



Please note the meeting will be held in person at the Carver County Government Center on the Wednesday, June 21, 2023. The meeting will also be available virtually using this [link](#).

LOWER MINNESOTA RIVER WATERSHED DISTRICT

Lower Minnesota River Watershed District

7:00 PM

Wednesday, July 19, 2023

Carver County Government Center

602 East Fourth Street, Chaska, MN 55318

Agenda Item	Discussion
1. Call to order	A. Roll Call
2. Approval of agenda	
3. Citizen Forum	<i>Citizens may address the Board of Managers about any item not contained on the regular agenda. A maximum of 15 minutes is allowed for the Forum. If the full 15 So are not needed for the Forum, the Board will continue with the agenda. The Board will take no official action on items discussed at the Forum, with the exception of referral to staff or a Board Committee for a recommendation to be brought back to the Board for discussion or action at a future meeting.</i>
4. Consent Agenda	<p><i>All items listed under the consent agenda are considered to be routine by the Board of Managers and will be enacted by one motion and an affirmative vote of a majority of the members present. There will be no separate discussion of these items unless a Board Member or citizen request, in which event, the items will be removed from the consent agenda and considered as a separate item in its normal sequence on the agenda.</i></p> <ul style="list-style-type: none"> A. Approve Minutes June 21, 2023 Regular Meeting B. Receive and file May and June 2023 Financial reports C. Approval of Invoices for payment <ul style="list-style-type: none"> i. Clifton Larson Allen (CLA) – Financial services through June 2023 ii. Rinke Noonan – June 2023 Legal Services iii. Daniel Hron – August 2023 office rent iv. Frenette Legislative Advisors – May, June & July 2023 legislative services v. US Bank Equipment Finance – June 2023 copier lease payment vi. Young Environmental Consulting Group, LLC – June 2023 technical, and Education & Outreach services vii. Naiad Consulting, LLC – June 2023 administrative services, mileage & expenses viii. Barr Engineering – June 2023 services related to Area #3 (wetland delineation & Threatened and Endangered Species Review) ix. 106 Group – June 2023 services related to Area #3 x. 106 Group – June 2023 services related to Vernon Avenue xi. Inter-Fluve – June 2023 Area #3 Design Services

	<ul style="list-style-type: none"> xii. Dakota County SWCD – Q2 2023 monitoring, cost share and education services xiii. ISG – June 2023 services related to Vernon Avenue Project xiv. 4M Fund – April Bank service charges D. Report on Citizen Advisory Committee E. LMRWD Permit Renewals F. LMRWD Permit Program Summary G. Authorize replacement of copier at Chaska Office and entering into a new lease agreement H. Reimburse Coalition for a Clean MN River for second half of Water Storage Initiative I. Reimburse Peggy Thomsen for Cost Share project at Palmer Circle J. Accept Quote and authorize payment of premium for D & O Insurance
5. New Business/ Presentations	<ul style="list-style-type: none"> A. LMRWD Gully Assessments B. 2024 LMRWD Budget Discussion <ul style="list-style-type: none"> i. Financing of Area #3 C. Report on County Fair Project by Daniel Linder
6. Old Business	<ul style="list-style-type: none"> A. 2021/2022 Financial Audit B. Lower Minnesota River East One Watershed One Plan Governance C. City of Carver Levee – no new information since last update D. Dredge Management – no new information since last update E. Watershed Management Plan – no new information since last update F. 2023 Legislative Action G. Education & Outreach H. LMRWD Projects <ul style="list-style-type: none"> <i>(only projects that require Board action will appear on the agenda. Informational updates will appear on the Administrator Report)</i> <ul style="list-style-type: none"> i. Area #3 I. Permits & Project Reviews <ul style="list-style-type: none"> <i>(only projects that require Board action will appear on the agenda. Informational updates will appear on the Administrator Report)</i> <ul style="list-style-type: none"> i. Shakopee Mdewakanton Sioux Community Organic Recycling Facility (LMRWD No. 2022-016) <ul style="list-style-type: none"> a. Maintenance Agreement between the LMRWD and Shakopee Mdewakanton Sioux Community ii. Peterson Wetland Bank (LMRWD No.2022-037) iii. KTI Fencing Property (LMRWD No. 2023-014) iv. Bloomington Storm Sewer Maintenance (LMRWD No. 2023-015) v. Chaska Tech Center – Amendment (LMRWD No. 2023-008) vi. Chaska Local Surface Water Management Plan vii. 535 Lakota Lane, Chanhassen – work without a permit
7. Communications	<ul style="list-style-type: none"> A. Administrator Report B. President C. Managers D. Committees E. Legal Counsel F. Engineer

8. Adjourn	Next meeting of the LMRWD Board of Managers is 7:00 pm Wednesday, August 16, 2023.
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Upcoming meetings/Events

Managers are invited to attend any of these meetings. Most are free of charge and if not the LMRWD will reimburse registration fees.

- Metro MN Watersheds – Wednesday, July 18, 2023 – [virtual only](#) (Zoom)
- Lower MN River East 1W1P Advisory Committee meeting, Wednesday, July 19, 2023, 10:00 am to 1:00pm – virtual only
- Lower MN River East 1W1P Steering Committee meeting – Wednesday, July 19, 2023, 1:30 pm to 3:30pm – virtual only
- UMWA (Upper Mississippi Waterway Association) monthly meeting – July 20, 11:30 am to 1:00 pm, Lilydale Pool & Yacht Club – in-person only
- Lower MN River East 1W1P Policy Committee meeting – July 20, 2023, 3:00pm to 5:00 pm, in-person at 181 W Minnesota Street, Le Center, MN or [virtual](#) (MS Teams)
- [Salt Symposium](#) – August 1 & 2, virtual only
- LMRWD Citizen Advisory Committee meeting – Wednesday, August 2, 2023, 6:00pm, 8956 Braxton Drive, Eden Prairie (home of Marilyn & Tom Torkelson)

For Information Only

- **WCA Notices**
 - Dakota County - Notice of Application – MCEs Siphon Outlet Improvement Project Wetland Delineation – Boundary/Type (City of Eagan)
 - Carver County – Notice of Application – MN Bluff Trail Wetland Delineation
 - City of Bloomington – Notice of Decision – City of Bloomington Storm Infrastructure Maintenance No-Loss & Exemption
 - City of Shakopee – Shakopee Reliakor Wetland Delineation Wetland Boundary/Type
- **DNR Public Waters Work permits**
 - None
- **DNR Water Appropriation permits**
 - Carver County - Request for Comments – temporary appropriation for construction dewatering to improve natural gas service in the area of TH 41 & CSAH 61 project

Item 4.B.
LMRWD 7-19-2023

BEGINNING BALANCE	30-Apr-23		\$ 1,030,296.26
ADD:			
General Fund Revenue:			
May 2023 Dividend		\$ 4,704.02	
payment of 2nd half of 2019 Watershed Based Funding Grant		\$ 91,021.00	
Payment of 2nd half of 2021 Dredge Management Funding		\$ 240,000.00	
Refund of double payment to HDR		\$ 708.08	
Total Revenue and Transfers In			\$ 336,433.10
DEDUCT:			
Debits/Reductions			
Young Environmental Consulting January 2023 invoices for technical services		\$ 43,609.57	
CLA (Clifton Larson Allen) January 2023 financial services		\$ 4,409.50	
Daniel Hron June 2023 office rent		\$ 650.00	
Naiad Consulitng, LLC Mar 2023 Administrative services & expenses		\$ 11,686.86	
US Bank Equipment Finance February 2023 copier lease payment		\$ 168.10	
Scott SWCD Q1 2023 Monitoring, Technical & Education Services		\$ 6,851.50	
Coalition for a Clean MN River Sponsor MN River Congress		\$ 100.00	
4M Fund Bank Service Charges		\$ 159.62	
Total Debits/Reductions			\$ 67,635.15
ENDING BALANCE	31-May-23		\$ 1,299,094.21

Lower Minnesota River Watershed District
General Fund Financial Report
Fiscal Year: January 1, 2023 through December 31, 2023
Meeting Date: July 19, 2023

FY 2023

	2023 Budget	May Actuals	YTD 2023	Over (Under) Budget
Administrative expenses	\$ 250,000.00	\$ 27,012.08	\$ 110,313.98	\$ (139,686.02)
Cooperative Projects				
Eden Prairie Bank Stabilization Area #3	\$ -	\$ 875.00	\$ 71,251.65	\$ 71,251.65
Gully Erosion Contingency Fund	\$ -	\$ -	\$ -	\$ -
Seminary Fen Ravine Restoration site A	\$ -	\$ -	\$ -	\$ -
Seminary Fen Ravine Restoration site C-2	\$ 20,000.00	\$ -	\$ -	\$ (20,000.00)
509 Plan Budget				
<i>Resource Plan Implementation</i>				
Watershed Resource Restoration Fund	\$ 100,000.00	\$ -	\$ -	\$ (100,000.00)
Gully Inventory	\$ 90,500.00	\$ 2,800.00	\$ 4,237.50	\$ (86,262.50)
MN River Corridor Management Project	\$ -	\$ -	\$ -	\$ -
Gun Club Fen Intrusion investigation	\$ -	\$ -	\$ -	\$ -
Assumption Creek Hydrology Restoration	\$ -	\$ -	\$ -	\$ -
Carver Creek Restoration	\$ -	\$ -	\$ -	\$ -
Groundwater Screening Tool Model	\$ -	\$ -	\$ -	\$ -
MN River Floodplain Model Feasibility Study	\$ 75,000.00	\$ 1,187.50	\$ 1,187.50	\$ (73,812.50)
Schroder Acres Park	\$ -	\$ -	\$ -	\$ -
Downtown Shakopee Stormwater BMPs	\$ 50,000.00	\$ -	\$ -	\$ (50,000.00)
PLOC Realignment/Wetland Restoration	\$ -	\$ -	\$ -	\$ -
Spring Creek Project	\$ 90,000.00	\$ -	\$ -	\$ (90,000.00)
West Chaska Creek	\$ -	\$ -	\$ -	\$ -
Sustainable Lakes Mgmt. Plan (Trout Lakes)	\$ -	\$ -	\$ -	\$ -
Geomorphic Assessments (Trout Streams)	\$ -	\$ -	\$ -	\$ -
Fen Stewardship Program	\$ 75,000.00	\$ 5,072.50	\$ 30,483.25	\$ (44,516.75)
District Boundary Modification	\$ -	\$ -	\$ -	\$ -
MN River Sediment Reduction Strategy	\$ -	\$ -	\$ -	\$ -
Local Water Management Plan reviews	\$ 5,000.00	\$ -	\$ 31.25	\$ (4,968.75)
Project Reviews	\$ 50,000.00	\$ 12,848.75	\$ 50,424.56	\$ 424.56
<i>Monitoring</i>	\$ 75,000.00	\$ 6,851.50	\$ 35,740.94	\$ (39,259.06)
<i>Watershed Management Plan</i>	\$ -	\$ 4,107.50	\$ 7,816.25	\$ 7,816.25
<i>Public Education/CAC/Outreach Program</i>	\$ 85,000.00	\$ 4,553.57	\$ 36,161.00	\$ (48,839.00)
<i>Cost Share Program</i>	\$ 20,000.00	\$ -	\$ 619.00	\$ (19,381.00)
Nine Foot Channel				
Transfer from General Fund	\$ -	\$ -	\$ -	\$ -
Dredge Site Improvements	\$ 240,000.00	\$ 2,326.75	\$ 192,675.97	\$ (47,324.03)
Total:	\$ 1,225,500.00	\$ 67,635.15	\$ 540,942.85	\$ (684,557.15)

