LOWER MINNESOTA RIVER
WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting
Wednesday, September 21, 2022

Agenda Item
Item 6. I. LMRWD Projects

Prepared By
Linda Loomis, Administrator

Summary

i. Area #3

The LMRWD plans to move forward with design for stabilization of Area #3. The LMRWD will be working with Inter-Fluve and Barr Engineering on the next phase of this project. On August 19, 2022, the LMRWD held a meeting with Young Environmental Consulting Group, Barr Engineering, and Inter-Fluve. A summary of that meeting is attached for the Board's information. The group discussed what additional information is needed to begin work on the design and set a schedule for completion of tasks. Inter-Fluve has provided an amendment to the previous contract with the LMRWD. Barr Engineering has provided a Work Order for the work to be performed.

Attachments
Eden Prairie kick-off meeting draft summary
Professional Services Agreement Amendment #1 between LMRWD and Inter-Fluve
Work Order Form for Consultant Agreement Work Order 2022-02

Recommended Action
Motion to authorize execution of Professional Services Agreement #1 and Work Order 2022-02

ii. MN River Corridor Project

On September 7, 2022, the LMRWD hosted an open house to collect final input into the MN River Corridor Management Project and a river paddle. About 20 LMRWD partners attended. The next step will be to develop a strategy using the input received through the partner engagement process that the LMRWD used. I have attached the Work Plan developed for this project. We are at Objective 4.

Attachments
Minnesota River Corridor Plan Work Plan dated August 3, 2020

Recommended Action
No action recommended

iii. Spring Creek

On August 22, 2022, letters were sent to listed owners of the properties with erosion issues attributed to Spring Creek. We have not received any response yet. We are also waiting for the Hartleys (property owner that attended the neighborhood meeting) to let the LMRWD know how much they would be willing to contribute to stabilizing their property.

Attachments
Sample letter sent to property owners

Recommended Action
No action recommende

Draft Summary

PROJECT NAME: Eden Prairie Area 3 Kickoff Meeting

DATE: August 19, 2022

TIME: Noon–12:36 p.m.

ATTENDEES

- Barr Engineering (Barr): Karen Chandler, Brent Theroux
- Inter-Fluve: Maren Hancock, Jonathon Kusa
- Lower Minnesota River Watershed District (LMRWD): Linda Loomis
- Young Environmental: Katy Thompson, Della Schall Young

SUMMARY

1. ~~Introductions~~
2. Brief project background and components

   Katy provided a brief overview of the recent project history:

   - Barr recommended soil borings on the bluff to confirm assumptions and validate the results from the January 31, 2022, *Preliminary Stability Analysis Results* memo.
   - Inter-Fluve developed conceptual toe designs, but its recommendation was to remove the City of Eden Prairie stormwater pond and armoring to allow the river meander to migrate away from Area 3 before the sediment delta washes out. A hold was put on the project design while the LMRWD worked with its legislative liaison to obtain funding from the Minnesota Legislature based on the rough construction costs Inter-Fluve provided in February 2022.
   - The LMRWD board approved an updated work plan for Area 3, inclusive of the project scopes from Barr and Inter-Fluve, on April 15, 2022.
   - Young Environmental will provide project management and permitting support.
   - Since the work plan was approved, the City of Eden Prairie received approval from the MPCA in July 2022 to decommission the stormwater pond.
   - The LMRWD is now ready to move ahead with collecting field data and developing the 90 percent plans!
3. Schedule

   Katy asked if there was anything within Barr's or Inter-Fluve's workplans that is time-sensitive or dependent on others to complete? Also, is there an ideal time to complete the field activities?

   - Contracts
     - Barr will need to create a task order from the February 11, 2022, estimate to execute through the LMRWD's engineering pool.

    - Inter-Fluve will provide a draft amendment to its previous contract with the LMRWD.
- Supply chain disruptions
    - Brent noted the soil borings may be affected by supply chain issues for the instrumentation and drilling equipment, but because the borings are validating Barr's assessment, the delays should not affect Inter-Fluve's design.
    - Brent will schedule the borings as soon as possible but expects a minimum four-week lead time for the drillers. Frozen ground is acceptable, but snow and ice on the slope could delay the borings further.
    - Brent will put potential soil borings on a map and give it to Katy, who will coordinate with the city and residences to get access.
- Staff schedules
    - Maren will be on maternity leave starting January 2023 (congrats!); Jonathon will take over during that time but is expecting a six-month effort to get through 90 percent design.
    - The survey would ideally be completed after leaf off (or in the first half of October).
    - Della and Linda will coordinate with the legislative liaison to determine what the hard deadline is for the 90 percent package; however, for now, Della wants to target March 2023 for the final 90 percent package. Della and Linda will provide more guidance in the next couple weeks.
    - Bathymetry work can be collected anytime, provided river conditions are adequate.
    - Inter-Fluve will need property access; Katy and Maren will coordinate.
- Overall project schedule
    - Katy will provide a draft schedule for comment based on the provided scopes.

