec will use the construction plans to prepare permit applications on behalf of TRPD for the project.

- WCA Permit Application: \$500
- Coordinate Agency Approvals: \$800
- MN DNR Public Waters Permit: \$2,000
- Army Corps of Engineers Permit: \$3,550
- Pioneer and Sarah Creek WMO Permit: \$1000

The total estimated cost for **Task 3 is \$7,850**. All permit application fees are to be paid for by Three Rivers Park District.

Task 4 – Quote Package & Solicitation of Quotes

After permits are acquired from the regulatory agencies, Stantec will prepare a single quote package for the design. Construction of the project is estimated to be less than \$100,000 so will only require 2 or more quotes be solicited, not a full bid package. Stantec will send the quote package out to at least three contractors with whom we are familiar with from similar projects. Stantec will answer questions from contractors during the quote period, assemble all quotes that are received into a tabulation format, and provide a recommendation to TRPD for selecting a quote. Based on TRPD approval of the Contractor, Stantec will prepare the Notice of Award and assist with the execution of the award to the Contractor.

The following items will be provided to the TRPD under this task:

- Quote package for the project: \$1,250
- Pre-Quote meeting at the site: \$800
- Quote comparison tabulation: \$600
- Recommendation of award: \$400

The total cost to complete **Task 4 is \$3,050**

Task 5 – (Optional Task) – Construction Administration

After the contract is approved, awarded, and executed between TRPD and Contractor, Stantec will perform one initial site visit with the Contractor to stake project features and go over the details of project construction. Project construction is expected to take approximately 1 to 2 weeks. Under this task Stantec will have a landscape architect or engineer complete one site visit for the project areas to inspect the excavation, material placement and preparation. Stantec will complete two additional field oversight visits plus a final walk through. Stantec will coordinate with the Contractor during construction as needed and after construction is complete, Stantec will review one pay request submittal for completion and authorization.

The total estimated cost for the tasks described above are as follows:

- Construction Staking: \$1,000
- Construction Oversight Field Visits: \$2,000
- Final Site Walk Through: \$1,000
- Contractor Coordination & Payment Authorization: \$800

The total cost to complete **Task 5 is \$4,800**

Project Schedule & Budget

Based on discussions with TRPD the project would be authorized in October or November and work would begin immediately. The overall schedule goal of the project would be to have the final design done by the end of 2021 for winter construction in 2022.

Task	Subtask	Cost
1 - Project Design		\$ 10,400.00
	Survey	
	Modeling Review	
	60% Design Plans & OPC	
	Review Meeting	
	Final Plans & OPC	
2 - Wetland Delineation		\$ 2,500.00
	Offsite Review & Wetland Determination	
	Field Wetland Determination	
	Wetland Delineation Report	
	Coordination Agency Approvals	
3 -Permitting		\$ 7,850.00
	WCA	
	Public Waters Mn DNR	
	USACOE	
	Pioneer Sarah Creek WMO	
	Coordination Agency Approvals	
4 -Quote Package & Solicitation		\$ 3,050.00
	Quote Package	
	Pre-Quote Meeting at site	
	Quote Tabulation	
	Recommendation of Award	
5 - Construction Administration		\$ 4,800.00
	Construction field Staking	
	Construction Field Visits - 5	
	Final Site walkthrough	
	Contractor Coordination	
TOTAL		\$ 28,600.00

Thank you for providing an opportunity for our team to share our proposed scope of work. Should you have any questions, or would like to discuss our project approach further, please let us know.

Regards,

Stantec Consulting Services Inc.



Seth Bossert PLA
Landscape Architect
Phone: 763 479 4252
seth.bossert@stantec.com



Ed Matthiesen
Principal, Senior Civil Engineer
Phone: 763 252 6851
edward.matthiesen@stantec.com

By signing this proposal, Three Rivers Park District authorizes Stantec to proceed with the services herein described and the Client acknowledges that it has read and agrees to be bound by the attached Professional Services Terms and Conditions.

This proposal is accepted and agreed on the 7 day of October, 2021.

Per: Three Rivers Park District

Luke Skinner, Associate Superintendent

Three Rivers Park District

Print Name & Title

Luke Skinner

Signature

Attachment: Attachment

c. C.C.

The following Terms and Conditions are attached to and form part of a proposal for services to be performed by Consultant and together, when the Client authorizes Consultant to proceed with the services, constitute the Agreement. Consultant means the Stantec entity issuing the Proposal.

DESCRIPTION OF WORK: Consultant shall render the services described in the Proposal (hereinafter called the "Services") to the Client.

TERMS AND CONDITIONS: No terms, conditions, understandings, or agreements purporting to modify or vary these Terms and Conditions shall be binding unless hereafter made in writing and signed by the Client and Consultant. In the event of any conflict between the Proposal and these Terms and Conditions, these Terms and Conditions shall take precedence. This Agreement supercedes all previous agreements, arrangements or understandings between the parties whether written or oral in connection with or incidental to the Project.

COMPENSATION: Payment is due to Consultant upon receipt of invoice. Failure to make any payment when due is a material breach of this Agreement and will entitle Consultant, at its option, to suspend or terminate this Agreement and the provision of the Services. Interest will accrue on accounts overdue by 30 days at the lesser of 1.5 percent per month (18 percent per annum) or the maximum legal rate of interest. Unless otherwise noted, the fees in this agreement do not include any value added, sales, or other taxes that may be applied by Government on fees for services. Such taxes will be added to all invoices as required. The Client will make payment by Electronic Funds Transfer when requested by Stantec.

NOTICES: Each party shall designate a representative who is authorized to act on behalf of that party. All notices, consents, and approvals required to be given hereunder shall be in writing and shall be given to the representatives of each party.

TERMINATION: Either party may terminate the Agreement without cause upon thirty (30) days notice in writing. If either party breaches the Agreement and fails to remedy such breach within seven (7) days of notice to do so by the non-defaulting party, the non-defaulting party may immediately terminate the Agreement. Non-payment by the Client of Consultant's invoices within 30 days of Consultant rendering same is agreed to constitute a material breach and, upon written notice as prescribed above, the duties, obligations and responsibilities of Consultant are terminated. On termination by either party, the Client shall forthwith pay Consultant all fees and charges for the Services provided to the effective date of termination.

ENVIRONMENTAL: Except as specifically described in this Agreement, Consultant's field investigation, laboratory testing and engineering recommendations will not address or evaluate pollution of soil or pollution of groundwater. Consultant is entitled to rely upon information provided by the Client, its consultants, and third-party sources provided such third party is, in Consultant's opinion, a reasonable source for such information, relating to subterranean structures or utilities. The Client releases Consultant from any liability and agrees to defend, indemnify and hold Consultant harmless from any and all claims, damages, losses and/or expenses, direct and indirect, or consequential damages relating to subterranean structures or utilities which are not correctly identified in such information.

PROFESSIONAL RESPONSIBILITY: In performing the Services, Consultant will provide and exercise the standard of care, skill and diligence required by customarily accepted professional practices normally provided in the performance of the Services at the time and the location in which the Services were performed.

INDEMNITY: The Client releases Consultant from any liability and agrees to defend, indemnify and hold Consultant harmless from any and all claims, damages, losses, and/or expenses, direct and indirect, or consequential damages, including but not limited to attorney's fees and charges and court and arbitration costs, arising out of, or claimed to arise out of, the performance of the Services, excepting liability arising from the sole negligence of Consultant.

LIMITATION OF LIABILITY: It is agreed that, to the fullest extent possible under the applicable law, the total amount of all claims the Client may have against Consultant under this Agreement, including but not limited to claims for negligence, negligent misrepresentation and/or breach of contract, shall be strictly limited to the lesser of professional fees paid to Consultant for the Services or \$50,000.00. No claim may be brought against Consultant more than two (2) years after the cause of action arose. As the Client's sole and exclusive remedy under this Agreement any claim, demand or suit shall be directed and/or asserted only against Consultant and not against any of Consultant's employees, officers or directors.

Consultant's liability with respect to any claims arising out of this Agreement shall be absolutely limited to direct damages arising out of the Services and Consultant shall bear no liability whatsoever for any consequential loss, injury or damage incurred by the Client, including but not limited to claims for loss of use, loss of profits and/or loss of markets.

In no event shall Stantec's obligation to pay damages of any kind exceed its proportionate share of liability for causing such damages.

DOCUMENTS: All of the documents prepared by or on behalf of Consultant in connection with the Project are instruments of service for the execution of the Project. Consultant retains the property and copyright in these documents, whether the Project is executed or not. These documents may not be used for any other purpose without the prior written consent of Consultant. In the event Consultant's documents are subsequently reused or modified in any material respect without the prior consent of Consultant, the Client agrees to defend, hold harmless and indemnify Consultant from any claims advanced on account of said reuse or modification.