Item 4.B.
LMRWD 7-19-2023

BEGINNING BALANCE	31-May-23		\$ 1,299,094.21
ADD:			
General Fund Revenue:			
June 2023 Dividend		\$ 5,671.27	
Tax Settlement - Scott County - 2nd half payable 2023		\$ 177,673.74	
Permit review fee for KTI Fencing (LMRWD No. 2023-014)		\$ 750.00	
Total Revenue and Transfers In			\$ 184,095.01
DEDUCT:			
Debits/Reductions			
Young Environmental Consulting	May 2023 invoices for technical services	\$ 69,755.99	
CLA (Clifton Larson Allen)	May 2023 financial services	\$ 2,952.55	
Daniel Hron	July 2023 office rent	\$ 650.00	
Naiad Consultitng, LLC	May 2023 Administrative services & expenses	\$ 8,845.89	
US Bank Equipment Finance	June 2023 copier lease payment	\$ 168.10	
Managers	1st half 2023 per diem & expenses payment to Managers	\$ 3,226.50	
Barr Engineering Co.	May 2023 Area #3 technical services	\$ 3,874.00	
106 Group	Cultural heritage assessment of dredge site & Area #3	\$ 6,338.00	
Bolton & Menk, Inc.	May & June 2023 technical service for dredge site	\$ 11,734.50	
Braun Intertec	Geotechnical services for Vernon Avenue project	\$ 5,145.00	
I & S Group, Inc.	May & June 2023 services for Vernon Ave. project	\$ 6,276.75	
Metro Sales, Inc.	Payment on copier maintenance agreement	\$ 116.33	
Metro Conservation Districts	Sponsor Metro Children's Water Festival	\$ 1,650.00	
Kriten Powell	Reimburse for Educator Mini-Grant for Black Hawk MS	\$ 500.00	
RailPros	Railroad flagging services for Vernon Avenue Project	\$ 1,018.00	
Rinke Noonan	April & May 2023 legal services	\$ 1,738.00	
TimeSaver Off Site Secretarial	Preparation of April & May 2023 meeting minutes	\$ 469.00	
4M Fund	Bank Service Charges	\$ 40.00	
Total Debits/Reductions			\$ 124,498.61
ENDING BALANCE	30-Jun-23		\$ 1,358,690.61

Lower Minnesota River Watershed District
General Fund Financial Report
Fiscal Year: January 1, 2023 through December 31, 2023
Meeting Date: July 19, 2023

FY 2023

	2023 Budget	June Actuals	YTD 2023	Over (Under) Budget
Administrative expenses	\$ 250,000.00	\$ 34,392.87	\$ 144,706.85	\$ (105,293.15)
Cooperative Projects				
Eden Prairie Bank Stabilization Area #3	\$ -	\$ 13,565.00	\$ 84,816.65	\$ 84,816.65
Gully Erosion Contingency Fund	\$ -	\$ -	\$ -	\$ -
Seminary Fen Ravine Restoration site A	\$ -	\$ -	\$ -	\$ -
Seminary Fen Ravine Restoration site C-2	\$ 20,000.00	\$ -	\$ -	\$ (20,000.00)
509 Plan Budget				
<i>Resource Plan Implementation</i>				
Watershed Resource Restoration Fund	\$ 100,000.00	\$ -	\$ -	\$ (100,000.00)
Gully Inventory	\$ 90,500.00	\$ 7,702.50	\$ 11,940.00	\$ (78,560.00)
MN River Corridor Management Project	\$ -	\$ -	\$ -	\$ -
Gun Club Fen Intrusion investigation	\$ -	\$ -	\$ -	\$ -
Assumption Creek Hydrology Restoration	\$ -	\$ -	\$ -	\$ -
Carver Creek Restoration	\$ -	\$ -	\$ -	\$ -
Groundwater Screening Tool Model	\$ -	\$ -	\$ -	\$ -
MN River Floodplain Model Feasibility Study	\$ 75,000.00	\$ 5,413.75	\$ 6,601.25	\$ (68,398.75)
Schroder Acres Park	\$ -	\$ -	\$ -	\$ -
Downtown Shakopee Stormwater BMPs	\$ 50,000.00	\$ -	\$ -	\$ (50,000.00)
PLOC Realignment/Wetland Restoration	\$ -	\$ -	\$ -	\$ -
Spring Creek Project	\$ 90,000.00	\$ 1,143.75	\$ 1,143.75	\$ (88,856.25)
West Chaska Creek	\$ -	\$ -	\$ -	\$ -
Sustainable Lakes Mgmt. Plan (Trout Lakes)	\$ -	\$ -	\$ -	\$ -
Geomorphic Assessments (Trout Streams)	\$ -	\$ -	\$ -	\$ -
Fen Stewardship Program	\$ 75,000.00	\$ 10,173.50	\$ 40,656.75	\$ (34,343.25)
District Boundary Modification	\$ -	\$ -	\$ -	\$ -
MN River Sediment Reduction Strategy	\$ -	\$ -	\$ -	\$ -
Local Water Management Plan reviews	\$ 5,000.00	\$ -	\$ 31.25	\$ (4,968.75)
Project Reviews	\$ 50,000.00	\$ 11,941.00	\$ 62,365.56	\$ 12,365.56
<i>Monitoring</i>	\$ 75,000.00	\$ -	\$ 35,740.94	\$ (39,259.06)
<i>Watershed Management Plan</i>	\$ -	\$ 4,913.00	\$ 12,729.25	\$ 12,729.25
<i>Public Education/CAC/Outreach Program</i>	\$ 85,000.00	\$ 7,467.74	\$ 43,628.74	\$ (41,371.26)
<i>Cost Share Program</i>	\$ 20,000.00	\$ -	\$ 619.00	\$ (19,381.00)
Nine Foot Channel				
Transfer from General Fund	\$ -	\$ -	\$ -	\$ -
Dredge Site Improvements	\$ 240,000.00	\$ 27,785.50	\$ 220,461.47	\$ (19,538.53)
Total:	\$ 1,225,500.00	\$ 124,498.61	\$ 665,441.46	\$ (560,058.54)



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting
Wednesday, July 19, 2023

Agenda Item

Item 4. D. – Report on Citizen Advisory Committee

Prepared By

Linda Loomis, Administrator

Summary

There was not a meeting of the Citizen Advisory Committee (CAC) meeting in July, as the regular meeting date fell on the Fourth of July.

The next meeting of the CAC will be 6:00 pm, Wednesday, August 2, 2023. The CAC will tour a native garden in Eden Prairie. Managers are invited to attend and can contact Administrator Loomis for the address of the garden.

Attachments

No attachments

Recommended Action

No action recommended



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting
Wednesday, July 19, 2023

Agenda Item

Item 4. E. – LMRWD Permit Renewals

Prepared By

Linda Loomis, Administrator

Summary

Three projects have requested that the LMRWD extend the permits issued. Technical Memorandum – July 2023 Permit Renewal Requests dated July 12, 2023, is attached with permit renewals that have been requested.

Attachments

Technical Memorandum – July 2023 Permit Renewal Requests dated July 12, 2023

Recommended Action

Motion to approve permit extensions contained in Table 1 Technical Memorandum – July 2023 Permit Renewal Requests dated July 12, 2023

Technical Memorandum

To: Linda Loomis, Administrator
Lower Minnesota River Watershed District

From: Erica Bock, Water Resources Scientist
Hannah LeClaire, PE, Project Manager

Date: July 12, 2023

Re: July 2023 Permit Renewal Requests

Per Lower Minnesota River Watershed District (LMRWD) Rule A, it is the permittee's responsibility to request permit renewals when necessary. However, LMRWD staff has taken a proactive approach by sending out monthly reminders to current permit holders with upcoming permit expirations.

Table 1 summarizes the permittees who have responded to the permit expiration reminder, confirmed that no significant changes to the proposed project have occurred since the original permit was issued, and requested a permit extension to complete their projects.

Table 1. Summary of July 2023 LMRWD permit renewal requests

LMRWD No.	Project Name	City	Previous Expiration	Recommended Expiration Date
2022-028	Quarry Lake Park Restroom	Shakopee	7/22/2023	12/31/2023
	<u>Reason for Extension:</u> site restoration and stabilization still in progress			
2022-011	Biffs, Inc.	Burnsville	8/16/2023	10/31/2023
	<u>Reason for Extension:</u> project is still under construction			
2021-016	Whispering Waters	Shakopee	7/13/2023	7/13/2024
	<u>Reason for Extension:</u> project is still under construction			

Recommendation

Staff recommends renewing the permits provided in Table 1.

LMRWD Permit Program Summary



Permit Number	Project Name	Status	Pre-Permit Meeting	Date Received	Date Considered Complete	Board Actions			Permit Issued	Permit Expiration Date	First Renewal Expiration	Second Renewal Expiration	Construction Completed	Date Permit Closed
						Information Only	Conditional Approval	Approval						
2019-065	TH 101 Chanhassen	Closed		11/8/2019				11/20/2019	11/20/2019	1/20/2020				11/22/2022
2019-085	Minnesota Bluffs LRT Regional Trail Repair	Closed		12/12/2019					5/20/2020	6/1/2023				7/22/2022
2020-100	Peterson Farms Road Maintenance	Closed		5/6/2020	5/6/2020			5/20/2020	5/21/2020	5/21/2021				8/11/2022
2020-103	Prairie Heights Development	Expired		5/27/2020	6/5/2020		6/17/2020		10/23/2020	10/23/2021				
2020-105	Freeway Landfill	Pre-Permit		8/19/2022		9/21/2022								
2020-110	CSAH 11 Reconstruction	Construction Complete		9/28/2020	11/3/2020		12/16/2020		4/13/2021	4/13/2022	4/20/2023			
2020-112	Vierling Industrial Project	Closed		6/25/2020	6/29/2020		7/15/2020							10/14/2022
2020-113	Fort Snelling Redevelopment (2019-057)	Active		7/20/2020	8/12/2020		8/19/2020		9/11/2020	8/19/2022	8/19/2023	8/19/2024		
2020-115	Quarry Lake Park Improvements	Closed		7/23/2020	9/8/2020		9/16/2020		9/16/2020	9/16/2021				3/17/2022
2020-116	Shakopee Memorial Bridge	Closed		8/24/2020	10/5/2020		10/21/2020		10/23/2020	10/23/2021				7/20/2022
2020-117	Greystone HQ	Closed		7/24/2020	9/10/2020			9/16/2020	9/16/2020	9/16/2021				10/3/2022
2020-123	Gaughan Companies Demolition	Closed		8/27/2020	8/27/2020			9/16/2020	9/17/2020	9/17/2021				10/15/2021
2020-123 (amended)	Shakopee Flats	Closed							2/17/2021	9/17/2021				
2020-126	Texas Roadhouse	Closed		9/17/2020	11/5/2020			11/18/2020	11/19/2020	11/18/2021				7/26/2022
2020-132	77th Underpass	Active	10/18/2020	10/21/2020	11/12/2020	11/18/2020	12/16/2020		7/27/2021	7/27/2022	7/27/2023			
2020-133	Shakopee Mix Use	Closed	10/29/2020	11/2/2020	11/2/2020			11/18/2020						
2020-135	Canterbury Crossings	Active		11/19/2020	12/3/2020		12/16/2020		5/11/2021	5/11/2022	4/20/2023	4/20/2024		
2021-002	CSAH 61 Drainage Ditch	Active		2/1/2021	10/11/2021			10/20/2021	10/21/2021	5/31/2022	10/20/2023			
2021-003	Southwest Logistics Center	Closed		2/11/2021	3/12/2021		3/17/2021		4/21/2021	4/21/2022				11/22/2022
2021-007	Burnsville Cemetery Expansion	Expired	3/5/2021	9/2/2021	9/17/2021		10/20/2021		11/17/2021	10/20/2022				
2021-009	Burnsville Industrial IV	Closed	4/2/2021	3/22/2021	3/31/2021		4/21/2021		4/23/2021	4/21/2022				10/5/2022
2021-011	2021 Shakopee Street Reconstruction	Closed	3/30/2021	3/30/2021	4/16/2021		4/21/2021		4/28/2021	4/28/2022				7/25/2022
2021-012	Canterbury Park Parking Lots Phase 2	Closed	4/1/2021	4/2/2021	4/10/2021		4/21/2021		5/11/2021	5/11/2022				7/25/2022
2021-013	Summerland Place	Closed		4/8/2021	5/27/2021		4/21/2021		4/26/2021	4/22/2022				3/22/2022