ACTION ITEMS

No.	Item	Responsible Party	Status
1	Provide LMRWD with updated task order or amended contracts	Barr and Inter-Fluve	In progress
2	Soil boring map	Barr	
3	Deadline for 90 percent package	Della and Linda	
4	Draft schedule	Katy	Complete—see attached

LOWER MINNESOTA RIVER
WATERSHED DISTRICT

Area 3 Comprehensive Design Development - Draft Schedule
August 31, 2022

		Start Date	End Date	Aug-22				Sep-22				Oct-22				Nov-22					Dec-22				Jan-23				Feb-23				Mar-23				Apr-23				May-23				
Obj. 1	Project Management																																												
1-1	Project Coordination Meetings																																												
1-1.1	Kickoff mtg	8/19/22	8/19/22		X																																							
1-1.2	Monthly coordination mtg	9/1/22	5/1/23						X					X								X					X				X					X								
1-2	Board Updates	10/1/22	5/31/23													X					X								X								X							X	
Obj. 2	Data Collection, Conceptual Design, and Coordination																																												
2-1	Piezometers and soil borings	9/30/22	12/29/22							X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X																				
2-2	Topographic survey	10/1/22	10/30/22								X	X	X	X	X	X																													
2-3	On-site stormwater pond conceptual design mtg	10/1/22	10/15/22								X	X	X																																
2-4	Conceptual design	10/16/22	10/30/22										X	X	X	X	X	X																										
2-5	Field data results meeting	10/31/22	11/14/22													X	X	X																										
Obj. 3	Prelim Design (60%)																																												
3-1	60% design development (bank design)	10/31/22	11/30/22											X	X	X	X	X	X	X	X																							
3-2	HEC-RAS 1D model for no-rise permit	12/1/22	12/22/22														X	X	X	X	X	X	X																					
3-3	Outfall design	10/31/22	11/30/22											X	X	X	X	X	X	X	X																							
3-4	60% design review	12/23/22	1/13/23																		X	X	X	X	X	X																		
3-5	60% design review mtg	1/14/23	1/28/23																						X	X	X																		
Obj. 4	Permitting																																												
4-1	Pre-permit regulatory agency meetings	1/14/23	2/13/23																						X	X	X	X	X	X															
4-2	Speciality permitting (Phase 1)	2/14/23	3/16/23																										X	X	X	X	X	X											
4-3	Permit applications	3/17/23	5/16/23																														X	X	X	X	X	X	X	X	X	X	X	X	X
Obj. 5	Final Design (90%)																																											
5-1	90% design development	2/21/23	4/22/23																								X	X	X	X	X	X	X	X	X	X	X	X							
5-2	90% design review	3/21/23	4/4/23																														X	X	X	X									
5-3	90% design review meeting	4/5/23	4/19/23																																		X	X	X						

X	Ideal dates
X	Tentative or float

Professional Services Agreement Amendment #1

Effective Date of Amendment: Upon the date of the last signature below

Original Agreement made as of: December 16, 2021

Between Client: The Lower Minnesota River Watershed District
112 E. 5th St. #102
Chaska, Minnesota 55318

And IFI: Inter-Fluve, Inc.
501 Portway Avenue, Suite 101
Hood River, Oregon 97031

For the following Project: Area 3 Bluff Concept Design and Rendering.

Purpose of Amendment: To cap services and compensation under the Area 3 Bluff Concept Design and Rendering project at what has been completed, add additional services as detailed in Attachment A, Area 3 Project Design for Launchable Toe and Stormwater Pond Removal with related compensation and extend the term of the Professional Services Agreement.

Changes to Scope of Services Procedure: Consultant is limited to services already completed for the Area 3 Bluff Concept Design and Rendering and will perform the services in Attachment A, Area 3 Project Design for Launchable Toe and Stormwater Pond Removal.

Billing and Payment: Compensation for the Area 3 Bluff Concept Design and Rendering is limited to what was already paid, ($7,082.25). The remaining $22,418.75 will be supplemented with additional compensation of $79,953.25 for new services provided detailed in Attachment A, Area 3 Project Design for Launchable Toe and Stormwater Pond Removal. The compensation for this work will equal $102,372.00.

Term: The term of this Professional Services Agreement is updated to Attachment A, Area 3 Project Design for Launchable Toe and Stormwater Pond Removal.

The Parties hereto agree to this Professional Services Agreement Amendment and except as expressly modified above, all other terms and conditions of the Professional Services Agreement shall remain in full force and effect.