Any document produced by Consultant in relation to the Services is intended for the sole use of Client. The documents may not be relied upon by any other party without the express written consent of Consultant, which may be withheld at Consultant's discretion. Any such consent will provide no greater rights to the third party than those held by the Client under the contract and will only be authorized pursuant to the conditions of Consultant's standard form reliance letter.

Consultant cannot guarantee the authenticity, integrity or completeness of data files supplied in electronic format ("Electronic Files"). Client shall release, indemnify and hold Consultant, its officers, employees, Consultant's and agents harmless from any claims or damages arising from the use of Electronic Files. Electronic files will not contain stamps or seals, remain the property of Consultant, are not to be used for any purpose other than that for which they were transmitted, and are not to be retransmitted to a third party without Consultant's written consent.

FIELD SERVICES: Consultant shall not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with work on the Project, and shall not be responsible for any contractor's failure to carry out the work in accordance with the contract documents. Consultant shall not be responsible for the acts or omissions of any contractor, subcontractor, any of their agents or employees, or any other persons performing any of the work in connection with the Project. Consultant shall not be the prime contractor or similar under any occupational health and safety legislation.

GOVERNING LAW/COMPLIANCE WITH LAWS: The Agreement shall be governed, construed and enforced in accordance with the laws of the jurisdiction in which the majority of the Services are performed. Consultant shall observe and comply with all applicable laws, continue to provide equal employment opportunity to all qualified persons, and to recruit, hire, train, promote and compensate persons in all jobs without regard to race, color, religion, sex, age, disability or national origin or any other basis prohibited by applicable laws.

DISPUTE RESOLUTION: If requested in writing by either the Client or Consultant, the Client and Consultant shall attempt to resolve any dispute between them arising out of or in connection with this Agreement by entering into structured non-binding negotiations with the assistance of a mediator on a without prejudice basis. The mediator shall be appointed by agreement of the parties. The Parties agree that any actions under this Agreement will be brought in the appropriate court in the jurisdiction of the Governing Law, or elsewhere by mutual agreement. Nothing herein however prevents Consultant from any exercising statutory lien rights or remedies in accordance with legislation where the project site is located.

ASSIGNMENT: The Client shall not, without the prior written consent of Consultant, assign the benefit or in any way transfer the obligations under these Terms and Conditions or any part hereof.

SEVERABILITY: If any term, condition or covenant of the Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions of the Agreement shall be binding on the Client and Consultant.

FORCE MAJEURE: Any default in the performance of this Agreement caused by any of the following events and without fault or negligence on the part of the defaulting party shall not constitute a breach of contract, labor strikes, riots, war, acts of governmental authorities, unusually severe weather conditions or other natural catastrophe, disease, epidemic or pandemic, or any other cause beyond the reasonable control or contemplation of either party. Nothing herein relieves the Client of its obligation to pay Consultant for services rendered.

COVID-19: The parties acknowledge the ongoing COVID-19 pandemic and agree that the fee and schedule in the proposal is based on what is currently understood. Where conditions change, the parties may have further discussions to manage and mitigate the impact of this evolving situation on the Project.

CONTRA PROFERENTEM: The parties agree that in the event this Agreement is subject to interpretation or construction by a third party, such third party shall not construe this Agreement or any part of it against either party as the drafter of this Agreement.

BUSINESS PRACTICES: Each Party shall comply with all applicable laws, contractual requirements and mandatory or best practice guidance regarding improper or illegal payments, gifts, or gratuities, and will not pay, promise to pay or authorize the payment of any money or anything of value, directly or indirectly, to any person (whether a government official or private individual) or entity for the purpose or illegally or improperly inducing a decision or obtaining or retaining business in connection with this Agreement or the Services.



Watershed-Based Implementation Funding Policy – FY22-23

From the Board of Water and Soil Resources, State of Minnesota

Effective Date: 10/27/21

Approval: Board Decision #21-~~XX~~

Duration: Availability and use of funds appropriated by Laws of Minnesota 2021, 1st Special Session, Chapter 1, Article 2, Section 6 (a).

Policy Statement

The Clean Water Fund was established to implement part of Article XI, Section 15, of the Minnesota Constitution, and Minnesota Statutes §114D with the purpose of protecting, enhancing, and restoring water quality in lakes, rivers, and streams and to protect groundwater and drinking water sources from degradation.

Reason for the policy

The purpose of this policy is to provide expectations for implementation activities conducted via the Board of Water and Soil Resources (BWSR) Clean Water Fund (CWF) Watershed-based Implementation Funding program as defined by the Clean Water Fund appropriation under Laws of Minnesota 2021, 1st Special Session, Chapter 1, Article 2, Section 6 (a).

These funds are specifically to be used to advance Minnesota's water resource goals through prioritized and targeted cost-effective actions with measurable water quality results.

BWSR will use grant agreements for assurance of deliverables and compliance with appropriate statutes, rules and established policies. Willful or negligent disregard of relevant statutes, rules and policies may lead to imposition of financial penalties or future sanctions on the grant recipient.

BWSR's Grants Administration Manual (<http://www.bwsr.state.mn.us/grants/manual/>) provides the primary framework for local management of all state grants administered by BWSR.

Program Requirements

1. Local Governmental Unit Eligibility Criteria

For areas outside of the seven-county Twin Cities Metropolitan Area: ~~To be eligible, counties, soil and water conservation districts, watershed management organizations, watershed districts and other~~ local governments ~~that must~~ have a current state approved and locally adopted comprehensive watershed management plan authorized under Minnesota statutes §103B.101, Subd. 14 or §103B.801. ~~To be eligible, local governments must~~ and have entered into an implementation agreement with other members of the planning partnership. If a local government within the geographic area of the plan has not adopted the plan, these funds can still be spent on implementation in that area by another eligible local government.

In the seven-county Twin Cities Metropolitan (Metro) Area: ~~To be eligible, counties, watershed districts, watershed management organizations, soil and water conservation districts, and municipalities¹ having must~~ have a current state approved and locally adopted watershed management plan as required under §103B.231, county groundwater plan authorized under §103B.255, or soil and water conservation district comprehensive plan under Minnesota statutes §103C.331, Subd. 11. Participants, including one representative from each watershed district, watershed management organization, soil and water conservation district², county with a county groundwater plan, and ~~at least no more than~~ two municipalities, must coordinate within the designated watershed-based funding boundaries ~~to develop before submitting~~ a watershed-based funding budget request that is prioritized, targeted and measurable. BWSR reserves the right for the Executive Director to determine if sufficient coordination exists to meet the goals of the program. Appeals of an Executive Director decision may be made to the BWSR Central Region Committee.

Commented [A1]: Placeholder for Committee discussion

All recipients must be in compliance with applicable federal, State, and local laws, policies, ordinances, rules, and regulations. Recipients who have previously received a grant from BWSR must be in compliance with BWSR requirements for grantee website and eLINK reporting before grant execution and payment.

2. Match Requirements

A non-State match equal to at least 10% of the amount of the Watershed-Based Implementation Funding received is required. Match can be provided by landowners, land occupiers, private organizations, local governments or other non-State sources and can be in the form of cash or the cash value of services or materials contributed to the accomplishment of grant objectives.

3. Eligible Activities

The primary purpose of activities funded through this program is to implement projects and programs that protect, enhance, and restore surface water quality in lakes, rivers, and streams; protect groundwater from degradation; and protect drinking water sources. Eligible activities must be identified in the implementation

¹ Municipalities (cities and townships) in the seven-county metropolitan area are eligible if they have a water plan that has been approved by a watershed district or a watershed management organization as provided under Minn. Stat. 103B.235.

² Including Hennepin and Ramsey Counties if they have an annual work plan authorized under Minn. Statute 103C.331.

section of a state approved, locally adopted comprehensive watershed management plan developed under Minnesota statutes §103B.101, Subd. 14 or §103B.801, watershed management plan required under §103B.231, county groundwater plan authorized under §103B.255, or Metro soil and water conservation district ~~annual work XX plan~~ authorized under §103C.331 and the activity must have a primary benefit towards water quality. Activities must be first submitted through a budget request and work plan that will be reviewed by BWSR. The work plan must be approved by BWSR prior to funds being distributed.

Commented [A2]: Placeholder for Committee discussion

Eligible activities can consist of structural practices and projects; non-structural practices and programs; program and project support, including staffing; and grant management and reporting. Technical and engineering assistance necessary to implement these activities are considered essential and are eligible to be included. Activities that result in multiple benefits are strongly encouraged.