Permit Number	Project Name	Status	Pre-Permit Meeting	Date Received	Date Considered Complete	Board Actions			Permit Issued	Permit Expiration Date	First Renewal Expiration	Second Renewal Expiration	Construction Completed	Date Permit Closed
						Information Only	Conditional Approval	Approval						
2021-015	Stagecoach Rd Improvements	Closed	4/16/2021	4/12/2021	4/30/2021		5/5/2021		5/7/2021	5/5/2022				3/23/2022
2021-016*	Whispering Waters	Active		4/14/2021	6/4/2021		6/16/2021		7/13/2021	7/13/2022	7/13/2023	7/13/2024		
2021-017	Capstone35	Closed		4/20/2021	5/12/2021		5/19/2021		8/19/2021	8/17/2022				11/22/2022
2021-018	Jefferson Court	Active		4/22/2021	5/17/2021		6/2/2021		6/3/2021	6/2/2022	6/2/2023	6/2/2024		
2021-019	Cretex Site	Closed	4/23/2021	4/26/2021	4/30/2021		5/5/2021		5/7/2021	5/5/2022				5/5/2022
2021-020	Core Crossing Apartments (Prev. Southbridge)	Construction Complete		6/14/2021	7/13/2021		7/21/2021		8/5/2021	6/15/2023	6/17/2023		11/1/2022	
2021-022	2021 Security & Safety Center	Active		5/18/2021	10/29/2021		11/17/2021		3/18/2022	3/18/2023	3/18/2024			
2021-023	106th Improvements Project	Construction Complete		5/25/2021	5/28/2021		6/2/2021		6/17/2022	6/17/2022	6/17/2023		4/17/2023	
2021-025	TH13/Dakota Ave Improvement	Active		6/11/2021	6/15/2021		2/16/2022		5/20/2022	5/20/2023	5/20/2024			
2021-030	Building Renovation Park Jeep	Active		7/9/2021	7/16/2021		9/15/2021		6/21/2022	6/21/2023	8/15/2023			
2021-031	Caribou Coffee	Closed	6/1/2021	7/9/2021	8/10/2021		8/18/2021		8/19/2021					10/4/2022
2021-033	MN MASH	Active	6/23/2021	9/17/2021				6/15/2022	6/17/2022	6/17/2023	11/30/2023			
2021-034	Circle K Holiday Station Stores	Closed	8/25/2021	7/26/2021	9/10/2021		9/15/2021		10/19/2021	9/15/2022				7/12/2022
2021-035	135W Frontage Trail	Active		12/15/2021	12/22/2021		1/19/2022		11/3/2022	11/3/2023				
2021-039	River Bluffs Improvements	Active		7/23/2021	8/12/2021		8/18/2021		10/1/2021	8/18/2022				
2021-040	Canterbury Independent Senior Living	Active		8/11/2021	8/19/2021		9/15/2021	9/15/2022	8/19/2022	10/1/2023				
2021-041	Line 0832	Closed		9/7/2021	9/7/2021		9/15/2021		9/17/2021	9/15/2022				6/27/2022
2021-042	Hwy 13 & Lone Oak	Construction Complete		8/27/2021	9/16/2021		10/20/2021		10/22/2021	10/22/2022	6/30/2023		6/20/2023	
2021-045	Triple Crown Residences Phase II	Active		9/22/2021	10/27/2021		11/17/2021		11/19/2021	11/17/2022	11/17/2023			
2021-046	CenterPoint Dakota Station Facility	Closed		9/21/2021	10/15/2021		10/20/2021		10/22/2021	10/22/2022				9/12/2022
2021-047	River Valley Industrial Center	On Hold		9/21/2021										
2021-049	Stump Road Maintenance	Closed	10/20/2021	10/22/2021	10/29/2021		11/17/2021		11/19/2021	11/17/2022				9/5/2022
2021-052	Shakopee Dental Office	Construction Complete		11/3/2021	12/14/2021		12/15/2021		12/17/2021	12/15/2022			12/1/2022	
2021-057	Cliff Road Ramps	Active		12/14/2021	1/4/2022		1/19/2022		6/8/2022	6/8/2023	12/1/2023			
2021-058	Perimeter Gate Improvements	Active		12/15/2021	12/16/2021		1/19/2022		4/27/2022	4/27/2023	10/31/2023			
2022-002	CenterPoint MBL Nicollet River Crossing	Construction Complete		1/18/2022			3/16/2022		4/25/2022	4/25/2023	10/31/2023		12/17/2022	

						Board Actions								
Permit Number	Project Name	Status	Pre-Permit Meeting	Date Received	Date Considered Complete	Information Only	Conditional Approval	Approval	Permit Issued	Permit Expiration Date	First Renewal Expiration	Second Renewal Expiration	Construction Completed	Date Permit Closed
2022-003	Ivy Brook Parking East	Construction Complete		1/19/2022	2/25/2022		3/16/2022		5/16/2022	5/16/2023			2/16/2023	
2022-004	CHS Savage Terminal	Incomplete		1/27/2022										
2022-005	Chaska West Creek Apt	Active		2/8/2022	3/29/2023		4/19/2023		6/6/2023	6/6/2024				
2022-007	Engineered Hillside	Expired		2/15/2022	3/14/2022			4/20/2022	4/21/2022	4/21/2023				
2022-008	Ivy Brook Parking West	Construction Complete		2/16/2022	2/25/2022		3/16/2022		5/31/2022	5/31/2023			2/27/2023	
2022-010	Quarry Lake Trail and Ped Bridge	Active		2/24/2022			4/20/2022		3/1/2023	3/1/2024				
2022-011*	Biffs, Inc.	Active		2/28/2022	3/29/2022		4/20/2022		8/16/2022	8/16/2023	10/31/2023			
2022-013	Normandale & 98th St	Active		3/22/2022	4/1/2022		4/20/2022		4/22/2022	4/22/2023	11/30/2023			
2022-014	TH41 & CSAH61 Improvements	Active	1/6/2022	3/23/2022	5/11/2022		5/18/2022		12/13/2022	12/13/2023				
2022-015	Xcel Driveway	Incomplete	5/25/2023	6/21/2023										
2022-016*	ORF Relocation	Conditional Approval		4/20/2022	6/30/2023		7/19/2023							
2022-017	PLOC 2022 Bank Stabilization	Construction Complete		6/30/2022	7/5/2022			7/20/2022	7/21/2022	7/21/2023			6/12/2023	
2022-019	1494 SP 2785-433	Active		4/21/2022	6/24/2022		7/20/2022		4/10/2023	4/10/2024				
2022-021	CenterPoint Oak St N	Construction Complete		4/29/2022				6/15/2022	6/17/2022	6/17/2023			3/14/2023	
2022-022	Ace Rent A Car	Incomplete		5/10/2022										
2022-023	494 Corridors of Commerce	Pre-Permit	5/3/2022	5/19/2022		7/20/2022								
2022-024	Gedney Pickles Holding Pond Restoration	Construction Complete	6/16/2022	8/10/2022			9/21/2022		11/14/2022	11/14/2023				
2022-026	10521 Spyglass Dr	Construction Complete	5/31/2022	7/13/2022	8/8/2022			7/20/2022	8/8/2022	8/8/2023			11/30/2022	
2022-027	Ivy Brook Northeast	Construction Complete		7/5/2022			8/17/2022		8/31/2022	8/31/2023			11/30/2022	
2022-028*	Quarry Lake Park Restroom	Active		7/6/2022	7/8/2022		7/20/2022		7/22/2022	7/22/2023	12/31/2023			
2022-029	Reliakor	Closed		7/20/2022			8/17/2022		9/19/2022	9/19/2023				10/28/2022
2022-030	Frenchies Metals	Incomplete		7/22/2022										
2022-031	RSI Marine	Pre-Permit		7/18/2022		8/17/2022								
2022-034	Valleyfair Parking	Conditional Approval		9/26/2022	10/11/2022		10/19/2022							
2022-036	Structures Inc. Amendment	Conditional Approval		10/6/2022	12/2/2022		5/9/2023							
2022-037*	Peterson Wetland Bank	Conditional Approval		5/23/2023	6/30/2023	11/16/2022	7/19/2023							

Permit Number	Project Name	Status	Pre-Permit Meeting	Date Received	Date Considered Complete	Board Actions			Permit Issued	Permit Expiration Date	First Renewal Expiration	Second Renewal Expiration	Construction Completed	Date Permit Closed
						Information Only	Conditional Approval	Approval						
2022-039	Former Knox Site	Active		11/3/2022	12/19/2022		1/18/2023		6/6/2023	6/6/2024				
2022-040	Burnsville Sanitary Landfill	Conditional Approval		11/21/2022	2/15/2023		3/15/2023							
2022-041	35W SP 2782-352	Active		12/15/2022	2/10/2023		2/15/2023		4/10/2023	4/10/2024				
2022-042	3rd Street Bridge Replacement	Conditional Approval		12/16/2022	2/2/2023		2/15/2023							
2023-001	Lakota Lane After-the-Fact	Under Review		1/10/2023										
2023-002	Eagle Creek Bridge	Conditional Approval		1/13/2023	4/19/2023		5/9/2023							
2023-003	Ernst & Reidele Potential Development	No Permit Required		1/17/2023										
2023-004	CenterPoint Hwy 13 and Lynn Project	No Permit Required		1/24/2023										
2023-005	Cargill Savage West Safety Improvement Project	No Permit Required		1/25/2023										
2023-006	Borca Family DNR Dewater Review	No Permit Required		1/23/2023										
2023-007	MN River Greenway Trail	Conditional Approval		3/1/2023	3/15/2023		4/19/2023							
2023-008*	Chaska Tech Center Amendment	Active		3/4/2023	4/11/2023		4/19/2023	7/19/2023	5/15/2023	5/15/2024				
2023-009	AT&T Bloomington to Eureka Fiber	Active		3/31/2023	5/19/2023		6/21/2023		6/26/2023	6/26/2024				
2023-010	MN River Greenway RR Bridge	On Hold	4/5/2023											
2023-011	Quarry Lake Playground	Active		4/19/2023	4/24/2023	5/9/2023		4/24/2023	4/24/2023	4/24/2024				
2023-012	Concourse G Infill Pods 2-3	Active		5/4/2023	5/30/2023	6/21/2023		5/31/2023	5/31/2023	5/31/2024				
2023-013	Merriam Junction Trail	Incomplete	4/5/2023	5/8/2023										
2023-014*	KTI Fencing Property	Conditional Approval		5/16/2023	7/6/2023		7/19/2023							
2023-015*	City of Bloomington Storm Sewer Maintenance	Conditional Approval		5/24/2023	6/15/2023		7/19/2023							
2023-016	MAC Pond Maintenance Activities	Upcoming	6/15/2023											

						Board Actions								
Permit Number	Project Name	Status	Pre-Permit Meeting	Date Received	Date Considered Complete	Information Only	Conditional Approval	Approval	Permit Issued	Permit Expiration Date	First Renewal Expiration	Second Renewal Expiration	Construction Completed	Date Permit Closed

**Conditional Approval or Renewal, staff recommendation only, has not yet been presented to the Board for action*

STATUS DEFINITIONS:

Active Permit: Applicant has a valid permit issued by LMRWD

Cancelled by Applicant: Applicant withdrew their application for a LMRWD permit

Closed: Applicant has indicated the project has completed construction and that the permit file may be closed

Conditional Approval: LMRWD managers conditionally approved the permit application, pending receipt of additional information from applicant

Expired: Applicant either obtained conditional approval, approval, and/or was issued a permit and the expiration date has passed

Incomplete: Applicant applied for a permit, but the application is incomplete

No Permit Required: Applicant applied for a permit, but during the completeness review, it was determined that the project did not trigger the regulatory thresholds

On Hold: Applicant requested their application be placed on hold

Pre-Permit: Applicant has requested pre-permit application reviews or meetings, but has not yet applied for a permit from LMRWD

Under Review: Permit application is complete and under review by LMRWD staff

Construction Complete: project construction is complete but permit is not closed



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting
Wednesday, July 19, 2023

Agenda Item

Item 4. G. - Authorize replacement of copier at Chaska Office and entering into a new lease agreement

Prepared By

Linda Loomis, Administrator

Summary

The lease agreement on the copier in the LMRWD office expires this fall. Metro Sales, who has provided copiers to the LMRWD in the past, has presented a proposal for a new copier and a new 5-year lease agreement.