Linda Loomis 9/6/2022

Client – The Lower Minnesota River Watershed District Date

IFI - Inter-Fluve, Inc. Date

Attachment A
Area 3 Project
Design for Launchable Toe and Stormwater Pond Removal

This document serves as a project work plan detailing Inter-Fluve's scope of services, assumptions, deliverables, and schedule for 90% design for the Area 3 Minnesota Riverbank Stabilization Project involving Stormwater Pond Removal and Launchable Toe.

Project Scope of Services

Task 1: Project Management

This task includes monthly project invoicing, monthly 30-minute project update phone calls with the LMRWD Project Manager, and the following virtual meetings:

- Kickoff meeting with LMRWD and Young Environmental
- Stormwater Pond Removal Conceptual Design Review Meeting
- Design Review Meeting following 60% Design
- Design Review Meeting following 90% Design

Deliverables:

- Meeting agenda (provided one week in advance) and meeting minutes
- Monthly invoices

Assumptions:

- All meetings will be held virtually
- Geotechnical review of the slopes is being completed by Barr Engineering. It is assumed that Barr's findings will not change their current recommendations that no action is necessary relative to geotechnical slope stability. Should Barr's recommendations change, the scope for this project will need to be updated and coordinated with any necessary slope stability design.

Task 2: Data Collection, Conceptual Design for Stormwater Pond Removal, and Stormwater Outlet Coordination

This task includes collection of onsite data, conceptual design for the stormwater pond removal, and coordination with Young Environmental regarding the design of the stormwater outlet. Topographic survey data in the vicinity of the City stormwater pond and downstream area will be collected to support design development and updates to the hydraulic model. Limited outfall structure information will be collected (e.g., invert elevation, pipe diameter, location, etc.) Bathymetric data will be collected in front of the City Stormwater pond and throughout the area surveyed in 2021 to support design and to evaluate changing subsurface conditions since the previous survey. Additionally, new drone imagery will be collected of the project site.

This task includes an onsite meeting with Young Environmental to discuss the concept design for stormwater pond removal and stormwater outlet design. Following the onsite meeting, a draft conceptual sketch (planimetric rendering) for stormwater pond removal design will be prepared and discussed at the Stormwater Pond Removal Conceptual

Design Review Meeting. Following the meeting, a final conceptual design sketch will be developed for use in 60% design. Inter-Fluve will coordinate with Young Environmental regarding the stormwater outlet design throughout this task.

Deliverables:

- Survey data (csv format)
- Aerial imagery
- Conceptual design sketch for stormwater pond removal (DRAFT and FINAL)

Assumptions:

- Topographic survey will be conducted during leaf off in ice- and snow-free conditions. Bathymetric survey will be conducted during low-flow ice-free conditions.
- The survey will consist of a topographic and bathymetric survey within the limits of the proposed project area using an RTK GPS and hydrone-mounted RTK GPS.
- The LMRWD will coordinate and arrange access to all properties required for completion of the survey.
- This task does not include redesign work.
- Young Environmental will complete the design for the new stormwater pond outlet.

Task 3: Preliminary Design (60%)

This task includes design and analysis to support the development of the 60% design deliverables, and will be based on the final conceptual design sketch for the stormwater pond removal and the launchable rock toe (from the previous conceptual design efforts.) Young Environmental will complete the design for the new stormwater pond outlet structure.

This task includes updating of the previously developed 2-D HEC-RAS hydraulic modeling of existing conditions with new topographic and bathymetric data, and development of a 2-D proposed conditions hydraulic model. It also includes development of design plans (estimated at approximately 12 sheets), a technical design memorandum, EOPCC (Engineer's Opinion of Probable Construction Costs) and an updated permit matrix with estimated timelines and submittal needs. The team will develop a comment log to track comments on the 60% design plans.

Deliverables:

- 60% design plans
    - Estimated at 12 sheets including: title sheet, general layout (existing utilities and removals), grading plan, tabulations, staging plans, stormwater pollution prevention plan, erosion and sediment control plan, proposed conditions plan sheets, proposed conditions cross-sections, and typical details.
- Technical Design Memorandum
    - The technical design memorandum will reference previous conceptual design and data collection efforts, and will summarize newly collected onsite data, hydraulic model setup and analysis, proposed design elements, and design calculations and assumptions. This document will serve as a record of engineering due diligence for the project.