- 3.1 **Effective Life.** All structural practices must be designed and maintained for a minimum effective life of ten years for best management practices and 25 years for capital improvement practices. The beginning date for a practice's effective life is the same date final payment is approved and the project is considered complete. Where questions arise under this section, the effective lifespan of structural practices and projects shall be defined by current and acceptable design standards or criteria as defined in Section 3.7.
- 3.2 **Project Assurances.** The grantee must provide assurances that ~~land owners~~landowners or land occupiers receiving this funding will keep the practice in place for its intended use for the expected lifespan of the practice. Such assurances may include easements, deed recordings, enforceable contracts, performance bonds, letters of credit, and termination or performance penalties. BWSR may allow replacement of a practice or project that does not comply with expected lifespan requirements with a practice or project that provides equivalent water quality benefits. See also the Projects Assurances chapter of the Grants Administration Manual.
- 3.3 **Operation, Maintenance and Inspections.** All practice designs must include identification of operation and maintenance activities specific to the installed practices. An operation and maintenance plan is critical to ongoing performance of installed practices as well as to planning and scheduling those activities and must be prepared by designated technical staff for the life of the practice. An inspection schedule, procedure, and assured access to the practice site shall be included as a component of maintaining the effectiveness of the practice.
- 3.4 **Technical and Administrative Expenses.** Eligible activities include actual technical and administrative expenses to advance plan implementation, site investigations and assessments, design and cost estimates, construction or installation supervision, and inspections. Technical and administrative expenditures must be documented according to the Grants Administration Manual.
- 3.5 **Project Support.** Eligible activities include ~~community engagement, education and outreach~~public participation and engagement, equipment, and other activities, ~~which directly support or supplement the goals and outcomes expected with the necessary for the~~ implementation of water quality practices and programs items identified in the plan consistent with the purposes of these funds. Project support

expenditures must be appropriately documented according to the Grants Administration Manual. Refer to guidance within the Grants Administration Manual for Capital Equipment Purchases.

3.6 Grant Management and Reporting. Eligible activities include local grant administration, management, and reporting that are directly related to and necessary for implementing the project or activity. All grant recipients are required to report on the outcomes, activities, and accomplishments of Clean Water Fund grants. Grant management and reporting expenditures must be documented according to the Grants Administration Manual.

3.7 Practice Standards. All practices must be consistent with the Natural Resource Conservation Service (NRCS) Field Office Technical Guide (FOTG), Minnesota Stormwater Manual, or be professionally accepted engineering or ecological practices. Design standards for all practices must include specifications for operation and maintenance for the effective life of the given practice, including an inspection schedule and procedure.

~~**Feedlots/Livestock Waste Management Practices.**~~ Eligible activities are limited to ~~livestock management systems/facilities~~ that were constructed before **October 23, 2000**; and livestock operations registered with the Minnesota Pollution Control Agency Database or its equivalent, not classified as a Concentrated Animal Feeding Operation (CAFO), and with less than 500 animal units (AUs) in accordance with Minnesota Rule Chapter 7020. BWSR reserves the right to deny, postpone or cancel funding where financial penalties related to ~~livestock waste management~~ violations have been imposed on the operator. ~~Eligible practices and project components must meet all applicable local, State, and federal standards and permitting requirements.~~

- a. Funded projects must ~~comply~~be in compliance with standards in MN Rule Chapter 7020 upon completion.
- b. Eligible practices are limited to best management practices listed by the Minnesota NRCS.
- c. Eligible practices and project components must meet all applicable local, State, and federal standards and permitting requirements.
- d. Feedlot roof structures are eligible up to \$100,000 per project with state grant funds and not to exceed 100% of construction costs. ~~Funding is not eligible for projects already receiving flat rate payment equaling or exceeding this amount from the NRCS or other State grant funds.~~
- e. Feedlot relocations are eligible, up to \$100,000 per project with state grant funds and not to exceed 100% of the construction costs. ~~Funding is not eligible for projects already receiving flat rate payment equaling or exceeding this amount from the NRCS or other State grant funds.~~ The existing eligible feedlot must be permanently closed in accordance with local and State requirements. The existing and relocated livestock waste management systems sites are considered one project for grant funding.

Subsurface Sewage Treatment Systems

- a. Local governments should first exhaust SSTS grant funding from the Minnesota Pollution Control Agency.

~~a-b.~~ Eligible activities are limited to identified imminent threat to public health systems (ITPHS) and systems that fail to protect groundwater. Project landowners must meet low income thresholds. Low income guidelines from U.S Rural Development are strongly encouraged as the basis for the definition of low income.

~~c.~~ Proposed community wastewater treatment solutions involving multiple landowners are eligible for funding, but must be listed on the MPCA's Project Priority List (PPL) and have a Community Assessment Report (CAR) or facilities plan [Minn. Rule 7077.0272] developed prior to work plan submittal. For community wastewater system applications that include ITPHS, systems that fail to protect groundwater are also eligible.

~~b-d.~~ In an unsewered area that is connecting into a sewer line to a municipal wastewater treatment plant (WWTP), the costs associated with connecting the home to the sewer line is eligible for funding if the criteria in b. and c. above are met.

~~c.~~ Connecting a home to a sewer line and/or municipal waste water/wastewater treatment plant (WWTP) in an unsewered area is eligible, if the criteria in a. or b. above are met.

~~Multipurpose Drainage Management Systems.~~ Funds can be used as an external source of funding for Minnesota Statutes § 103E.011 Subd 5 to facilitate multi-purpose drainage management practices with a primary purpose of improving water quality to reduce erosion and sedimentation, and reduce peak flows and flooding, and improve water quality, while protecting drainage system efficiency and reducing drainage system maintenance for priority Chapter 103E drainage systems.

~~Eligible activities must be conducted on, adjacent to, or within the watershed of a priority Minnesota Statutes Chapter 103E Drainage System(s), defined as an established system that has priority sediment and/or water quality concerns, and may include structural practices meeting the primary purpose to protect or improve water quality under Minnesota Statutes 103E.015.~~

~~Any storage and treatment wetland restoration requires a perpetual easement for storage and treatment and associated benefits to be held by the Chapter 103E drainage system. Easements must be approved by BWSR and the total state easement payment, shall not exceed current standard Reinvest in Minnesota (RIM) rates.~~

3.8 Non-Structural Practices and Measures. Eligible practices include non-structural practices and activities that supplement or exceed current minimum State standards or procedures for protection, enhancement, and restoration of water quality in lakes, rivers, and streams or that protect groundwater from degradation. Non-structural vegetative practices must follow the Native Vegetation Establishment and Enhancement Guidelines: <https://bwsr.state.mn.us/vegetation-establishment-and-management> ~~[www.bwsr.state.mn.us/native-vegetation/seeding-guidelines.pdf](https://bwsr.state.mn.us/native-vegetation/seeding-guidelines.pdf)~~.

a. In-lake or in-channel treatment. Eligible practices include management practices such as rough fish management, vegetation management, lake drawdown, and alum treatments that have been identified as an implementation activity in a TMDL study or Watershed Restoration and Protection Strategies report and/or in a comprehensive watershed management plan or metro watershed management plan. Eligible expenses include only initial costs for design and implementation. All subsequent applications and treatments under this subsection are considered to be a local operation and maintenance expense

responsibility. A feasibility study must be completed, reviewed and approved by BWSR staff prior to these activities being proposed in a grant work plan. The feasibility study must include:

- Lake and watershed information (at minimum, include lake morphology and depth, summary of water quality information, and the assessment of aquatic invasive species);
- Description of internal load vs. external load nutrient reductions;
- History of projects completed in the watershed, as well as other in-lake ~~treatments~~ activities if applicable;
- Cost benefit analysis of ~~treatment~~ options considered;
- Projected effective life of the proposed ~~treatment~~ activities;
- Expected water quality outcome;
- Plan for monitoring surface water quality to assure the project's total phosphorus goal will be achieved during the project's effective life, and
- For activities related to rough fish (example carp), the feasibility study must also include:
 - Methods used to estimate adult and juvenile carp populations;
 - Description of the known interconnectedness of waterbodies (lakes, ponds, streams, wetlands, etc.);
 - ~~Identif~~ ed ~~ication~~ of nursery areas;
 - Methods used to track carp movement;
 - Proposed actions to limit recruitment and movement; and
 - Proposed actions to reduce adult carp populations,

b. Duration. ~~Incentives~~ Projects proposing to install or adopt non-structural land management practices must have a minimum duration of 3 years with a goal of ongoing landowner adoption unless otherwise approved by BWSR. Any projects proposing ~~incentives~~ a duration other than 3 years must be reviewed by BWSR staff and approved by the Assistant Director of Regional Operations prior to work plan approval.

c. Easements. Eligible practices include easements. Easements and payment amounts must be reviewed and approved by BWSR staff prior to expenditure of grant funds to acquire an easement. When implementing perpetual easements, state easement payments shall not exceed current standard Reinvest in Minnesota (RIM) rates.

d. Ordinance Development. Eligible practices include development of ordinances to protect water quality (example: Minimal Impact Design Standards) that supplement existing federal/state/local requirements.