The proposal presented to the LMRWD is attached. A copier is less expensive than using a print service, such as Kinkos, Federal Express or Office Depot. The current copier has proved to be satisfactory and has met the needs of the LMRWD. Metro Sales service has been acceptable. I have requested cost estimates from other providers, but I have not received any at this time.

Attachments

Comparison of current copier to new copier

Copier brochure

2018 Copier Lease agreement

Recommended Action

Motion to authorize copier replacement and enter into new lease agreement



Lower MN Watershed

Monthly Costs

	<u>Current Status</u>	<u>Proposed Solution</u>
Current Costs:		
Ricoh MPC 2004ex Lease	\$168.10	
Maintenance Costs:	\$38.95	
New Machine and MA Plan:		
Bundled Ricoh IMC 2510 Program		\$216.89
TOTAL EXPENSE	\$207.05	\$216.89

RICOH
imagine. change.

Digital full color multifunction printers

IM C2510

IM C3010

IM C3510

IM C4510

IM C6010

✓ Printer ✓ Copier ✓ Scanner ✓ Fax



IM C2510



25 ppm

IM C3010



30 ppm

IM C3510



35 ppm

IM C4510



45 ppm

IM C6010



60 ppm

Intelligent devices that unlock powerful results

The office landscape has changed tremendously in the last few years. As more companies adopt hybrid and borderless work, digital workflows are opening up new possibilities for better information sharing, in-office space optimization, efficiency, and cost-effective operations.

At the same time, the need for more robust IT and print infrastructure, including improved software and hardware solutions to address security challenges, has emerged — and the pursuit of responsible environmental stewardship has never been more important.

Ricoh's latest generation of IM C Series is tailored to support businesses like yours in optimizing a digitally-enabled workplace with technology designed to enhance productivity and protect your data. These intelligent devices lead the market in environmental performance and offer seamless scalability to adapt to your changing business needs. They also provide employees an enhanced experience with a simple-to-use interface, the ability to create high-quality color output on-demand at a reasonable cost, and the versatility to easily transition between paper and digital workflows.

The IM C Series has everything you need to capture, print, connect, and keep your information secured to unlock powerful results, and build the ideal hybrid print infrastructure for your business.



Support your sustainability goals with leading Typical Electricity Consumption (TEC) values and more recycled plastic



Protect your business' data and intellectual property



Get the latest device technology and customization options to match your needs



Work more efficiently with improved usability and productivity





Designed for your workplace today — and tomorrow

Today, the need for a seamless print infrastructure is an essential part of a successful digital workplace strategy to support employees wherever they are.

With Ricoh's intelligent devices, you can digitize your document workflows and gain fast and secured access to your information when needed. With standard copy, print, and scan capabilities, you can customize your device by adding software solutions, apps, and cloud services to support every stage of your business growth.

The newest generation of the IM C Series offers users a seamless experience and great results. From brilliant color output to enhanced data security, scanning, and paper handling, these devices will help you elevate the way work gets done.

The new benchmark in sustainability

As an industry leader in environmental performance, we make a difference not just through our own commitments, but by supporting your targets, too. We help you save energy and minimize your environmental footprint and have also added enhanced scanning features to promote more digital workflows that help reduce paper consumption and waste.

More energy savings

Toner fixing accounts for up to 70% of a printer's energy consumption. Our innovative IM C Series offers significantly lower energy usage through a new toner that fuses at a lower temperature. Power consumption during Sleep Mode has been reduced to help you achieve a smaller carbon footprint and lower costs.

More recycled plastic

Designed for sustainability across its lifecycle, the new IM C Series incorporates the use of 50% post-consumer recycled plastics, while PET toner bottles are produced from 100% recycled plastics. Plastic packaging is reduced by 54% thanks to the use of more sustainable materials and removal of excess packaging.

Supporting a circular economy

The new IM C Series is designed to help reduce environmental impacts at each stage of the product lifecycle — from production, usage, and end-of-life collection and recycling.



Reliable protection of your data

Hybrid work has enabled new ways of employee collaboration and created opportunities for increased mobility, efficiency and flexibility. Inevitably, it also raises challenges when it comes to protecting intellectual property and sensitive data. Our IM C Series help you mitigate risk by placing the most advanced security technologies right at your fingertips. Built with the latest operating system, these new devices integrate a new admin management system and Ricoh's Always Current Technology for extra peace of mind.

Enhanced privileged account control

This feature gives you more freedom when creating MFP administrator roles. The number of admins is no longer limited to just four, eliminating risks related to sharing IDs. You can assign different privileges to each role and link it to your user ID system, including Windows and LDAP platforms.



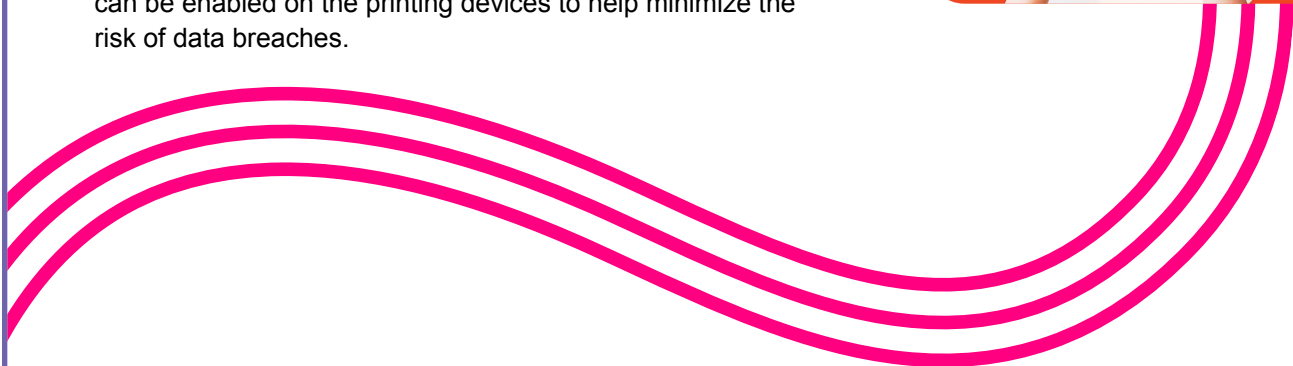
Trusted platform module support

The new IM C Series incorporates the latest version (2.0) of Trusted Platform Module (TPM) as standard. Stronger technology improves encryption strength and protects important data such as passwords and encryption keys stored in the device.



Multi-factor authentication

With optional components, multi-factor authentication (MFA) can be enabled on the printing devices to help minimize the risk of data breaches.



Technology that evolves with you

As your business grows, you need the right technology to take advantage of new opportunities. And as your digital transformation progresses, you need the right partner to help you stay ahead. Along with Ricoh's trusted quality and technical expertise, our eco-friendly intelligent devices can scale along with your business needs — and deliver value as your business grows. Underpinned by a secured cloud infrastructure, the IM C Series offers customization, flexibility, and reliable security and service updates that are just a download away.

Scalable and customizable

Discover the freedom of smart scalability. With the new IM C Series, you have the flexibility to tailor your device to suit your business needs. Simply download the latest features and upgrades as you need them. Add software solutions, applications, cloud services and customize your device. With the right digital workflow solutions, you can help your employees work faster, smarter, and more securely at every stage of your business growth.

Automatic security and software updates

Forget the days of buying a new device, waiting until the end of your contract, or contacting a technician every time you need updated technology. With Ricoh's Always Current Technology, new features, applications, and security updates can be downloaded and installed directly to your device on request, keeping you up to date with the latest versions and avoiding downtime.

RICOH Smart Integration (optional) and Smart Device Connector

Ricoh's Smart Integration allows you to personalize and enhance the capabilities of your IM C Series device with applications and solutions readily available from the cloud. The free Smart Device Connector app facilitates connecting mobile devices securely to your device, allowing users to easily scan, print, copy, and share documents from their smartphones and tablets. Save time, improve productivity and automate repetitive document workflow tasks with the push of a button. Now you can quickly route your documents to the right place, in the right format and with the right file name.

RICOH Streamline NX® (optional)

Ricoh's Streamline NX is a powerful suite of scalable, integrated document management applications and tools that allow you to implement standardized intelligent solutions in every office, globally. Streamline NX can also simplify device and document management tasks such as administration and reporting, user authentication, and more to help you cut operational costs, improve security and compliance, and make process improvements.

RICOH CloudStream (optional)

Ricoh's CloudStream allows you to manage your print infrastructure with ease. It is an all-in-one hybrid print platform that enables companies of all sizes to benefit from the agility and innovation of cloud technology. Streamline your print infrastructure, eliminate print servers, and reduce your IT burden with this cost-effective SaaS solution.



Enhanced quality, access, and productivity across digital and print

The IM C Series is designed to create the ultimate employee experience, with features that save time and increase efficiency. Its digital technologies give you the power to streamline workflows — making processes smoother and more efficient while encouraging better collaboration. New peripherals enhance paper handling while upgraded hardware ensures quick, reliable performance. The enhanced user interface features a simple and easy-to-use operating panel, making the new IM C Series an excellent hub for your information management needs.

Optimized scanning features

With a combination of powerful scanning functions and an intuitive user interface, daily scanning and copying routines are easier than ever before. High-quality and high-speed scanning makes it possible for employees to share files quickly and seamlessly.

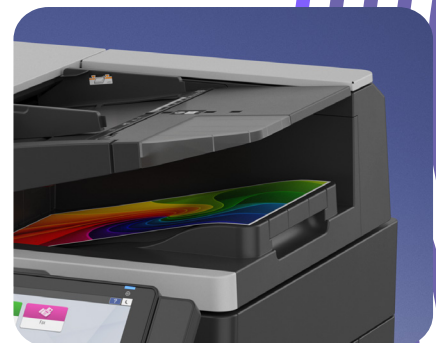
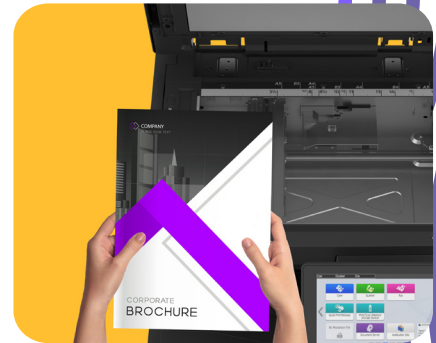
Third-generation Smart Operation Panel (SOP)

Our familiar, user-friendly operation panel has been enhanced for an even more intuitive and enjoyable experience. Brightness, touch sensitivity and position detection have all been enhanced for optimal access to the device's many resources and functions.

- Upgraded OS for better security and usability
- Integrated card reader cover option
- Greater touch sensitivity
- Tilttable for better visibility and accessibility

New efficiencies in paper handling

New peripherals, including wide media handling and finishing options, allow for the creation of a broad variety of sophisticated marketing materials such as brochures, booklets, and presentations in-house. The new single-pass document feeder scans two-sided documents in one pass and is built to handle high scan/copy volumes, smaller-sized and special paper types.



Find your perfect fit – meet the new generation of IM C Series intelligent devices

The new IM C Series combines a simple and sophisticated design with strong technical capabilities to match your way of working. Take a closer look.