- Hydraulic Modeling
    - The 2-D HEC-RAS model of existing conditions will be updated with newly collected data and a proposed conditions model will be built. Model results will inform proposed bank stabilization design and configuration as well as material sizing.
- Engineer's Opinion of Probable Construction Cost (EOPCC)
    - Approximate opinion of construction costs for mobilization, access, site preparation and cleanup, and construction time and materials will be provided. This EOPCC will be developed using recent bid prices from recent Inter-Fluve projects within the region as well as publicly available bids for similar projects within the region.
- Permit Matrix document
    - Inter-Fluve will update the previously developed matrix document to identify the necessary permits, approvals, reviews, submittal needs, and timeline.
- Comment log
    - Comment log will be developed to track stakeholder comments received on the 60% deliverable for revisions at the 90% design stage.

Assumptions:

- LMRWD team will consolidate comments from staff and stakeholders to submit to Inter-Fluve
- Inter-Fluve will develop supporting documentation and calculations necessary for permitting applications, which will be developed and submitted by LMRWD.
- This scope does not include development of a 1-D hydraulic model for supporting permit applications.
- Young Environmental will be developing and stamping the stormwater outlet design plan sheets to be integrated via PDF into the Inter-Fluve plans.

Task 4: Final Design (90%)

This task includes the development of a 90% construction document set (estimated at approximately 20 sheets), an updated EOPCC, specifications, and an updated technical memorandum to capture the final design decisions and analysis.

Deliverables:

- 90% design plans
- Updated EOPCC
- Specifications (Division 1 and Division 2+ Technical Specification Sections)
- Updated technical design memorandum
- Updates to the comment log (to be addressed in a future design phase)
- Updated permit submittal matrix with estimated approval timelines based on feedback from LMRWD's conversations with permitting staff.

Assumptions:

- Specifications will be developed in CSI format. LMRWD will provide information to support development of Division 0 and Division 1 specification sections, as appropriate. .
- Young Environmental will be developing the stormwater outlet design plans.
- Young Environmental will be responsible for communication with permitting staff within each agency.

Project Schedule

We propose a 6 month schedule for this work with Tasks 2, 3, and 4 each taking approximately 2 months. The final project schedule will be agreed upon prior to finalizing the contract and will consider review time necessary for the LMRWD.

Project Budget

Task	Fee
1: Project Management	$13,508
2: Data Collection, Conceptual Design, and Coordination	$14,468
3: Preliminary Design (60%)	$38, 444
4: Final Design (90%)	$35,952
Total:	$102, 372

WORK ORDER FORM FOR
CONSULTANT AGREEMENT
WORK ORDER 2022-02

This Work Order is entered into and authorized this 13th day of September 2022, by and between **Lower Minnesota River Watershed District** (hereinafter called LMRWD) and **Barr Engineering Co.** (hereinafter called Barr).

The parties agree that the Barr shall perform the following Services in accordance with the terms of the Agreement dated July 20, 2022:

1. Scope of Services for the Area 3 Design Development Project:

Work Order 2022-02 is for technical services related to LMRWD's Minnesota River Area 3: 2022 Comprehensive Design Development Project (hereinafter called Area 3 Design Development Project) in Eden Prairie. The tasks below are based on the LMRWD's April 15, 2022 workplan for the Area 3 Design Development Project. The tasks include close coordination and collaboration with LMRWD, Young Environmental, and Inter-Fluve staff.

Objective 1. Project Management

This objective consists of assisting LMRWD staff in managing the project scope, submittals, schedule, and budget by providing periodic communications to LMRWD staff via email and phone and attending project coordination meetings.

Task 1-1: Project Coordination Meetings: Barr will attend the following planned project coordination meetings, except as indicated below, to maintain communication with stakeholders:

- Kickoff meeting with LMRWD, Inter-Fluve, and Barr Engineering
- Field Data Results meeting with LMRWD, Inter-Fluve, and Barr Engineering
- Stormwater Pond Removal Conceptual Design Review meeting (Barr will not attend)
- Design Review meeting, following 60 percent design
- Regulatory Agencies Review meeting, following 60 percent design (Barr will not attend)
- Design Review Meeting, following 90 percent design
- Monthly coordination meetings

We assume all meetings will be virtual.

Task 1-2: *Board updates*: This task will be performed by LMRWD staff; we assume no Barr assistance is needed for this task.

Schedule: through duration of project (September 2022 – May 2023)

Deliverables: attendance at four (4) one-hour milestone meetings, plus up to eight (8) 30-minute monthly coordination meetings.

Cost estimate: $4,170 (see attached table for staff hours, billing rates and costs for each task; actual hours and staff may vary slightly)

Objective 2. Field Data Collection

This objective consists of collecting new data to investigate soil conditions and groundwater levels in the upper slope to confirm or update previous stability calculations.