3.9 Incentives. ~~Eligible practices may include incentives to help landowners mitigate risk.~~ Incentives to install or adopt ~~land best~~ management practices that improve or protect water quality are an eligible use of funds. Incentive payments should be reasonable and justifiable, supported by grant recipient policy, consistent with prevailing local conditions, and must be based on established standards. BWSR reserves the right to review and approve incentive payment rates established by grant recipient policy. Incentives to install or adopt land best management practices can have a maximum duration of 3 years with a goal

of ongoing landowner adoption unless otherwise approved by the Assistant Director of Regional Operations prior to work plan approval.

4. Ineligible Activities

The following activities will not be considered:

- a. Activities that do not have a primary benefit of groundwater and surface water quality.
- b. Water quality monitoring such as, but not limited to, routine, baseline, diagnostic, or effectiveness monitoring. This includes both surface and groundwater monitoring activities.~~Water quality monitoring (such as, but not limited, to: diagnostic, effectiveness, routine and/or baseline).~~
- c. Household water conservation appliances and water fixtures.
- d. Wastewater treatment systems with the exception of certain Subsurface Sewage Treatment Systems (see 3.7).
- e. Municipal drinking water supply facilities or individual drinking water treatment systems.
- f. Stormwater conveyances that collect and move runoff, but do not provide water quality treatment benefit.
- g. Replacement, realignment or creation of bridges, trails or roads.
- h. Aquatic plant harvesting.
- i. Routine maintenance activities or repair of capital equipment and infrastructure within the effective life of existing practices or projects.
- j. Feedlots (see 3.7)
 - 1) Feedlot expansions beyond state registered number of animal units.
 - 2) Slats placed on top of manure storage structures.
- k. Subsurface Sewage Treatment Systems (SSTS)
 - 1) Small community wastewater treatment systems serving over 10,000 gallons per day with a soil treatment system, and
 - 2) A small community wastewater treatment system that discharges treated sewage effluent directly to surface waters without land treatment.
- l. Drainage management
 - 1) Drain tile, except for tile outlets required for water and sediment control basins, tile required to make eligible drainage water management practices function, tile required to collect and move runoff to treatment system, and dense pattern tile to replace open tile inlet(s).
 - 2) Ditching except if needed for the creation of a storage and treatment wetland restoration.
 - 3) Back-flow preventing flap gates on side inlet structure pipes where a system-wide analysis has not been completed.
 - 4) Continuous berms greater than an average of 3 feet high (above existing ground) along Chapter 103E drainage ditches.
- m. Fee title land acquisition (costs may count towards match).
- n. Buffers or other alternative practices that are required by law (e.g., Buffer Law, Drainage Law, Shoreland Law).
- o. Contribution to a contingency or reserve fund or payment(s) to an equipment replacement fund that extends beyond the grant agreement period.

- p. Activities that outlet landlocked basins.
- g. Development and delivery of educational activities and curriculum that do not support or lead to the implementation of water quality practices.
- r. Components of projects needed to meet the statutory requirements of 103E Drainage Law.
- s. Any project that contributes to, or otherwise is used to replace wetlands impacted under the Wetland Conservation Act (per Minn. Rules 8420).
- t. Activities required under the Groundwater Protection Rule.

5. Technical Expertise

The grantee has the responsibility to ensure that the designated technical staff have the appropriate technical expertise, skills and training for their assigned role(s). See also the Technical Quality Assurances chapter of the Grants Administration Manual.

- 5.1 Technical Assistance Provider.** Grantees must identify the technical assistance provider(s) for the practice or project and their credentials for providing this assistance. The technical assistance provider(s) must have appropriate credentials for practice investigation, design, and construction. Credentials can include conservation partnership Job Approval Authority (JAA), also known as technical approval authority; applicable professional licensure; reputable vendor with applicable expertise and liability coverage; or other applicable credentials, training, and/or experience.
- 5.2 Practice or Project Construction and Sign-off.** Local governments receiving these funds shall have the assigned technical assistance provider(s) certify that the practice or project was properly installed and completed according to the plans and specifications, including technically approved modifications, prior to authorization for payment.
- 5.3 BWSR Review.** BWSR reserves the right to review the qualifications of all persons providing technical assistance and review the technical project design if a recognized standard is not available.

6. Grant Administration

- 6.1 Work Plans, Reporting, and Reconciliation.** BWSR staff is authorized to develop grant agreements and requirements and processes for work plans, project outcomes reporting, fiscal reconciliations, and grant closeouts. All grantees must follow the Grants Administration Manual policy and guidance including requirements for proposed work plan revisions and grant amendments. BWSR reserves the right to:
 1. Consider the extent of direct implementation activities and proposed outcomes in the approval of grant work plan;
 2. Not approve all or a portion of a work plan if proposed work is not consistent with the purposes of these funds;
 3. Modify, suspend, or cancel the grant agreement at any time if work under the grant agreement is found by BWSR to be unsatisfactory.

In the event there is a violation of the terms of the grant agreement, BWSR will enforce the grant agreement and evaluate appropriate actions, up to and including repayment of 100% of grant funds.

6.2. Approval of Expenditures. The grantee board has the authority and responsibility to approve the expenditure of funds within their own organization. The approval or denial of individual expenditures of funds must be documented in the grantee board's meeting minutes.

6.3 Failure to Maintain Practices. Funds repaid to a grantee from a landowner or other land occupier who has failed to maintain a practice for its effective life must be reallocated to a local cost share program or project account consistent with MN Statutes Chapter 114D.50, less the administrative cost of the grantee.

7. Assurance Measures

Watershed-based Implementation Funding Assurance Measures are based upon fiscal integrity and accountability for achieving measurable progress towards water quality elements of watershed management or comprehensive watershed management plans. Assurance measures will be used as a means to help grantees meaningfully assess, track, and describe the use of these grant funds to achieve clean water goals through prioritized, targeted, and ~~measurable~~measurable implementation. The following assurance measures are supplemental to existing reporting and on-going grant monitoring efforts.

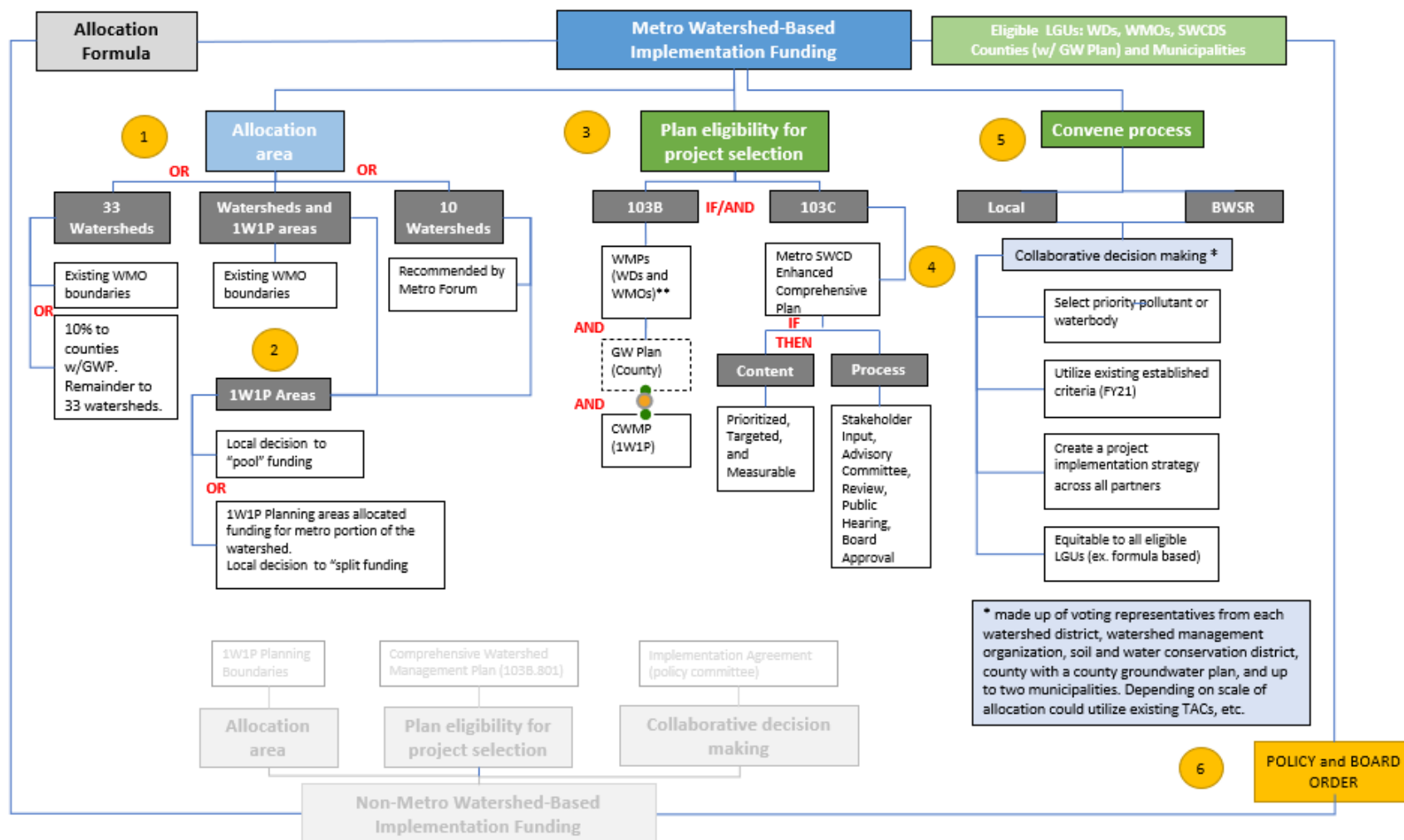
1. Prioritized, targeted, and measurable work is making progress toward achieving clean water goals.
2. Programs, projects, and practices are being implemented in priority areas.
3. Grant work is on-schedule and on-budget.
4. Leverage of non-state funds.