IM C2510

An intelligent multifunction device built for your modern office and workstyle

- Prints up to 25 ppm, copy, scan, fax (optional)
- 1200 x 1200 dpi max print resolution
- Paper capacity up to 2,300 pages
- Embrace a suite of multifunction capabilities for a competitive edge



IM C3010/IM C3510

An intelligent multifunction device that keeps pace with how business gets done today

- Prints up to 30 or 35 ppm, copy, scan, fax (optional)
- 1200 x 1200 dpi max print resolution
- Paper capacity up to 4,700 pages
- Engineered to work the way you do work today and tomorrow



IM C4510/IM C6010

With impressive speed and productivity, this intelligent multifunction device helps keep your business moving

- Prints up to 45 or 60 ppm, copy, scan, fax (optional)
- 1200 x 1200 dpi max print resolution
- Paper capacity up to 4,700 pages
- Keep your teams in sync, even on the go



All models shown with optional accessories



IM C2510/IM C3010/IM C3510/IM C4510/IM C6010

MAIN SPECIFICATIONS

	IM C2510	IM C3010	IM C3510	IM C4510	IM C6010
GENERAL					
Warm-up time	24 seconds	25 seconds	25 seconds	24 seconds	24 seconds
First output speed: B/W	4.5 seconds	4.0 seconds	4.0 seconds	3.2 seconds	2.4 seconds
First output speed: full color	7.0 seconds	6.6 seconds	6.6 seconds	5.2 seconds	3.8 seconds
Continuous output speed	25 ppm	30 ppm	35 ppm	45 ppm	60 ppm
Memory: standard	Mainframe 2GB+SOP 4GB	Mainframe 4GB + SOP 4GB	Mainframe 4GB + SOP 4GB	Mainframe 4GB + SOP 4GB	Mainframe 4GB + SOP 4GB
SSD: standard	256 GB				
SPDF capacity	220 sheets				
Weight	96.1 kg / 211.9 lbs.	99.3 kg / 218.9 lbs.	99.3 kg / 218.9 lbs.	100.8 kg / 222.2 lbs.	100.8 kg / 222.2 lbs.
Dimensions:WxDxH	23.1" x 27.6" x 37.9" (587 mm x 701 mm x 963 mm)				
Power source	120V-127V, 60Hz				
COPIER					
Multiple copying	Up to 999 copies				
Resolution	600 dpi				
Zoom	From 25%-400% in 1% increments				
PRINTER					
CPU	Intel Apollo Lake 1.3 GHz	Intel Apollo Lake 1.3 GHz	Intel Apollo Lake 1.3 GHz	Intel Apollo Lake 1.6 GHz	Intel Apollo Lake 1.6 GHz
Printer language: standard	PCL5c, PCL6, PostScript®3™ Emulation, PDF Direct Print Emulation				
Printer language: option	Genuine Adobe® PostScript®3™, Adobe® PDF Direct Print				
Print resolution: maximum	Up to 1200 x 1200 dpi				
Network interface: standard	Ethernet 10 base-T/100 base-TX/1000 base-T, USB Host I/F Type A, USB Device I/F Type B				
Mobile printing capability	Apple AirPrint™, Mopria, Ricoh Smart Device Connector				
Windows® environments	Windows 8.1/10/11; Windows Server 2012/2012 R2/2016/2019/2022				
Mac OS environments	macOS v10.15 or later				
UNIX environments	UNIX Sun® Solaris, HP-UX, SCO OpenServer, RedHat® Linux Enterprise, IBM® AIX				
SAP® environments	SAP R/3,SAP S/4				
Other supported environments	IBM iSeries AS/400-using OS/400 Host Print Transform				
SCANNER					
Scanning speed: SPDF	150 ipm (simplex)/300 ipm (duplex)				
Resolution: maximum	Up to 1200dpi				
Compression method File Formats	Single Page: TIFF, JPEG, PDF, PDF/A, High Compression PDF, encryption PDF, Searchable PDF (Option required) Multi Page: TIFF, PDF (Default), PDF/A, High Compression PDF, encryption PDF, Searchable PDF (Option required)				
Scan destination types	E-mail, Folder, USB, URL, FTP				
FAX (Optional)					
Circuit	PSTN, PBX				
Transmission speed	3 seconds				
Modem speed: maximum	33.6 Kbps				
Resolution: standard	8x3.85 line/mm, 200x100 dpi				
Maximum Resolution: option	16x15.4 line/mm, 400x400 dpi				
Compression method	MH, MR, MMR, JBIG				
Scanning speed	94 spm				
Memory: standard	4 MB, (320 pages)				
Memory: maximum	60 MB, (4,800 pages)				
PAPER HANDLING					
Recommended paper size	1st Paper Tray: 8.5" x 11" (A4) 2nd Paper Tray: 5.5" x 8.5"- 12" x 18" (A3-A6, B4-B6), Envelopes Bypass: Up to 12" x 18", Envelopes Custom Sizes: Width:3.5" - 12.6" (90 - 320 mm), Length: 5.8" - 49.6" (148 - 1260mm)				
Paper input: standard	1,200 sheets (2 x 550 sheets+ 100-Sheet Bypass Tray)				
Paper input: maximum	2,300 sheets	4,700 sheets	4,700 sheets	4,700 sheets	4,700 sheets
Paper output: standard	500 sheets 8.5" x 11"(A4) or smaller; 250 sheets (B4) or larger				
Paper output: maximum	1,625 sheets	1,625 sheets	1,625 sheets	3,625 sheets	3,625 sheets
Paper weight	Standard Trays: 16 - 80 lb. /166 lb. Index (60 - 300 g/m2) Bypass Tray: 14 - 80 lb. /166 lb. Index (52 - 300 g/m2)				
	Duplex Unit: 14-45 lb. /142 lb. Index (52-169 g/m²)	Duplex Unit: 14 - 68 lb. /142 lb. Index (52 - 256 g/m²)	Duplex Unit: 14 - 68 lb. /142 lb. Index (52 - 256 g/m²)	Duplex Unit: 14 - 68 lb. /142 lb. Index (52 - 256 g/m²)	Duplex Unit: 14 - 68 lb. /142 lb. Index (52 - 256 g/m²)
Paper types	Plain, Recycled, Special, Colored, Letterhead, Cardstock, Pre-printed, Coated, Envelope, Label, Gloss				

IM C2510/IM C3010/IM C3510/IM C4510/IM C6010

MAIN SPECIFICATIONS

	IM C2510	IM C3010	IM C3510	IM C4510	IM C6010
ENVIRONMENTAL FEATURES					
Power consumption: maximum	Less than 1,584 W				
Power consumption operation: B&W	462 W	473 W	488 W	582 W	748 W
Power consumption operation: Full color:	509 W	522 W	549 W	672 W	876 W
Power consumption: ready/sleep	40.9 W/0.3 W	46.2 W/0.3 W	46.2 W/0.3 W	47.2 W/0.3 W	47.2 W/0.3 W
TEC*	0.25 kWh/week	0.30 kWh/week	0.35 kWh/week	0.45 kWh/week	0.69 kWh/week

* It is a reference value based on the ENERGY STAR Ver.3.0 test method.

CONSUMABLES

Toner (black)	16,500 prints	31,000 prints	31,000 prints	42,000 prints	42,000 prints
Toner (cyan/magenta/yellow)	10,500 prints	19,000 prints	19,000 prints	28,000 prints	28,000 prints

Consumable yields based on 3 pages/job and 5% coverage on A4 paper

PAPER SUPPLIES AND FINISHER OPTIONS

2x 550-sheet paper tray, 2,000-sheet Large capacity tray, 1,500-sheet Side large capacity tray, 1,000-sheet Hybrid finisher, 1,000-sheet Booklet finisher, 500-sheet Internal finisher, Internal shift tray, One-bin tray, 3,000-sheet finisher (IM C4510/IM C6010 only)

OTHER OPTIONS

Fax unit, G3 Interface, Fax memory unit, Cabinet, Stapleless unit, Punch units, Internal Multi-fold unit, Genuine Adobe PostScript(R) 3, IEEE 802.11 a/b/g/n/ac, OCR unit, 320 GB HDD, Enhanced Security SSD, Counter I/F unit, Card Reader Cover, IPDS Unit, Fiery Color Controller, Fiery Impose, Fiery Compose, Fiery Hot Folders

Some options may not be available at the time of market release.

Specifications are subject to change without notice.

For maximum performance and yield, we recommend using genuine Ricoh parts and supplies.

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R4171

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APPLICATION NO.
2431307AGREEMENT NO.
56254

provided by:

usbank.
EQUIPMENT FINANCE**Dealer Lease Agreement**

Send Account Inquiries to: 1310 Madrid Street, Suite 101 • Marshall, MN 56258 • Phone: (800) 328-5371 • Fax: (800) 328-9092
Send Payments to: P.O. Box 790418 • St. Louis, MO 63179-0418

The words Lessee, you and your refer to Customer. The words Lessor, we, us and our refer to U.S. Bank Equipment Finance, a division of U.S. Bank National Association ("U.S. Bank Equipment Finance").

CUSTOMER INFORMATION

FULL LEGAL NAME Lower Minnesota River Watershed District			STREET ADDRESS 112 East 5 th Street	
CITY Chaska	STATE MN	ZIP 55318	PHONE 952-856-5880	FAX
BILLING NAME (IF DIFFERENT FROM ABOVE)			BILLING STREET ADDRESS	
CITY	STATE	ZIP	E-MAIL	
EQUIPMENT LOCATION (IF DIFFERENT FROM ABOVE)				

SUPPLIER INFORMATION

NAME OF SUPPLIER Metro Sales Inc			STREET ADDRESS 1640 East 78 th Street	
CITY Minneapolis	STATE MN	ZIP 55423	PHONE 612-861-4000	FAX

EQUIPMENT DESCRIPTION

MAKE/MODEL/ACCESSORIES Ricoh MP C2004ex/Cabinet Type F/Internal Finisher SR3130	SERIAL NO.
--	------------

together with all replacements, parts, repairs, additions, and accessories incorporated therein or attached thereto and any and all proceeds of the foregoing, including, without limitation, insurance recoveries.
☐ See the attached Schedule A

TERM AND PAYMENT SCHEDULE

Term in 60 Months 60 Payments* of \$ 168.10 *plus applicable taxes
The lease contract payment ("Payment") period is monthly unless otherwise indicated.

END OF LEASE OPTIONS

You will have the following option at the end of the original term, provided that no event of default under the Agreement has occurred and is continuing. To the extent that any purchase option indicates that the purchase price will be the "Fair Market Value" (or "FMV"), such term means the value of the Equipment in continued use. 1) Purchase all but not less than all the Equipment for the Fair Market Value per paragraph 1, 2) Renew the Agreement per paragraph 1, or 3) Return the Equipment per paragraph 3.

THIS IS A NONCANCELABLE / IRREVOCABLE AGREEMENT; THIS AGREEMENT CANNOT BE CANCELED OR TERMINATED.

LESSOR ACCEPTANCE

U.S. Bank Equipment Finance

LESSOR

Signature: *Brian Mena*

SIGNATURE

Title: *DR Analyst* DATED: *11-29-18*

TITLE

DATED

CUSTOMER ACCEPTANCE

By signing below, you certify that you have reviewed and do agree to all terms and conditions of this Agreement on this page and on page 2 attached hereto.

Lower Minnesota River Watershed District

CUSTOMER (as referenced above)

Signature: *Linda Loomis*

SIGNATURE

Title: *Administrator* DATED: *10-26-18*

TITLE

DATED

FEDERAL TAX ID. #

PRINT NAME

ACCEPTANCE OF DELIVERY

You certify that all the Equipment listed above has been furnished, that delivery and installation has been fully completed and is satisfactory. Upon you signing below, your promises herein will be irrevocable and unconditional in all respects. You understand that we have purchased the Equipment from the Supplier, and you may contact the Supplier for a full description of any warranty rights under the supply contract, which we hereby assign to you for the term of this Agreement (or until you default). Your approval as indicated below of our purchase of the Equipment from the Supplier is a condition precedent to the effectiveness of this Agreement.