Task 2-1: Piezometers and Soil Borings: As part of the 2021 slope stability analysis, Barr recommended confirming the soil types and groundwater elevations at Area 3. The analysis relied on one soil boring that was nearby the failure site. If the actual conditions at Area 3 are different than assumed, this could

significantly change Barr's slope recommendations. Barr will conduct two soil borings along the slope upslope of the existing borings. One boring location is proposed to be at or near the south property boundary at 12613 Riverview Road and the other boring location is proposed approximately halfway between the first boring the edge of the bluff. A vibrating wire piezometer will be installed in each boring. Data from the soil borings and piezometers will be used to confirm or update the 2021 slope stability analysis assumptions. Barr will contract with a drilling company to perform the soil borings. Barr will purchase and install the piezometers and data-logging equipment. Barr will contract with a soil testing laboratory to perform lab testing on collected soil samples. Barr will prepare final boring logs of the two borings.

We will attend a site visit with LMRWD staff, drilling contractor, client, and property owners to coordinate drilling access and restoration. Prior to the site visit, Barr will identify proposed boring locations on a location diagram and will indicate potential access routes to the boring locations. We assume LMRWD staff will coordinate with the property owners to set up meeting and obtain permission for the driller, Barr staff, and LMRWD staff to enter their properties for the site visit. We assume LMRWD staff will manage and coordinate obtaining all right-of-entry permissions necessary to facilitate safe access to proposed soil boring locations for driller and Barr staff.

We assume restoration of the drilling sites will consist of the driller placing drilling spoils back into the borehole (up to the amount allowed by the MN Department of Health) and spreading the remaining spoils onsite. If special or specific treatment is required by a property owner for the spoils, or if additional restoration is required due to rutting, etc., that could add to the driller's cost. Such additional costs are not included in our cost estimate for the subcontractor.

Task 2-2: Topographic Survey (Inter-Fluve task only, no Barr involvement): This task will be performed by Inter-Fluve; we assume no Barr assistance is needed for this task.

Schedule: Task 2-1: September 2022 – January 2023, assuming driller's schedule and access conditions allow for completing the soil borings before freezing conditions prevail.

Deliverables: Task 2-1 (Barr task): Site visit with LMRWD staff, drilling contractor, client, and property owners to coordinate drilling access; perform soil borings, install piezometers, and prepare soil borings logs and report.

Cost estimate: $28,745 (see attached table for staff hours, billing rates and costs for each task; actual hours and staff may vary slightly)

Objective 3. Sixty Percent Design

Task 3-1: 60 percent design development (Inter-Fluve and Young Environmental task only, no Barr involvement): This task will be performed by Inter-Fluve and Young Environmental; we assume no Barr assistance is needed for this task.

Task 3-2: Hydraulic Modeling (Inter-Fluve and Young Environmental task only, no Barr involvement): This task will be performed by Inter-Fluve and Young Environmental; we assume no Barr assistance is needed for this task.

Task 3-2: 60 percent design package review: Barr will review Inter-Fluve's 60 percent design package (as submitted to LMRWD staff), including construction plans, the design memorandum, and the permitting matrix. Barr will provide written review comments to assess whether the design package is consistent with Barr's slope stability analysis. LMRWD staff will review the package and compile comments in the comment resolution log for Inter-Fluve.

Schedule: Task 3-2: December 2022 – January 2023)

Deliverables: Written comments on 60 percent design package transmitted via email.

Cost estimate: $5,510 (see attached table for staff hours, billing rates and costs for each task; actual hours and staff may vary slightly)

Objective 4. Permitting

Task 4-1: *Pre-permit meetings (LMRWD staff task only, no Barr involvement):* This task will be performed by LMRWD staff; we assume no Barr assistance is needed for this task.

Task 4-2: *Specialty permitting LMRWD staff task only, no Barr involvement):* This task will be performed by LMRWD staff; we assume no Barr assistance is needed for this task.

Task 4-3: *Permit applications LMRWD and Inter-Fluve staff task only, no Barr involvement):* This task will be performed by LMRWD and Inter-Fluve staff; we assume no Barr assistance is needed for this task.

Schedule: January – May 2023 (no Barr involvement)

Deliverables: Not applicable

Cost estimate: $0

Objective 5. 90 Percent Design Review

Task 5-1: *90 percent design development (Inter-Fluve task only, no Barr involvement):* This task will be performed by Inter-Fluve; we assume no Barr assistance is needed for this task.

Task 5-2: *90 percent design package review:* Barr will review Inter-Fluve's 90 percent design package (as submitted to LMRWD staff), including revisions to construction plans, and the design memorandum. Barr will provide written review comments to assess whether the design package is consistent with Barr's slope stability analysis. LMRWD staff will conduct a complete review of the draft technical specifications and preliminary engineer's estimate and will finish the comment resolution log for Inter-Fluve.

Schedule: Task 5-2: March – April 2023

Deliverables: Written comments on 90 percent design package transmitted via email.