History

This policy may be reviewed annually and updated as needed.

<u>Description</u>	<u>Date</u>
<u>This policy was originally created in 2019.</u>	<u>9/25/19</u>
<u>This policy was updated in 2021 to add a few ineligible activities and clarify language related to eligible activities and entities.</u>	<u>XX</u>

The diagram below shows allocation areas options, plan eligibility for project selection, and convene process for FY22-23 Metro Watershed-based Implementation Funding as presented to the BWSR Grants Program and Policy Committee (GPPC) on September 14th, 2021.



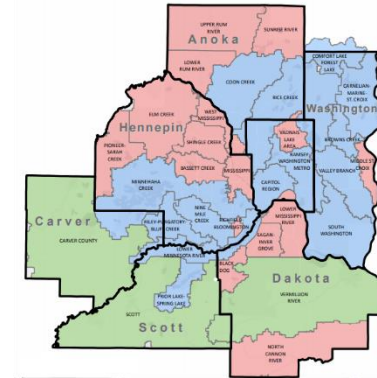
A portion of WBIF dollars (~ \$6M) are allocated to the Twin Cities Metro Area. Allocation areas define the geographic boundary that the funding formula is applied to in order for BWSR to distribute funds. The funding formula is 90% private lands and 10% public waters. The three options for allocation area for the Twin Cities Metro Area are described in more detail below.

33 Watershed Areas

Notes:

- Allocation areas are consistent with Metro Watershed District /Water Management Organization boundaries (see map)
- Allocation areas are smaller than FY20-21

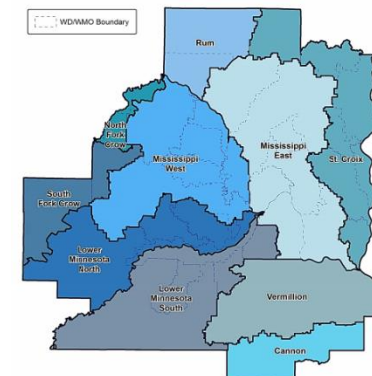
**Additional option is to first allocate 10% of Metro WBIF funds to Counties with approved Groundwater Plans and then allocate remaining dollars to 33 Watershed Areas.*



10 Watershed Areas

Notes:

- Allocation areas are consistent with major watersheds boundaries except Mississippi Twin Cities and Lower Minnesota are split by their rivers (see map)
- Allocation areas are the same as FY20-21



Watersheds and One Watershed, One Plan (1W1P) Areas

Notes:

- Allocation areas are consistent with Metro Watershed District /Water Management Organization boundaries and areas that have completed Comprehensive Local Watershed Management Plans developed under the One Watershed, One Plan Program.

2

One Watershed, One Plan (1W1P) Areas

Notes:

- Local decision to “pool” funding from smaller allocation areas to a larger allocation area covered by a Comprehensive Watershed Management Plan developed under the One Watershed, One Plan Program. Ability to pool funding same as FY20-21.

**Additional option is to first allocate Metro WBIF funds to areas of the Metro covered by Comprehensive Watershed Management Plans developed under the One Watershed, One Plan Program and it can then be a local decision to split funding to smaller geographic areas if desired.*

3

Plan Eligibility for project selection

The FY22-23 WBIF Policy will list the plans that are eligible for local governments to choose priority projects from.

Plan eligibility that is the same as FY20-21

Eligible activities must be identified in the implementation section of a state approved, locally adopted:

- Comprehensive watershed management plan developed under Minnesota statutes §103B.101, Subd. 14 or §103B.801
- Watershed management plan required under §103B.231
- County groundwater plan authorized under §103B.255

Note: Local governments eligible to receiving Watershed-based Implementation Funding are:

- Watershed Districts
- Water Management Organizations
- Soil and Water Conservation Districts
- Counties
- Municipalities

Local Government Eligibility is also the same as FY20-21

4

If a SWCD determines that an eligible 103B plan does not sufficiently include their projects/activities, then the SWCD can choose to develop an Enhanced SWCD Plan. If a SWCD determines that a 103B plan includes their projects/activities, the SWCD can work through the 103B plans and would not need to develop an Enhanced SWCD plan.

This plan eligibility component is different than FY20-21 (see “Metro Enhanced SWCD Comprehensive Plan Options” for enhanced process and plan content changes).

Eligible activities must be identified in the implementation section of a state approved, locally adopted:

- Metro SWCD Enhanced Comprehensive Plan (10 yr. duration)
- Metro SWCD Enhanced Comprehensive Plan Supplement (2-5 yr. duration)
- Metro SWCD Biennial Work Plan (2 yr. duration)

5

Convene Process

The convene process is defined as the process where local governments discuss and select eligible water quality projects from the plans identified in  and .

Voting representatives the same as FY20-21

- For each allocation area, there will be one voting representative from each watershed district, watershed management organization, soil and water conservation district, county with a county groundwater plan, and up to two municipalities within each allocation area. Depending on the scale of the allocation area, partners could utilize existing Technical Advisory Committees, etc.

Project Selection - convene partners could use any of the following decision processes to select projects for funding but BWSR would be open to discussing additional ideas.

- Select priority pollutants and/or waterbodies/groundwater areas as focus to select projects
- Utilize the same or similar criteria partners established in the FY20-21 Metro Convene Process
- Create a project implementation strategy (e.g., project priority list) of activities from existing plans
- Distribute the funds in an equitable manner (e.g., formula based) to all eligible entities (note this is the same method used by one area in FY20-21)

Convene Process Facilitation

- If funding is allocated to 10 Watershed Areas, default would be the same as FY20-21 in that BWSR staff would facilitate convene meetings unless partners would prefer LGU lead facilitation
- If funding is allocated to 33 Watershed Areas, default would be the same as FY18-19 in that local government staff would facilitate convene meetings unless partners would prefer BWSR lead facilitation

6

Anticipated Timeline

- October 8, 2021 - BWSR Grants Program & Policy Committee meets to consider staff recommendations on the FY22-23 Watershed-based Implementation Funding Program.
- October 27, 2021 - BWSR Board Meeting: consider Grant Program & Policy Committee recommendations on FY22-23 Watershed-based Implementation Funding Program.
- November 2021 - FY22 WBIF dollars available
- July 2022 – FY23 WBIF dollars available (note that Metro would receive funding allocations in FY23)

September 27, 2021

Marcey Westrick, Grants and Central Region Manager
Minnesota Board of Water and Soil Resources
520 Lafayette Road North
St. Paul, Minnesota 55155

RE: Comments on Draft FY22-23 Watershed-based Implementation Funding Program

Thank you for the opportunity to comment on the FY22-23 Watershed-Based Implementation Funding Program (WBIFP) policy being considered by the BWSR. The 7-Metropolitan Soil and Water Conservation Districts have reviewed the draft policy and submit the following comments.

We appreciate the BWSR bringing forward the option to allow Metro SWCDs equal opportunity to develop Comprehensive Plans to identify and prioritize projects under the WBIFP. This is a statutory obligation of our elected Boards under Minnesota Statute 103C and 103B.801. We fully support this option under Plan Eligibility and consider it a statutory requirement that BWSR needs to provide to all soil and water conservation districts throughout Minnesota.

We have no strong opinion on whether the BWSR allocation areas should be at a 33-scale or 10-scale. We are willing to participate in the convene and decision making process at either level. At this time, we do not support the third option which is listed as Watersheds and 1W1P areas. Additional explanations would help us better understand this option but it appears to focus on whether some of the 10-scale watershed are wholly or partially located in the Metro Area. The 7-County Metropolitan Area is a defined geographical boundary – if allocations go this route then all major watersheds identified in the State of Minnesota, regardless whether they are within or outside the Metropolitan Area, should develop a comprehensive watershed management plan as described under 103B.801. Also, since participation by Metropolitan local government units is optional, decisions have already been made by many local units of government on whether to participate in comprehensive watershed management plans that exist outside the Metropolitan Area. Providing flexibility for the local collaborative decision making team to pool or split funding from smaller allocation area to larger allocation areas is supported.