CUSTOMER (as referenced above)

Signature: *Linda Loomis*

SIGNATURE

Title: *Administrator* DATE OF DELIVERY: *10-26-18*

TITLE

DATE OF DELIVERY

27792 (Metro Sales)

Page 1 of 2

Rev. 03/08/2017

1. **AGREEMENT:** For business purposes only, you agree to lease from us the goods (the "Equipment") and/or to finance certain licensed software and services ("Financed Items"), which are included in the word "Equipment" unless separately stated, as described on page 1 of this Agreement, as it may be supplemented from time to time. You agree to all of the terms and conditions contained in this Agreement and any supplement, which (with the acceptance certification) is the entire agreement regarding the Equipment ("Agreement") and which supersedes any purchase order or invoice. You authorize us to correct or insert missing Equipment identification information and to make corrections to your proper legal name and address. This Agreement becomes valid upon execution by us and will start on the date we pay the Supplier. Interim rental/lease date adjustments will be in an amount equal to 1/30th of the Payment, multiplied by the number of days between the Agreement start date and the first Payment due date. This Agreement will renew for month-to-month terms unless you purchase or return the Equipment (according to the conditions herein) and send us written notice at least 30 days (before the end of any term) that you do not want it renewed. If any provision of this Agreement is declared unenforceable in any jurisdiction, the other provisions herein shall remain in full force and effect in that jurisdiction and all others.

2. **RENT, TAXES AND FEES:** You will pay the monthly Payment (as adjusted) when due, plus any applicable sales, use and property taxes. The base Payment will be adjusted proportionately upward or downward: (1) by up to 10% to accommodate changes in the actual Equipment cost; (2) if the shipping charges or taxes differ from the estimate given to you; and (3) to comply with the tax laws of the state in which the Equipment is located. If we pay any taxes, insurance or other expenses that you owe hereunder, you agree to reimburse us when we request and to pay us a processing fee for each expense or charge we pay on your behalf. We may charge you for any filing fees required by the Uniform Commercial Code (UCC) or other laws, which fees vary state-to-state. By the date the first Payment is due, you agree to pay us an origination fee, as shown on our invoice or addendum, to cover us for all closing costs. We will have the right to apply all sums, received from you, to any amounts due and owed to us under the terms of this Agreement. If for any reason your check is returned for nonpayment, you will pay us a bad check charge of \$30 or, if less, the maximum charge allowed by law. We may make a profit on any fees, estimated tax payments and other charges paid under this Agreement.

3. **MAINTENANCE AND LOCATION OF EQUIPMENT; SECURITY INTEREST:** At your expense, you agree to keep the Equipment: (1) in good repair, condition and working order, in compliance with applicable manufacturers' and regulatory standards; (2) free and clear of all liens and claims; and (3) only at your address shown on page 1, and you agree not to move it unless we agree. As long as you have given us the written notice as required in paragraph 1 prior to the expiration or termination of this Agreement's term, if you do not purchase the Equipment, you will return all but not less than all of the Equipment and all related manuals and use and maintenance records to a location we specify, at your expense, in retail re-salable condition, full working order and complete repair. You are solely responsible for removing any data that may reside in the Equipment you return, including but not limited to hard drives, disk drives or any other form of memory. You grant us a security interest in the Equipment to secure all amounts you owe us under any agreement with us, and you authorize us to file a financing statement (UCC-1). You will not change your state of organization, headquarters or residence without providing prior written notice to us so that we may amend or file a new UCC-1. You will notify us within 30 days if your state of organization revokes or terminates your existence.

4. **COLLATERAL PROTECTION; INSURANCE; INDEMNITY; LOSS OR DAMAGE:** You agree to keep the Equipment fully insured against risk and loss, with us as lender's loss payee, in an amount not less than the original cost until this Agreement is terminated. You also agree to obtain a general public liability insurance policy with such coverage and from such insurance carrier as shall be satisfactory to us and to include us as an additional insured on the policy. Your insurance policy(s) will provide for 10 days advance written notice to us of any modification or cancellation. You agree to provide us certificates or other evidence of insurance acceptable to us. If you fail to comply with this requirement within 30 days after the start of this Agreement, we may charge you a monthly property damage surcharge of up to .0035 of the Equipment cost as a result of our credit risk and administrative and other costs, as would be further described on a letter from us to you. We may make a profit on this program. **NOTHING IN THIS PARAGRAPH WILL RELIEVE YOU OF RESPONSIBILITY FOR LIABILITY INSURANCE ON THE EQUIPMENT.** We are not responsible for, and you agree to hold us harmless and reimburse us for and to defend on our behalf against, any claim for any loss, expense, liability or injury caused by or in any way related to delivery, installation, possession, ownership, use, condition, inspection, removal, return or storage of the Equipment. You are responsible for the risk of loss or for any destruction of or damage to the Equipment. You agree to promptly notify us in writing of any loss or damage. If the Equipment is destroyed and we have not otherwise agreed in writing, you will pay to us the unpaid balance of this Agreement, including any future rent to the end of the term plus the anticipated purchase price of the Equipment (both discounted at 2%). Any proceeds of insurance will be paid to us and credited, at our option, against any loss or damage. You authorize us to sign on your behalf and appoint us as your attorney-in-fact to endorse in your name any insurance drafts or checks issued due to loss or damage to the Equipment. All indemnities will survive the expiration or termination of this Agreement.

5. **ASSIGNMENT:** YOU HAVE NO RIGHT TO SELL, TRANSFER, ASSIGN OR SUBLEASE THE EQUIPMENT OR THIS AGREEMENT, without our prior written consent. Without our prior written consent, you shall not reorganize or merge with any other entity or transfer all or a substantial part of your ownership interests or assets. We may sell, assign, or transfer this Agreement without notice. You agree that if we sell, assign or transfer this Agreement, our assignees will have the same rights and benefits that we have now and will not be subject to any of our obligations. You agree that the new Lessor will not be subject to any claims, defenses, or offsets that you may have against us. You shall cooperate with us in executing any documentation reasonably required by us or our assignee to effectuate any such assignment. This Agreement shall be binding on and inure to the benefit of the parties hereto and their respective successors and assigns.

6. **DEFAULT AND REMEDIES:** You will be in default if: (a) you do not pay any Payment or other sum due to us or any other person when due or if you fail to perform in accordance with the covenants, terms and conditions of this Agreement or any other agreement with us or any of our affiliates or any material agreement with any other lender; (b) you make or have made any false statement or misrepresentation to us; (c) you or any guarantor dies, desolves or terminates existence; (d) there has been a material adverse change in your or any guarantor's financial, business or operating condition; or (e) any guarantor defaults under any guaranty for this Agreement. If any part of a Payment is more than 5 days late, you agree to pay a late charge of 10% of the Payment which is late or if less, the maximum charge allowed by law. If you are ever in default, at our option, we can terminate this Agreement and require that you pay the unpaid balance of this Agreement, including any future Payments to the end of the term plus the anticipated purchase price of the Equipment (both discounted at 2%). We may recover default interest on any unpaid amount at the rate of 12% per year. Concurrently and cumulatively, we may also use any or all of the remedies available to us under Articles 2A and 9 of the UCC and any other law, including requiring that you: (1) return the Equipment to us to a location we specify; and (2) immediately stop using any Financed Items. In addition, we will have the right, immediately and without notice or other action, to set-off against any of your liabilities to us any money, including depository account balances, owed by us to you, whether or not due. In the event of any dispute or enforcement of rights under this Agreement or any related agreement, you agree to pay our reasonable attorney's fees (including any incurred before or at trial, on appeal or in any other proceeding), actual court costs and any other collection costs, including any collection agency fee. If we have to take possession of the Equipment, you agree to pay the costs of repossession, moving, storage, repair and sale. The net proceeds of the sale of any Equipment will be credited against what you owe us under this Agreement. **YOU AGREE THAT WE WILL NOT BE RESPONSIBLE TO PAY YOU ANY CONSEQUENTIAL, INDIRECT OR INCIDENTAL DAMAGES FOR ANY DEFAULT, ACT OR OMISSION BY ANYONE.** Any delay or failure to enforce our rights under this Agreement will not prevent us from enforcing any rights at a later time. You agree that this Agreement is a "Finance Lease" as defined by Article 2A of the UCC and your rights and remedies are governed exclusively by this Agreement. You waive all rights under sections 2A-608 through 522 of the UCC. If interest is charged or collected in excess of the maximum lawful rate, we will not be subject to any penalties.

7. **INSPECTIONS AND REPORTS:** We will have the right, at any reasonable time, to inspect the Equipment and any documents relating to its use, maintenance and repair. Within 30 days after our request, you will deliver all requested information (including tax returns) which we deem reasonably necessary to determine your current financial condition and faithful performance of the terms hereof. This may include: (i) compiled, reviewed or audited annual financial statements (including, without limitation, a balance sheet, a statement of income, a statement of cash flow, a statement of changes in equity and notes to financial statements) within 120 days after your fiscal year end, and (ii) management-prepared interim financial statements within 45 days after the requested reporting period(s). Annual statements shall set forth the corresponding figures for the prior fiscal year in comparative form, all in reasonable detail without any qualification or exception deemed material by us. Unless otherwise accepted by us, each financial statement submitted to us shall be prepared in accordance with generally accepted accounting principles consistently applied and shall fairly and accurately present your financial condition and results of operations for the period to which it pertains.

8. **USA PATRIOT ACT NOTICE; FAXED OR SCANNED DOCUMENTS, MISC.:** To help the government fight the funding of terrorism and money laundering activities, federal law requires all financial institutions to obtain, verify, and record information that identifies each customer who opens an account. When you enter into a transaction with us, we ask for your business name, address and other information that will allow us to identify you. We may also ask to see other documents that substantiate your business identity. You agree to submit the original duly-signed documents to us via overnight courier the same day of the facsimile or scanned transmission of the documents. Any faxed or scanned copy may be considered the original, and you waive the right to challenge in court the authenticity or binding effect of any faxed or scanned copy or signature thereon. You agree to execute any further documents that we may request to carry out the intent and purposes of this Agreement. All notices shall be mailed or delivered by facsimile transmission or overnight courier to the respective parties at the addresses shown on this Agreement or such other address as a party may provide in writing from time to time. By providing any telephone number, now or in the future, for a cell phone or other wireless device, you are expressly consenting to receiving communications, regardless of their purpose, at that number, including, but not limited to, prerecorded or artificial voice message calls, text messages, and calls made by an automatic dialing system from us and our affiliates and agents. These calls and messages may incur access fees from your provider.

9. **WARRANTY DISCLAIMERS:** YOU AGREE THAT YOU HAVE SELECTED THE SUPPLIER AND EACH ITEM OF EQUIPMENT BASED UPON YOUR OWN JUDGMENT AND YOU DISCLAIM ANY RELIANCE UPON ANY STATEMENTS OR REPRESENTATIONS MADE BY US. WE DO NOT TAKE RESPONSIBILITY FOR THE INSTALLATION OR PERFORMANCE OF THE EQUIPMENT. THE SUPPLIER IS NOT AN AGENT OF OURS AND WE ARE NOT AN AGENT OF THE SUPPLIER, AND NOTHING THE SUPPLIER STATES OR DOES CAN AFFECT YOUR OBLIGATION UNDER THIS AGREEMENT. YOU WILL CONTINUE TO MAKE ALL PAYMENTS UNDER THIS AGREEMENT REGARDLESS OF ANY CLAIM OR COMPLAINT AGAINST ANY SUPPLIER, LICENSOR OR MANUFACTURER, AND ANY FAILURE OF A SERVICE PROVIDER TO PROVIDE SERVICES WILL NOT EXCUSE YOUR OBLIGATIONS TO US UNDER THIS AGREEMENT. WE MAKE NO WARRANTIES, EXPRESS OR IMPLIED, OF, AND TAKE ABSOLUTELY NO RESPONSIBILITY FOR, MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, CONDITION, QUALITY, ADEQUACY, TITLE, DATA ACCURACY, SYSTEM INTEGRATION, FUNCTION, DEFECTS, OR ANY OTHER ISSUE IN REGARD TO THE EQUIPMENT, ANY ASSOCIATED SOFTWARE AND ANY FINANCED ITEMS.