Cost estimate: $5,320 (see attached table for staff hours, billing rates and costs for each task; actual hours and staff may vary slightly)

2. Compensation:

The basis of compensation for the above Services shall be the hourly rate per the Barr's rate sheet, plus expenses and subcontractor costs, subject to a not-to-exceed cap of $43,745 without further authorization.

3. Other Terms:

No additional terms.

IN WITNESS WHEREOF, the parties have made and executed this Task Order as of the day and year first above written.

Owner: Lower Minnesota River Watershed District		**CONSULTANT: Barr Engineering Co.**	
By:		By:	Karen L. Chandler
Name:	Linda Loomis	Name:	Karen Chandler
Title:	Administrator	Title:	Vice President

Project Name: Area 3 Design Development
Client Name: Lower Minnesota River Watershed District
Date: 9/6/2022
Approved by: KLC

Name (Last, First)	Chandler, Karen	Theroux, Brent	Grosser, Aaron	Hill, Erica					
Billing Rate	$ 190.00	$ 185.00	$ 215.00	$ 100.00					
Project Role	Vice President	Project Manager	Vice President	Geotechnical Engineer	**Subtotal Hours**	**Subtotal Costs**	**Expenses**	**Sub Contractors**	**Project Total**
1. Project Management									
Task 1-1: Project coordination meetings (4 one-hr meetings + monthly coordination meetings (assume 8 half-hour meetings))	8.0	10.0	0.0	8.0	26.0	$ 4,170.00	$ -	$ -	$ 4,170.00
Task 1-2: Board updates (performed by LMRWD staff)		0.0	0.0	0.0	0.0	$ -			$ -
Subtotal	8.0	10.0	0.0	8.0	26.0	$ 4,170.00	$ -	$ -	$ 4,170.00
2. Field Data Collection									
Task 2-1: Piezometer and soil boring installation	1.0	24.0	1.0	40.0	66.0	$ 8,845.00	$ 1,700.00	$ 18,200.00	$ 28,745.00
Task 2-2: Topographic survey (performed by Inter-Fluve)		0.0		0.0	0.0	$ -			$ -
Subtotal	1.0	24.0	1.0	40.0	66.0	$ 8,845.00	$ 1,700.00	$ 18,200.00	$ 28,745.00
3. Sixty Percent Design									
Task 3-1: 60 percent design development (Inter-Fluve & Young Enviromental)	0.0	0.0			0.0	$ -			$ -
Task 3-2: Hydraulic modeling (Inter-Fluve & Young Enviromental)	0.0	0.0			0.0	$ -			$ -
Task 3-3: 60 percent design package review	5.0	18.0	2.0	8.0	33.0	$ 5,510.00			$ 5,510.00
Subtotal	5.0	18.0	2.0	8.0	33.0	$ 5,510.00	$ -	$ -	$ 5,510.00
4. Permitting									
Tasks 4-1, 4-2, 4-3 (Young Environmental)	0.0	0.0			0.0	$ -			$ -
Subtotal	0.0	0.0	0.0	0.0	0.0	$ -	$ -	$ -	$ -
5. 90 Percent Design Review									
Task 5-1: 90 percent design development (Inter-Fluve)	0.0	0.0			0.0	$ -			$ -
Task 5-2: 90 percent design package review	4.0	18.0	2.0	8.0	32.0	$ 5,320.00			$ 5,320.00
Subtotal	4.0	18.0	2.0	8.0	32.0	$ 5,320.00	$ -	$ -	$ 5,320.00
Project Total	18.0	70.0	5.0	64.0	157.0	$ 23,845.00	$ 1,700.00	$ 18,200.00	$ 43,745.00

Assumptions:	Task 1-1: all meetings assumed virtual
	Task 2-1 expenses include $1,700 for piezometers and associated materials; subcontractors: $16,500 for soil boring/piezometer contractor, $1,700 for soil testing laboratory; task includes 32 hrs of drilling observation and documentation

LOWER MINNESOTA RIVER WATERSHED DISTRICT

Minnesota River Corridor (MRC) Plan

WORK PLAN—August 3, 2020

Using the Minnesota River as a focal point, this project will examine issues that face the river's complex natural system, which is a shared resource and a place where varied interests converge. The result of this project will be a multipurpose corridor plan that will serve as a guiding document for all the political jurisdictions and agencies. It will seek to create a new foundation for cooperation and strategic financial investment that can provide multiple benefits.