The convene process is where local collaboration occurs to make decisions. Different approaches have been taken in the past with the BWSR having a large facilitation role under FY20-21 and local partners leading the convene process under the FY18-19 WBIFP. We do not support the use of existing Technical Advisory Committee's (TAC) should the policy decision be to allocate funds at the 33-scale. Participants on existing TACs as referenced in the draft policy varies and includes state agencies, regional agencies, SWCDs, counties, cities, nonprofits, and in some cases citizens. We noted that one Metropolitan LGU appears to have over 80 members on their TAC. We also have multiple TACs for different governance structures that cover the same geographical areas - for example a County Groundwater Plan TAC and a WMO/WD Plan TAC. We support a consistent approach to the local decision making process to include one voting representative from each WMO/WD, one from SWCD, one from County and up to two from cities/townships. It was also noted that under 103B.801 policy for Comprehensive Watershed Management Plans and the draft policy for Enhanced

SWCD Comprehensive Plans, the term TAC is not used; rather these policies just refer to the need to develop an Advisory Committee. At a minimum, clarity on who appoints, who can participate, and how many can participate in the local decision making process is necessary to avoid an unbalanced process.

Again, thank you for the opportunity to comment.

Metro SWCDs
Hennepin County SWCD

MEMORANDUM

TO: Pioneer-Sarah Creek Watershed Management Commission
FROM: Andrew Vistad, Hakanson-Anderson
DATE: October 15, 2021
SUBJECT: Staff Report

1. **2016-05 Proto Labs Parking Lot Expansion, Maple Plain.** The Commission approved this project contingent upon three conditions. One condition remains open - receipt of an Operation and Maintenance agreement on the biofiltration basin per Staff findings dated September 6, 2016. The agreement has been signed but remains to be recorded on the property title.
2. **2017-03 Equestrian Facility (Bel Farms) Independence.** This is a 16.5-acre rural residential parcel located approximately 500 feet north of the intersection of CR6 and Nelson Road. The owner is proposing to construct a new garage/apartment, horse stall barn, indoor arena, outdoor arena, six grass and four sand paddocks for horses. Because this project disturbs greater than 1.0 acre and creates 3.1 acres of additional impervious area, it triggers the Commission's review for Rules D and E. Staff provided grading and erosion control approval contingent upon (1) the applicant assuming the risk and responsibility for any changes to the site plans necessary for final Commission approval and (2) the City of Independence approving a grading permit. In September 2017 the Commission approved the Stormwater Management Plan contingent upon receipt of an approved long-term pond/basin O&M plan between the landowner and City, to be recorded on the land title. No new information has been received.
3. **2017-05 Ostberg Equestrian Facility, Independence.** This is a 40-acre agriculture parcel located just southwest of the intersections of CSAH 6 and Game Farm Road. The owner is proposing to construct a new home, two garages, a horse stall barn, indoor arena, outdoor ring, eight horse paddocks and an access drive off of CSAH 6. The project will disturb 7 acres during construction and create 1.69 acres of new impervious areas. Because this project disturbs more than 1.0 acre and creates 1.7 acres of additional impervious area, it triggers the Commission's review for Rules D and E. There are also two wetlands that have been delineated on this site, so the Commission wetland buffer requirements (Rule I) are triggered. The project was approved by the Commission at their November 2017 meeting contingent upon receipt of an approved long-term pond/basin O&M plan between the landowner and the City, to be recorded on the land title. This information has not yet been received.
4. **2018-010 Chippewa Estates, Loretto.** This is a 1.54-acre parcel located in the far northeast corner of Loretto on Chippewa Road. The project is proposing to subdivide the lot into four single family residential lots and triggers the Commission's review for Rules D and E. At their August 16, 2018 meeting, the Commission approved Staff findings with three conditions regarding the operations and maintenance plan, sequencing, and retrofitting of the pond. The only remaining item necessary for final approval is the Operation and Maintenance agreement on the stormwater system. If the City chooses not to maintain the filter system, the applicant must provide an O&M maintenance plan that is acceptable to the City and the Commission and must be recorded on the title to the property.
5. **2018-017 Crow River Overlook, Greenfield.** This is a 42-acre agriculture parcel located on CR 10 just north of 84th Avenue. Approximately 38 acres are east of CR 10 and 4 acres are located west of CR 10 along the Crow River. The applicant proposes to subdivide the property into an 8 large lot residential development. Lot sizes will range from 2.85 acres up to 10.1 acres. One cul-de-sac street will be constructed for access to the lots, with one street platted for future access to the property east of this project. One additional outlot will remain on the west side of CR 10. This project was reviewed for Rules

D, E, F and I. Staff findings of January 16, 2019 were approved by the Commission at their January 17, 2019 meeting. Approval was contingent upon (1) an Operation and Maintenance agreement with city or HOA, (2) planting and seeding plans for the biofiltration basins and buffer areas that fall into the cropland areas that require seeding and (3) typical emergency overflow details noted on the plans. Items 2 and 3 have been completed; Staff are awaiting the O & M agreement.

6. 2019-03 John Sega 9255 CR 6, Independence. This is an existing 78-acre parcel located on CR 6 about one-quarter mile east of the county border. The owner is proposing to construct a new indoor riding arena, parking, drive lanes, future hay barn, shed and hot-walker ring. Because this project disturbs greater than 1.0 acres and creates 1.1 acres of additional impervious area, it triggers the Commission's review for Rules D and E. At their August meeting, the Commission approved this project conditioned on receipt of a long-term O & M plan meeting Commission requirements and recorded on the land title with a copy provided to the Commission.

7. 2019-05 Green Acres East, Greenfield. This is a six-lot residential subdivision proposed on 34 acres at Schendel Lake Drive and Pioneer Trail. Initial findings found the site plans did not meet the Commission's requirements. An updated wetland replacement plan was received on August 1 and re-noticed per WCA public notice requirements. An updated site plan was received on August 6. In their findings dated September 13, 2019 Staff recommended approval contingent upon (1) an operations and maintenance plan being developed for the infiltration basins and approved by the City of Greenfield and the Commission. The O & M plans must be recorded on the property titles on lots 4, 5 and 6 (unless an HOA will be responsible, then it will be required in the HOA deed documents) and (2) no wetland impacts can occur until (a) wetland replacement credit purchases from BWSR Bank Accounts 1546 and 1542 have been certified by BWSR or (b) a \$21,500 cash or letter of credit escrow is received by the Commission. This plan was originally approved with conditions by the Commission at the September 19, 2019 meeting.

The developer submitted significant site plan changes in October, removing wetland impacts and reducing the number of lots from six to three plus an outlot. An infiltration basin will still be installed on the outlot to mitigate future impervious surface. Because the plan revision is a reduction of the previously approved plan, Staff administratively approved the project contingent on the original requirement, an O&M agreement for the infiltration basin recorded on the property deed or association documents. No wetland impacts can occur from this project and any future wetland impacts will need to be reviewed by the WCA LGU to be approved.

8. 2019-08 Adams Pest Control, Medina. Adam's Pest Control is planning to expand their current Medina facility. This property is located on the north side of State Highway 55, just west of Willow Drive. The entire parcel is 46-acres, but only the southern portion (Lot 1-26.6 acres) is being proposed for development at this time. This site plan consists of two new buildings which includes an office building and a warehouse/maintenance building with parking. This project will disturb 10.9 acres and create 4.6 acres of new impervious areas. The Commission's stormwater management plan requires compliance with Rules D, E, F and I. At their November meeting, the Commission approved this project conditioned on an O&M plan for the basins being recorded on the title and provided to the Commission; construction sequencing details for the filter basins meeting Commission requirements; and wetland buffer planting and maintenance plans being provided for areas not in permanent vegetative cover.

9. 2020-007 CSAH 92 Safety Improvements. The intersection of CSAH 92 & TH 12 currently present safety issues for motorists. Hennepin county has produced a design that will realign CSAH92 and construct an overpass and roundabout to directly connect the norther and southern portions of the roadway. The construction will result in the creation of a new stream crossing of the Unnamed creek that connects Lake Robina with Pioneer Creek, which result in floodplain impacts. This project was reviewed for Rules D, E, F, H, and I.