10. **LAW, JURY WAIVER:** Agreements, warranties and commitments made by Lessor, concerning loans and other credit extensions must be in writing, survive consideration and be signed by Lessor to be enforceable. This Agreement may be modified only by written agreement and not by course of performance. This Agreement will be governed by and construed in accordance with Minnesota law. You consent to jurisdiction and venue of any state or federal court in Minnesota and waive the defense of inconvenient forum. For any action arising out of or relating to this Agreement or the Equipment, YOU AND WE WAIVE ALL RIGHTS TO A TRIAL BY JURY.



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting
Wednesday, July 19, 2022

Agenda Item

Item 4. H. – Authorize Payment to Coalition for a Clean Minnesota River Water Storage Initiative

Prepared By

Linda Loomis, Administrator

Summary

In 2019 and 2020, the LMRWD supported efforts by the Coalition for a Clean Minnesota River to lobby the Minnesota Legislature to support efforts to manage the flow of stormwater in the Minnesota River by establishing a program aimed at storing more water on the landscape. The LMRWD supported this effort financially by providing up to \$5,000 in matching funds each year for two years.

At the September 15, 2021, Board of Managers meeting, the Board of Managers approved a request to provide a matching grant again for \$5,000 over two years 2022 and 2023. This initiative was successful in obtaining \$17 million from the State of Minnesota to continue to support efforts to keep more water on the landscape and reduce runoff from agricultural landscapes.

Attachments

Original proposal request from Coalition for a Clean Minnesota River

Excerpt from September 2021 LMRWD Board of Manager meeting minutes approving grant

Statement for Match Funding to The Lower Minnesota River Watershed District From The Coalition for a Clean Minnesota River (CCMR)

Recommended Action

Motion to authorize distribution of grant funds in the amount of \$5,000.

Statement for Match Funding to The Lower Minnesota River Watershed District
From The Coalition for a Clean Minnesota River (CCMR)
By Scott Sparlin Coordinator/Facilitator Minnesota River Congress/ Ex. Dir. CCMR

Hours specific to **Water Storage Initiative** for Minnesota River Congress @ \$45 hr.

2022

July	20 hrs.	2023	January	50 hrs.
August	30 hrs.		February	45 hrs.
Sept.	32 hrs.		March	30 hrs.
October	32 hrs.		April	48 hrs.
November	40 hrs.		May	18 hrs.
December	28 hrs.		June	14 hrs.

Total Hours 387 = \$17,415

In person meetings

Mileage @ \$.54 (Mankato 7) 420, (St. Paul 4) 880, (Nicollet 1) 28, (Henderson 2) 360

Total Mileage 1688 miles = \$912

Ballroom Rental \$1200

Coffee, soft drinks, cookies, \$200

Total event cost \$1400

Total WSI expenses from 7-1-22 to 6-30-23 \$19,727

Money secured and designated for **Water Storage Initiative only** to date:

Nicollet Conservation Club	\$4,500
Izaak Walton League MN	325
Geri Nelson	500
New Ulm Area Sport Fishermen	1000
Friends of Pool 2	100
Crystal Waters Project	100
CCMR	1500
Rahr Malting Co.	1000
Lac qui Parle Lake Assn.	100
Jim Scheman	1000
Individual donor appeal total	\$2670

Total Matching dollars raised \$12,795

9-2-21

Lower Minnesota River Watershed

Linda Loomis, Administrator

112 5th St. East, Suite 102

Chaska, MN 55318

Building on our success in securing a Water Storage Program for the Minnesota River Basin this past legislative session, The Minnesota River Congress is now moving into the federal phase of our Water Storage Initiative. Our goal is to secure federal funding for the program by engaging our Minnesota Senators and Representatives to create legislation and/or gain access to current legislation. This action will provide the state program the adequate resources it will need to be implemented basin-wide and to the scale it needs to have significant impacts on the river system.

We are asking for \$10,000 over the next 2 years to cover a portion of our initiative's costs related to accomplish this goal. As in the past we are seeking funding from all partners to the degree they can give. The dollars you have donated in the past have made it easier to raise funds overall and with everyone chipping in something it makes us all good partners.

We appreciate your past support of our collective efforts and are asking for your support to continue this important work. We need funds to see this to its fruition. We highly value our partnership and will work diligently to make this a reality. We are also continuing to grow our already significant support for this critically needed program and with you on board we are stronger.

Contact me any time at 507 276 2280 or sesparlin@gmail.com

Thank you for your most serious consideration

Scott Sparlin Coordinator/Facilitator, Minnesota River Congress
Executive Director, the Coalition for a Clean Minnesota River

Minnesota River Congress/CCMR Water Storage Legislative Initiative
Work Plan-Timeline 9-1-21 to 7-1-23

September 1st, 2021, to July 1st, 2023

On behalf of our partnership, I have already made contacts with Senator Tina Smith's staff and Senator Amy Klobuchar's staff and have begun the process of setting up direct meetings to strategize best ways of moving to obtain federal support for our new state Water Storage program. I will meet in an on-going capacity with the two senator's staff and will attempt to also meet in person with the senator's themselves when they are in Minnesota in this regard. I will use electronic media communications daily to assess and accelerate progress and do the associated work involved in gaining key support from those decision makers at the federal level regarding the senate. This will involve some travel to and from the Metro and other Minnesota cities on occasion.

I and members of our partnership will also contact key Minnesota U.S. Representatives and their staffs to strategize and identify those in leadership roles who can gain support for and move legislation through the U.S. House. This will require on-going electronic and in person communications. Some of the communications will require travel to the metro and various parts of the state.

I will continue to meet with state agency staff, commissioners, Watershed Districts, SWCD's and local units of Government as well as Tribal Governments to help make the current Water Storage program at the state level a success. This will be by creating a set of parameters and developing a criterion for potential projects of all size and scope. Process will be key in the success of the program and demonstration of the various sizes and types of water storage needs to be completed. This action will create the interest needed to secure federal funding. Parts of this action will also possibly take over a year to complete and demonstrate.

I will provide a first-year report to the LMRWD by 9-1-22 and a final report by the ending date of 7-1-23

Periodic updates will always occur and will be forwarded as the process continues. **Total of on-going tasks \$5,000.00**

Minnesota River Congress/CCMR Water Storage Legislative Initiative
Draft Work Plan-Timeline 9-1-21 to 7-1-23

January 15, 2021, to December 15th, 2022

I and our partnership will have identified high priority funding sources including both existing sources and potential legislative bills that would need to be developed. All the work associated with the legislative process would need to include that of intensive monitoring, assessment and numerous meetings and process requirements such as developing and delivering testimony and consultations with various legislative staff and partners

Total \$3000.00

December 15th, 2022, to July 1st, 2023

I and partners will foster the final phases of advancing legislation or federal program development or modification and monitor and accelerate either existing situation to its final approval and enactment as law. This will also entail a great deal of electronic and in person communications and travel will also be required. Further monitoring and development of program parameters will most likely also be needed in the final phases prior to federal approval.

Total \$2000.00

B. Request from Coalition for a Clean Minnesota River

Administrator Loomis reminded the Board that Scott Sparlin requested \$10,000 over the course of two years to help get legislation passed at the State level for funding of water storage projects in the Upper Minnesota River Basin. Mr. Sparlin was successful this legislative session, but the legislature diluted it as it is not just specific to the Minnesota River and the amount of funding allocated was not what had been hoped for. Now Mr. Sparlin would like to ask the federal government for assistance with the same task because much of the sediment and nutrients from the erosion in the Minnesota River are contributing to the anoxic zone in the Gulf of Mexico.

Manager Raby would like to know what the overall effort over the next two years will be and the funding effort for that.

Mr. Sparlin clarified they got the program established, it is for the Minnesota River basin and the Upper Mississippi River. The legislature did not include the kinds of funds needed to bring this to scale which is what they will be working on over the next couple of years. The money he is asking the LMRWD for is to continue down the path of seeking a federal partnership. The overall budget is dependent upon the work that other organizations are doing so he cannot give a good answer to the question at this time. They are looking at a \$30,000 per year (total of \$60,000) overall budget and will seek a match for the funds.

President Hartmann made a motion to approve the fund request as a match per the previous time. The motion was seconded by Manager Mráz. Upon a vote being taken the motion carried unanimously.

~~C. Appletree Condominium Cost Share Application~~

~~Administrator Loomis stated this is a condominium building in Bloomington; they are in a steep slope overlay zone and have been having issues with erosion behind the building. They have done quite a bit of work to put in drain tile and drain water away from the building to the City storm water system and are looking at landscaping to further ameliorate the erosion issues. They sent in an application for a cost share project and Young Environmental reviewed the application and made some recommendations.~~

~~Ms. Schall-Young noted it is a good application and they are recommending approval. The Board should keep in mind that the project will need a permit so perhaps a portion of the money should go towards that permit application to ensure that they come back and do due diligence.~~

~~Administrator Loomis noted \$7,500 is the maximum amount for a condominium type of request.~~

~~**Manager Raby made a motion to approve the cost share application subject to the applicant applying for and obtaining a permit from the LMRWD. The motion was seconded by Manager Mráz. Upon a vote being taken the motion carried unanimously.**~~

~~D. Modification to LMRWD Board of Managers meeting schedule~~

~~Administrator Loomis noted in April, Staff asked that the Board consider adding a second meeting every month to the schedule to make it a regular meeting and eliminate emergency meeting notices, and now that Ms. Schall-Young's team has a better handle on applications they no longer feel they need the second meeting. They are asking to modify that meeting schedule and eliminate the first Wednesday meeting.~~



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting
Wednesday, July 19, 2023

Agenda Item

Item 4. I. – Authorize Reimbursement for 2022 Cost Share project at 11533 Palmer Circle, Bloomington

Prepared By

Linda Loomis, Administrator

Summary

At the August 2022 meeting of the LMRWD Board of Managers, a Cost Share application was approved for a project located at 11533 Palmer Circle in Bloomington. The project is complete, and the resident is requesting reimbursement.

The project was able to be constructed for less than budget presented in the application, because the Homeowner and her family did all the labor, and she was able to find materials on free sites.

The final report is attached for the Board's information along with receipts for expenses incurred to complete the project. A Cost Share Worksheet has been prepared listing all the costs in the receipts provided and is attached. The original application is also attached.

Attachments

Final Report for Cost Share at 11533 Palmer Circle
Cost Share Worksheet (provided by owner)
Cost Share Worksheet (prepared by LMRWD)
Receipts for materials for to complete Cost Share
Original Application for Cost Share at 11533 Palmer Circle

Recommended Action

Motion to Authorize reimbursement to Margaret Thomsen \$2,500.00 for Cost Share project at 11533 Palmer Circle



LOWER MINNESOTA RIVER
WATERSHED DISTRICT

Lower Minnesota River Watershed District
112 East Fifth Street #102
Chaska, MN 55318

(763) 545-4659

lowermnriverwd.org

Cost Share Final Report

Overview

The Final Report documents the entire grant period and must be within 30 days of project completion. The report should be no longer than six pages. Upon staff approval of the report, you will receive the final reimbursement for your grant. Please note, checks are only issued once per month by the District.

Email your report to Linda Loomis, District Administrator, at naiadconsulting@gmail.com. Contact Linda with questions at 763-545-4659 or by email.

Cost Share Grant Final Report

Project title: Palmer Circle Watershed Awareness Project - "Palmer Prairie"

Year grant was awarded: 2022

Project location: 11533 Palmer Circle, Bloomington, MN 55437

Project manager's name: Peggy Thomsen (Margaret)

Project manager's contact information: Phone/Text: 651-333-0160
Email: peggythomsen@hotmail.com

Time period addressed in the final report: September 2022 - July 2023

How much is the reimbursement request? \$2,500

Who should the reimbursement check be made out to? Margaret A Thomsen

Where should reimbursement check be mailed? 11533 Palmer Circle
Bloomington, MN 55437

1. Summary of Major Activities

Provide a short overview of Cost Share activities. Include dates and time periods during which activities were completed and who was involved.