The plan will examine the pressures on the river from inside the watershed and will expand to consider areas upland of the watershed, given that the river is itself a complex natural system and a shared resource where varied interests such as recreation and commerce converge. The outcome will be the development of a shared vision for maximizing public benefits, including the following: (1) creating greater understanding of the Lower Minnesota River Corridor and its landscape, (2) describing a desired future for the river and discussing how change in the surrounding landscape can help attain this future, (3) suggesting a structure or framework by which the vision can be implemented, and (4) identifying shared public values that form the basis of the project.

Potential management strategies will also be identified as part of the process to improve water quality, integrate wildlife habitat and outdoor recreation, and create a framework for more sustainable economic development within the watershed. The plan will also recognize the role of private land ownership in the development of the watershed and will provide landowners with the tools and opportunities to become more involved and implement best practices.

Summary

Outcome:	Minnesota River Corridor (MRC) Plan
Project partners:	Residents and business owners of LMRWD, Minnesota Board of Water and Soil Resources (BWSR), Minnesota Department of Natural Resources (DNR), US Army Corps of Engineers (USACE), US Coast Guard, US Fish and Wildlife Service (USFWS), Friends of the Mississippi, Minnesota Valley Refuge Friends, stakeholder organizations, and other partner agencies
Timeline for completion:	September 2020 through July 2021
Total project budget:	$86,100–$100,000

Objective 1. Project Management

Task 1-1: *Project plan development and project management*. Finalize the workplan; assign project tasks; determine if additional resources are needed; set dates for deliverables; generate and maintain the project schedule and Gantt chart.

Timeline for completion: September 2020 through July 2021

Deliverables: Invoices and project updates

Estimated budget: $8,200–$9,800

Objective 2. Collect and Review Data

Task 2-1: Review and build on past efforts. Gather previous plans and studies from partners' websites, past LMRWD studies and projects, and available online data sources. Review to develop a comprehensive list of

resources that exist within or near the District that address water quality, habitat and natural resources, land use and community plans, recreational opportunities, and infrastructure or other intersecting systems.

Task 2-2: Preliminary issue identification and qualitative analysis. Using the information collected in Task 2-1, review the data to identify key concerns, shared values or goals, and projected growth within the watershed. Develop a list of the priority sites and issues as a starting point for public engagement activities.

Task 2-3: GIS mapping. Develop watershed mapping to characterize the Lower Minnesota River Corridor by water quality, habitat and natural resources, land use and community plans, recreational opportunities, and infrastructure or other intersecting systems. Maps will be developed to document the current conditions across the corridor as well as to map the needs related to the Corridor Plan goals.

Timeline for completion: September through November 2020

Deliverables: Development of data matrix and identification of key issues within the watershed from previous studies, preliminary mapping of existing watershed conditions

Estimated budget: $14,400–$17,300

Objective 3. Partnering and Public Engagement

Task 3-1: Contact potential project partners and outreach. Reach out to project partners, including municipal partners, county partners, DNR, USFWS, BWSR, landowners (business, agricultural, and residential), recreation and stewardship agencies, and other partner agencies with an introductory email and request a point of contact for those interested in participating in the MRC and technical advisory group process. These points of contact will be asked to participate in future discussions with the District to help identify major issues.

Task 3-2: Focus groups. Three information gathering sessions will be held with randomly selected residential, business, and agricultural landowners located within the watershed and with stewardship and recreation organizations. Participants will be asked to provide their insights into how they value the river, how the river has changed over time, what regulatory issues they have encountered, and what they hope the plan will accomplish. These meetings will be held virtually. Another information gathering session will be held with local watershed organizations that may also be contacted for advice about advertising for public workshops and identifying problems, particularly any lessons-learned from the COVID19 pandemic. Such organizations may include Friends of the Mississippi River and the Vermillion River Watershed District.

Task 3-3: Partner workshops. Review the proposed process and objectives with partners for their endorsement; solicit feedback and learn how their expertise and knowledge of the resource can lend itself to the project. Facilitate a virtual open house to characterize the partners' perspectives of the watershed and the key issues identified in Objective 2. Three workshops will be held virtually and are generally discussed below:

> *Workshop 1: A River Worth Protecting*
> The goal of the first workshop is to introduce attendees to the MRC Plan and identify priorities for water quality, habitat, appropriate recreation, and future growth opportunities. The workshop will be broken into regional sessions, by county.
>
> *Workshop 2: Working Together*
> The second workshop will offer participants the opportunity to review and refine the draft concepts for the full corridor plan.
>
> *Workshop 3: Putting the Plan into Action*
> The third workshop will allow the participants to refine the corridor concepts that constitute the Corridor Plan vision. Input will be sought into how the plan will be coordinated and implemented.

Task 3-4: Open house. The draft Minnesota River Corridor Plan will be released for public review and presented at an open house during the public review and comment period. The session will be unstructured to allow project

team members to answer questions and engage participants in discussion about the draft plan. A summary of the received comments will be provided and incorporated into the final document.