10. **2021-001 CenterPoint Energy Gas Main.** Centerpoint energy is proposing to install a section of gas main along Highway 12. The gas main will be installed by horizontal directional drilling which is a trenchless method. The method does require some pits to be excavated to make the connection between gas main sections. Some of the pit locations fell within floodplain and wetland buffers. The project will also require some dewatering, which entails pumping water from either the excavated pits or adjacent wells to lower the ground water to facilitate connections. This project was reviewed for Rules E and I.
11. **2021-002 CSAH 92 Culvert Replacements.** Hennepin county is proposing roadway reconstruction for a section of CSAH 92 in Minnetrista and Independence. In conjunction with the roadway work multiple culverts are proposed to be replaced. The culvert replacements will be in kind and no hydraulic or hydrologic changes are proposed with this project. 1 cattle crossing structure is proposed to be removed. This project was reviewed for Rules D and E.
12. **2021-003 CSAH 50 Slope Stabilization.** Hennepin county is proposing slope stabilization for 2 segments of CSAH 50 adjacent to the South Fork Crow River. The slope stabilization will reinforce the toe of the slope within the river channel and complete soil stabilization practices on the upland slope. Culverts along CSAH 50 will also be lined in conjunction with this project. Project approval is recommended. This project was reviewed for Rules E, F, and H.
13. **2021-004 Schefers Hills.** This residential development is proposing to split a 26-acre parcel into two lots. Part of the project will be to add additional width to Pete Drive which will serve as access to the proposed parcels. Erosion and sediment control will be installed as part of this project. Project approval is recommended contingent upon Buffer strip monumentation be show on the plans and installed as part of this development. This project was reviewed for Rules E and I.
14. **2021-005 Town Hall Culvert Replacement.** The City of Greenfield is proposing to replace the culvert crossing for Dance Hall Creek at Town Hall Drive. The culvert replacements will be of similar size but the material will be changed from CMP to Reinforced Concrete. The culvert will be lengthened slightly resulting in a slightly lower slope which will help to diminish velocity increases due to the decreased culvert roughness. This project was reviewed for Rules D and E.
15. **2021-006 Spurzem Lake Boat Launch.** Three Rivers Park District is proposing to complete ADA updates to the Spurzem Lake Boat Launch. The project is going to replace existing aggregate surfacing with concrete that meets ADA slopes for accessibility. The location of the boat launch would be within the 100-year flood plain. Due to that location, it was requested that no not import of fill or material would occur. This project was reviewed for Rules E and F.
16. **2021-007 6780 Greenfield Road.** Abigail Coral is proposing the construction of a residential dwelling, driveway, and septic site. A review for this property was requested by the City of Greenfield to ensure compliance with watershed rules. The project will disturb less than 1 acre of land. This project was reviewed for Rules E.

Questions have arisen regarding Watershed Water Appropriations Permits, and the impact upon these permits given the drought conditions. On a local level each water appropriations permit is required to have a condition upon which appropriation from the surface water is to halt. The condition used is typically an elevation for a basin, or a flow rate for a stream. Once this condition is met appropriation must halt.

There is also DNR guidance for impacts on a major watershed basis. Most if not all of the Pioneer-Sarah Watershed is located within the Crow Wing River watershed. When the river flow for the gauge in question falls below the Q90 rate for 120 hours, all appropriations permits within that watershed are effected and all consumptive use shall be halted. Consumptive use is defined as any use that does not return 100% of the water used to the watershed. Examples of consumptive use are, irrigation, or power generation that utilizes cooling towers.

As of writing this memo the flow in the Crow Wing River at Rockford is 65 cubic feet per second (CFS). Watershed wide appropriations would be halted when the river flow is below 40 CFS.

We currently do not have any watershed rules that cover watershed water appropriations permits. It would be difficult to track all of the minor appropriations permits and verify water elevations and local stream flow to ensure permits are followed. The amount of water that is consumed for residential irrigation purposes is likely low and the overall impact is likely minimal. Relying on the Crow Wing River gauge would allow for an easy gauge for when water permit use should be suspended.

DATE: October 12, 2021

TO: Pioneer-Sarah Creek Watershed Management Commission

FROM: Paul Stewart and Kris Guentzel; Hennepin County Department of Environment and Energy

RE: September Commission Project, Program, and Education Updates

South Fork Crow One Watershed One Plan

Hennepin County and PSCWMC have been asked to participate in the [South Fork Crow One Watershed One Plan](#) planning effort, which recently received funding from the Board of Water and Soil Resources. This is a 1-2 year process that will develop a comprehensive watershed management plan for all areas draining to the South Fork of the Crow River at its confluence with the North Fork of the Crow River at Rockford. This area fully contains PSCWMC jurisdiction, along with parts of eight counties including Carver, Hennepin, Kandiyohi, McLeod, Meeker, Renville, Sibley, and Wright.

PSCWMC and Hennepin County have tentatively proposed participating at the staff level only, and not as a voting member subject to limitations of the final plan. This choice was made largely because PSCWMC is within the 7-County metro area and eligible for Metro One Watershed One Plan funds through completion of the Commission's recent fourth generation watershed plan. Staff (Kris Guentzel) will continue to provide the Commission with updates on the planning process.

Subwatershed Assessments

Dance Hall Creek Subwatershed Assessment Refinement (PS)

Update: Final comments for plan have been compiled and meeting for plan will take place next week.

Previous: A draft plan was presented to Hennepin County and supporting staff for comment. Some sub meeting will take place in the next few weeks to focus in on detail of the draft and refine the outcome. Field work was completed by Stantec last month. Hennepin County has been meeting with Stantec and the City of Greenfield to answer questions regarding document drafting. We are on track to have the first draft to the technical advisors panel for review. Landowner review meetings will be scheduled for the end of August into September with Hennepin County, City of Greenfield and Stantec. Feedback will be gathered and any change to the draft will be considered. All landowners in the study area have been accommodating to meeting and field work thus far. We look forward to sharing the draft with all involved Hennepin County Staff along with Greenfield City Staff met with all landowners in the Dance Hall Creek Subwatershed Assessment Refinement the last weeks in June. We were able to present the project goals

and gather baseline information. Main 3 takeaways are: open space and natural resources are highly valued, desire to improve the natural and built environment for the betterment of water and soil and willingness to be involved with the process. All the collected information was reported back to Stantec and will be incorporated in the results. There is a large range of tenure going back 125 years which is valuable to stitching together land use changes.

- Technical advisor meeting will happen next week where GIS work will be presented.
- Stantec will be coordinating some meeting for field verification in the next month to look at specific features and areas.
- Project is still on track for a late October completion.

Hennepin County staff are leading a project in partnership with the watershed and City of Greenfield to update the Dance Hall Creek Subwatershed Assessment to accommodate a change in future land use from agricultural to rural residential on developing and soon-to-be-developed properties north of Lake Sarah in the Dance Hall Creek Subwatershed. In addition to the consultants' scope of work, HCEE staff are also working on an outreach and engagement plan for the landowners in the study area.

Spurzem Creek Subwatershed Assessment (KG/PS)

Update: County staff have completed the ACPF model and have begun urban and rural modeling work using WinSLAMM and PTMApp, respectively. Over the coming weeks modeling will be completed and report drafting will begin. The deadline for report completion has been extended to January 31, 2022.

Previous: This subwatershed assessment will identify cost-effective conservation practices east of Lake Independence for areas draining into Spurzem Creek (Cities of Corcoran, Loretto, and Medina). The county Completed two rounds of field work in late 2020 and early 2021 to determine common farming practices in the area and to identify conservation practice locations. Staff are also utilizing modeling technologies to identify and assess the benefit of conservation work.

Lake Rebecca Subwatershed Assessment (KG/PS)

Update: The RFP closed on September 23rd. Three proposals were submitted which met RFP requirements. These were submitted by Emmons & Olivier Resources, Inc., HZ United, LLC, and Young Environmental Consulting Group, LLC. An evaluation team made up of Commission, TRPD, and Hennepin County staff met on September 7th to review those proposals. Clarifying questions were submitted back to proposers and the evaluation team met again on September 13th to choose Emmons & Olivier Resources, Inc as the consultant for this work. Their recommendation has been included as part of a request for Commission action in these packet materials.

Previous: This subwatershed assessment will identify cost-effective conservation practices in areas draining to Lake Rebecca in the Cities of Independence and Greenfield. An original RFP was distributed in early 2021 that considered groundwater monitoring and a habitat management plan but has since been re-written and re-posted due to budget limitations. An RFP was posted to 19 small business enterprise (SBE) consultants, specializing in Water Resource services, on August 31st.

Projects & Outreach

Buffer Inspections

Buffer inspection have been completed and filed with the State.

Lake Independence/Remaining Baker Park Ravine CWF Funds

a. 2772 Becker Road, Independence (PS)

Update: Contractor has been selected and State Cost Share contracts have been issued. Work will start this week and Landowner will be working with Hennepin County for in-kind match. Operation and maintenance is being finalized.

Previous: Work is out for bid and will be reviewed over the next weeks. Contracting process has started. Landowner meeting regarding final design and alignment has been completed and both have accepted the plan and alignment. Hennepin County will be working with landowners in the next few weeks to get contractor bids on the project. The City of Independence is looking into the culvert under Becker Road and will provide some direction on the condition and any potential work. Hennepin County is working on an O&M draft to provide the City of Independence and possibilities of a shared O&M. Landowner has asked to reevaluate the cost share percentage once the contractor bids come in.