Task 3-5: Surveys. Develop an online survey to be incorporated to the LMRWD website to solicit feedback from residents, businesses, and those with an interest in the LMRWD. This survey will be used to determine what the public believes are the key issues facing the District.

Task 3-6: Regulation review. With the adoption of the District Rules in February 2020, we propose to set aside some time in the MRC to check in with partners on the permitting process. While the substance of the rules is not new, the regulatory process is, and there may be room to improve the implementation of the rules and permits as well as reduce costs for the District. Part of this task will include a review of the LMRWD processes compared to other metro watershed districts and state-level water regulation.

Task 3-7: Issue identification and qualitative analysis update. We will update the preliminary issue identification and qualitative analysis based on the feedback from our public outreach activities.

Timeline for completion: October 2020–June 2021

Deliverables: Agendas, facilitation, and summaries for all meetings, workshops, and open houses specified above

Estimated budget: $18,400–$25,800

Objective 4. Corridor Plan

Task 4-1: *Generate draft outline.* Generate a draft of an annotated outline for the MRC Plan, with the following goals cited from the LMRWD's 2018 Watershed Management Plan:

- *G1. Create greater understanding of the Lower Minnesota River Corridor and its landscape*
- *G2. Describe the desired future of the river and discuss how change in the surrounding landscape can help attain this future*
- *G3. Suggest a structure or framework by which the vision can be implemented*
- *G4. Identify shared public values that form the basis of the project.*

Task 4-3: Draft the Lower Minnesota River Corridor Plan. Utilize information gathered from local resources, partners, previous LMRWD projects, goals, and objectives or strategies to draft the plan. Circulate the draft among project partners for written feedback and allow for a two-week review period. A single page handout will that summarizes the draft report will also be completed for the project partner review.

Task 4-3: Draft plan for public comment and review. Incorporate project partner feedback, finalize the draft plan, and make it available for a 30-day public comment period.

Task 4-4: Final plan. After incorporating comments received during the public comment period, the final report will be updated, finalized, and presented to the board for acceptance.

Timeline for completion: December 2020–July 2021

Deliverables: A draft report for internal review, a public draft report for public comment, and a final report

Estimated budget: $45,100–$47,100

LOWER MINNESOTA RIVER
WATERSHED DISTRICT

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Secretary

Dakota
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E-mail:
info@lowermnriverwd.org

August 19, 2022

[redacted]

Re: Spring Creek Streambank Stabilization Project

Dear Ms. Thomas:

The Lower Minnesota River Watershed District (District) is interested in meeting with landowners to discuss concerns about Spring Creek shifting and washing away soil on their properties. The District met with neighbors along Spring Creek on July 27, 2022, to discuss opportunities to stabilize the creek. Unfortunately, we missed you at the neighborhood meeting. Your property has been identified as an at-risk site. We would like to find an alternate time to connect with you to discuss the status of the creek and your interest in moving forward. Please find a summary of the project's background and next steps below.

Background and Issue

In 2018, a resident along Spring Creek raised concerns to the Carver Soil and Water Conservation District (SWCD) about the creek shifting and washing away soil from their property. A site visit by the SWCD revealed that Spring Creek had moved close to a garage and driveway. If Spring Creek continues to change positions, significant damage to affected properties may occur. In response, the SWCD worked with residents to develop repairs on each property. After the SWCD finalized the solution, the resident who raised the initial concern contacted the District for cost-share funding and a review of the proposed concept plans. During the District's review of the concept plans, we performed a separate assessment of the creek's hydrology and hydraulics to better understand historical changes, anticipate future conditions, and assess whether the SWCD's proposed practices are adequate. The assessment validates a few items recommended by the SWCD and suggests a few others, including continued monitoring, a comprehensive approach to the restoration, and prioritization of restoration at the most at-risk sites, such as 404 Broadway Street and 116 4th Street West.

For more background information about the Spring Creek Project, please visit the District's website at www.lowermnriverwd.org/projects/spring-creek. A copy of the Spring Creek Hydrology Review Report is also attached for your review.

Next Steps

The Spring Creek system has been changing quickly, and there is an urgency to take stabilization measures. The District would like to meet with you to discuss the status of the creek and your interest in moving forward on a streambank stabilization project to address this risk.

Thank you for considering the Spring Creek Project. If you have questions or would like to schedule an informational meeting, please contact me at (763) 545-4659 or naiadconsulting@gmail.com or Della Schall Young at (651) 249-6974 or della@youngecg.com.

Sincerely,

Linda Loomis

Linda Loomis, Administrator

Enclosure Attachment (1)
Spring Creek Hydrology Review Report

cc: Della Schall Young, Young Environmental Consulting Group