Waiting for the city staff to provide comment on O&M and culvert under Becker Road. Landowner meeting will be scheduled this month for design final approval and start the contracting process. Landowners are concerned about their capability to unplug the pipe if it were to become blocked. They have reached out to the city for supporting in the O&M. And also asked for the commission to encourage a mutual O&M with the city.

b. 2000 Block Independence Road, Independence (KG)

Update: Engineer signed off on wetland embankment design. Next steps will be to begin contracting with landowner and the wetland permitting process.

Previous: Started pre-construction on an agriculture drained wetland restoration in partnership with Minnesota Land Trust following the closing of a conservation easement on this property over the winter. Once restoration is complete the .75 acre wetland will filter approximately 9 acres of agriculture grass/hay field. Additional habitat restoration and enhancement will occur over the next several years on these 4 acres of maple/basswood forest and grassland adjacent to Pioneer Creek at the outlet of Lake Independence.

c. Maple St, Independence (recently purchased, undeveloped property on Lake Independence)

Update: NRCS engineer declined to work on this project citing lack of confidence that the shoreline could be stabilized. DNR expressed interest in shoreline remaining as-is as it provides fish habitat. Given uncertainty around appropriate engineering solution to achieve conservation benefit, we won't be pursuing this project.

Previous: Working with NRCS and DNR still ongoing to find solution and better ensure success during permitting. Design will require significant amount of rock riprap to address existing erosion and protect against ice heaving. Significant evidence of sediment erosion (primarily by waves) exists along shore.

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

Update: NRCS wetland delineation has been completed. Hennepin County and NRCS oversaw ag drainage repair that were completed last month. Soil sampling is completed as part of pasture management. Main drain line running to TRPD has been pot-holed at north property line. It has been confirmed that there is sediment blockages within 300 ft of the hold. Horsemen are requesting help for next steps to restore drainage.

Previous: Drain tile repair will start soon. Larger drainage project will be held until we start getting hydrological data back from the Lake Rebecca RFP/Study. Repair to the larger pipe will still be evaluated for this fall but no improves will take place. Drain tile repair will start soon. Larger drainage project will be held until we start getting hydrological data back from the Lake Rebecca RFP/Study. Repair to the larger pipe will still be evaluated for this fall but no improves will take place. Zuhrah, NRCS and Hennepin County met on sight to review grazing management plan and look at the wetland. A grazing plan will include new fencing, soil testing, seeding, water access and rotation chedule. Zuhrah is working directly with NRCS on wetland determinations. Hennepin County is providing technical support on drain tile repairs. Landowner looking for contractors to start some smaller repairs. Surveying for smaller BMP projects will start this month. Work to restore drainage continues. Paul recently met with adjacent landowners to discuss drainage issues and opportunities for pipe repair. Landowner needed time to look through old records and work with FSA on agricultural land impact. We will be continuing the conversation with all landowners.

Other Cost Share BMP Projects in Progress

a. 4635 Lake Sarah Road, Independence (KG)

Update: Rock Crossing was completed at the end of May. Final inspections in mid-summer discovered aspects of the project not installed according to plan. County staff are working with the landowner and design engineer to determine how to best address these issues.

Previous: This project will stabilize erosion at the crossing of an intermittent stream at a location that was damaged during habitat restoration work on this property in 2019. The proposed rock crossing will prevent an actively eroding area from migrating upstream, thereby delivering additional sediment and nutrients into the wetland north of the property. This project will benefit the water quality entering Lake Rebecca.

b. 1215 Copeland Road, Independence: (PS)

Update: Project is at engineer's office for preliminary design.

Previous: Survey is complete, and data sent in to engineering for pre-construction plans and estimate. Outreach work will continue into 2021 for upstream work. NRCS will be partnering with the landowner LO and County to do a BMP analysis for the entire 63-acre parcel.

Landowner Outreach Associated with Dance Hall Creek Study

New: See above Dance Hall Creek Subwatershed Assessment Refinement (KG/PS)

Landowner Outreach Associated with Lake Rebecca Study

New: County staff drafting outreach letters to landowners to introduce them to the assessment and project work.

Landowner Outreach General

New: Hennepin County Environment and Energy is exploring programs that could help interested farmers and rural landowners preserve their land and land use. Opportunities being considered include rural and agricultural easements and protection of Prime Farmland, managing local flooding, stewardship planning for soil and water quality benefits, building better partnership and connections with farming resource organizations, and improving community connections to local farmers.

The county is seeking input from farmers to help us develop effective programs that reflect the needs and goals of the community, your legacy, and your future.

A mailer was sent out last week to over 300 agricultural properties in Western Hennepin County. See Flyer attached below.

New: MN Buffer Law inspections will start at the end of August and run through September. Properties were selected at random for an in-field inspection. Letters were sent late last month and are taking a Landowner inclusive approach to be more transparent about the inspection. We are using these interactions as opportunities to learn about other issues regarding soil and water that Hennepin County or our partners can address.

Evaluating and Assessing Lakeshore Homeowner Needs and Programming

a. LICA Lakeshore Restoration Inquiries (KG/PS)

Update: Our lakeshore engineer expects to begin design work later this month.

Previous: Ellen Sones has been reaching out to landowners and has engaged and met with four landowners so far. Each has experienced some level of erosion, either from one or a combination of a lack of vegetation establishment, erosion from wave action, and ice heaving. County staff are engaging BWSR to see if we could utilize remaining watershed-based implementation funds from the previous biennium, which was allocated to a project that wasn't installed. If we are able to utilize those funds, installation must occur in 2021. We have funding to move forward with one of these projects this year.

Hennepin County staff provided LICA and its members with a webinar on lakeshore restorations during late Fall 2020. Since that time, LICA has compiled a list of landowners interested in pursuing restoration on their lakeshores. Pat Wulff recently provided those names and addresses to County staff. The County is working internally to identify staff and resources to move forward with reviewing those sites and providing those homeowners with next steps.

b. 3045 Lakeshore Ave Medina

New: Landowner requested evaluation for shoreline stabilization.

New Inquiries and Other Opportunities

a. 2015 Budd Street, Independence: (PS)

Update: Landowner would like Hennepin County, City of Maple Plain, City of Independence and Pioneer Sarah Watershed to consider the drainage area for a 2022 project(s).

Previous: Hennepin County met with Maple Plain staff to info share about the current state for the grass waterway and ravine. Working towards another meeting in fall to start looking at drainage and stormwater data and see if there are opportunities to help regulate flow.

Hennepin County has reached out the City staff in Maple Plain to schedule time to go over this project now that storm drain work is complete at the park. Given other priorities and staff capacity constraints, this project opportunity will be on hold until after the 2021 field season. In order to proceed, staff need to understand recent stormwater improvements in the City of Maple Plain.

Landowner reported that water levels and velocity in the past year have caused out-of-bank erosion in rock-armored areas and gulying in grass waterway. Armoring and grassed waterway were installed as a cost share project in 2004. Site visit completed on May 1, 2020 revealed significant

channel erosion in the grassed waterway. Volume and debris coming down the gully cause backups at spillway. Flow changes course during heavy volume events, flowing overland through a farm field. Severe cutting in the grass waterway has resulted in the flow path changing course – now bypasses sediment pond. The water velocity has also washed out the rock crossing. See photos of unnamed gully and drainage boundary in May 2020 Staff Report.

This gully is the primary drainage between Maple Plain/Northside Park and DNR Public Water Wetland 393W and Pioneer Creek. Landowner has expressed concern about drainage work that

b. Unassigned address, Marsh Land Properties LLC PID 2411824320015: (PS)

Update. No Update

Previous: Hennepin County met with Maple Plain to share information on the OM concern. Maple Plain will look into this. has reached out to city staff in Maple Plain to schedule time to go over operation and maintenance concerns and planning for 2022.

Hennepin County has reached out to city staff in Maple Plain to schedule time to go over operation and maintenance concerns and planning for 2022. Will work with Maple Plain City Staff early 2021. Landowner inquired about Proto Lab parking lot addition storm drainage using stormwater pond on property, who holds the OM and how to get help for erosion. See map erosion areas highlighted in red in May Staff Report

c. 5590 Lake Sarah Height Dr, Independence:

No Update.

Previous: JB Gully, HR67 & HR68 page 69 Lake Sarah and Lake Independence Stormwater Retrofit Analysis. Site visit on May 1, 2020 to look at road wash-out and unnamed stream (JB gully). Identified that field crossing was cleaned at HR 67 and 68 and opened up flow. Due to site constraints of the unnamed stream restoration, will need more analysis. HR67 and HR68 show potential for restoration and flow control structure.