Nathalie Shanstrom provided landscape design.

September - Peggy and her dad, Ken Thomsen, did hand grading of the front yard according to the plan including, measurement and staking all features, digging two rain gardens, digging dry creek bed with appropriate slope, moving the gutter drain to feed into dry creek bed, removing dirt along driveway to create swale that allows driveway runoff to spill into one rain garden, and lowered soil grade along the curb to reduce runoff into the street.

Fall 2022- Peggy sourced used stone from a "Buy Nothing" group, and Chilton stone from Facebook Marketplace. She and her husband made multiple trips to pickup stone.

Peggy installed dry creek bed stone and chilton stone edging. Grading, dry creek bed and install of Chilton had a cost estimate of \$3,600 but we decided to work with handtools and DIY to save costs and get the project started prior to when professional grading and installation could be scheduled.

Husband, John Graves, purchased and installed edging and mulch path.

Peggy purchased and made two applications of weedylayer - recommended by Organic Bob.

Peggy sourced and picked up plant material from nurseries, and planted with help from her sister.

Prior to first snowfall Peggy ordered prairie seed mix and hand-broadcast seed according to plan.

Spring/ Summer, Peggy installed additional plugs, watered, and weeded which all continues.

2. Project Goals

Describe how the project addressed one or more of the goals of the Cost Share Program:

- Improve water quality or increase the capacity of the watershed to store water
- Preserve, protect, and restore native plant and wildlife habitats
- Protect and preserve groundwater quality and quantity

Restored over 2,900 sq feet of yard into 100% native plants which is already attracting a variety of pollinators and birds.

Two rain gardens and improvements in grading of the entire front yard have significantly reduced runoff which in turn protects groundwater quality. It has been exciting to watch the dry creek bed manage all of the water from the north facing roof into the first rain garden, and to observe driveway runoff being absorbed into the second rain garden when we have had some significant rainfall (seems like only twice so far this summer).

Project has also attracted interest, questions, and compliments from neighbors.

3. Educational Value

Describe how the project provided education value regarding the project's environmental benefits. What education and outreach was done about the project and what were the impacts? How were the results of the project shared and with whom?

Family and friends from near and far have watched with interest the transformation of our front yard. Many have asked questions about our plan, how much does it cost to hire a native landscape architect?, where do you get native plants from?, where do you get native seed mix?, what is that plant?, etc. Shared plans with neighbors on Palmer prior to beginning project.

I have compiled a folder of educational materials on native landscaping and watershed protection to share with those who attend National Night Out I am hosting. Registered our NNO with City of Bloomington and indicated that Palmer Prairie Project will be highlighted.

I belong to a facebook group called "Atlawns of Richfield and Bloomington" where I have posted multiple photos and updates with those 640 members.

I have just recently created a QR code to post in the front yard so people who pass by can take a photo and get access to a website that includes information on the Palmer Prairie. As of this writing the website is not online yet but my savvy neice is helping to finalize that tomorrow.

4. Project Outcomes

- Describe the outcomes of the project.
- Describe what makes you most proud about the project.
- Project is capturing and filtering all water that flows off from the north-facing roof surface.
- Visually appealing and unique to neighborhood.
- Notable increase in pollinators already including hummingbirds, bees, butterflys, dragon flys, caterpillars, and multiple species of birds.

We are most proud of the following:

- Our project had very little negative environmental impact since we only used hand tools for all grading and because we made use of a great deal of re-used/re-purposed materials including rock for dry creek bed, Chilton Stone, and even empty aluminum cans artistically fashioned into durable plant markers.
- I can talk knowledgably about our watershed and native plants with more confidence than I had a year ago.
- Palmer Prairie expenses came in well below the original cost estimates.
- This has been a labor of love. The outdoor work in isolation was theraputic and relaxing. The work with family was fun and strengthened connection.

5. Project Challenges

- Describe any changes that had to be made to original plans due to site conditions, regulatory processes, etc. and any challenges with implementing the project.
- Indicate any ways in which Nine Mile Creek staff could have better assisted you in addressing the challenges.

The beginning of our project implementation was concurrent with the Minnesota State Fair. Organic Bob was busy with other projects and staffing his booth. I became impatient waiting and so with the help of my dad we examined the plans and started the grading ourselves using shovels, pick axe, measuring tape, levels, and rakes. Ultimately this gave us great ability to pay attention to grading details and tweak the levels based on observing rains in the Fall.

I applied Weed Slayer twice as recommended to eliminate grass and weeds in preparation for planting and seeding. Still, this Spring the weeds came back. I have been assured that the native seed and plants will out-compete the weeds and reminded that with native plants, "The first year they sleep (putting down roots), 2nd year they creep, and 3rd year they leap. Our plugs have had excellent survival, the seed is germinating, and we are learning to be patient. Careful weeding has helped and yet we have been cautioned to not weed aggressively now or it can just disrupt the soil and activate more weed germination from the seed bank.

6. Project Longevity

- What will the long-term impact of the project be?
- Describe any follow-up projects that will occur because of the Cost Share grant.

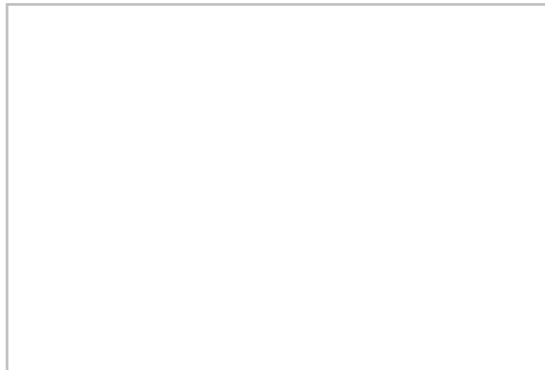
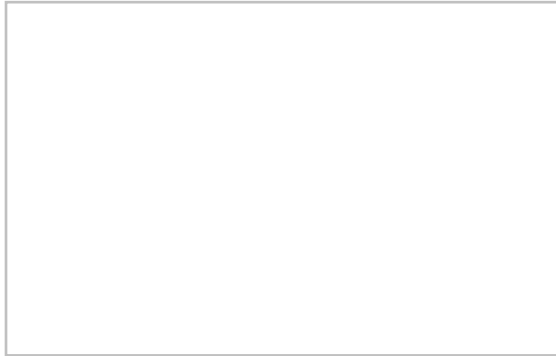
Long term, this grading and planting will continue to protect groundwater from runoff. After plants are fully established the need for supplemental watering will be minimal as the native plants are more drought tolerant than turf-grass. Soil is expected to become less compact and absorb rainfall more quickly as native plants mature so even greater rainfall events can be managed in the future.

A great deal of the Cost Share grant reimbursement will allow me to purchase more native plant material. For this project, I was unable to source some plant material (stout blue-eyed grass, part of Path Rush, and Bird's Foot Violet). I use some of the grant \$ to place a Fall order and plant upon delivery (September). I will continue to watch the weeds and there is a chance that one or two areas may need to be prepped and re-seeded.

Follow-up project is our south slope in the back yard. This is a major undertaking that will require a fair amount of planning. I am not ready to tackle this right now and want to be sure that energy and attention continues to maintain the front Prairie Project before jumping fully into the next project.

7. Photos

- Provide at least three high resolution photos of the project. If you include the pictures in the document file, **also** email the photos as separate jpg files.
- Include a photo of each phase of the project, if applicable (before, during, after).



8. Reimbursement

- How much is the reimbursement request?
\$3,134.54 (\$2,500 was approved)
- What is the total amount of match?
\$ 3,452.00 (see attached Cost Summary Chart)

Submit receipts and/or paid invoices for the reimbursement request and match documentation. Project expenditures without receipts will not be eligible for reimbursement. Copies of paid checks may be asked for with reimbursement requests.







2023 Cost Share Worksheet
11533 Palmer Circle

Labor Costs (Contractors, Consultants, In-Kind Labor)

Service Provider	Task	# Hours	Rate/Hour	Requested Funds from LMRWD	Matching/In-Kind Funds	Total
All labor was in-kind provided by the home-owner		189.5	\$ 18.00		\$ 3,411.00	\$ 3,411.00
Total:				\$ -	\$ 3,411.00	\$ 3,411.00

Project Materials

Material description	Unit Cost	Total # of Units	Requested funds from LMRWD	Matching/In-Kind Funds	Total
Home Depot - Trimmer and string	\$ 221.97		\$ 221.97	\$ -	\$ 221.97
FedEx Office - copies of landscape plan	\$ 5.87		\$ 5.87	\$ -	\$ 5.87
Greener Gardens - motion activated sprinkler to discourage pests	\$ 30.05		\$ 30.05	\$ -	\$ 30.05
Pasque Ecological Design - Garden Consulting	\$ 1,620.00		\$ 1,620.00	\$ -	\$ 1,620.00
All States Organic Supply - Weed Slayer Household Kit	\$ 124.90		\$ 124.94	\$ -	\$ 124.94
Prairie Restoration - plant material	\$ 201.61		\$ 201.57	\$ 186.52	\$ 388.09
Morning Sky Greenery - Lawn Mix seed	\$ 78.50		\$ 78.50	\$ -	\$ 78.50
Darby Conner - chilton garden border stone	\$ 250.00		\$ 217.10	\$ 32.90	\$ 250.00
Twin City Seed CO. - oat seed	\$ 17.48		\$ -	\$ 17.48	\$ 17.48
Prairie Restorations - Plant material	\$ 187.50		\$ -	\$ 187.50	\$ 187.50
Twin City Seed Co. - buffalo grass seed and blanket	\$ 55.16		\$ -	\$ 55.16	\$ 55.16
Prairie Moon Nursery - Bur Oak	\$ 18.28		\$ -	\$ 18.28	\$ 18.28
Prairie Restorations - Plant material	\$ 261.19		\$ -	\$ 261.19	\$ 261.19
Amazon - Metal edging	\$ 259.49		\$ -	\$ 259.49	\$ 259.49
Prairie Moon Nursery - Seeds	\$ 24.73		\$ -	\$ 24.73	\$ 24.73
Gertens - Mulch	\$ 235.08		\$ -	\$ 235.08	\$ 235.08
Total:	\$ 3,591.81				
Total:			\$ 2,500.00	\$ 1,278.33	\$ 3,778.33

Total Requested Funds from LMRWD*:	\$ 2,500.00 (A)
Total Matchin/In-Kind Funds:	\$ 4,689.33 (B)
Project Total:	\$ 7,189.33 (C)

*Please note: total requested funds (A) cannot be more than 50% of the Project Total (C)

Cost Summary of Palmer Circle Watershed Awareness Project - "Palmer Prairie"

Material

Item	Supplier	Detailed Description	# of Hours	\$ per Hour	Reimbursement Request from LMRWD (\$)	Matching in Kind (\$)	Total Cost (\$)
Path Mulch Purchase	Gertens	Purchase of Western Red Cedar Mulch for path			64.11		64.11
Path Mulch Purchase	Gertens	Purchase of Western Red Cedar Mulch for path			42.74		42.74
Path Mulch Purchase	Gertens	Purchase of Western Red Cedar Mulch for path			128.23		128.23
Tree Purchase	Prairie Moon Nursery	Purchased Bur Oak tree + shipping			18.28		8.00
Seed Purchase	Prairie Restorations	Purchased prairie dropseed (Sporobolus heterolepis)			201.61		187.50
Plant Plugs Purchase	Prairie Restorations	Purchase of various prairie plant plugs			261.19		261.19
Grass Purchase	Twin City Seed Company	Purchase of Buffalo Grass			55.16		55.16
Oats Purchase	Twin City Seed Company	Purchase of oats cover crop			17.48		17.48
Prairie Seed Purchase	Prairie Moon Nursery	Purchase of various prairie seed for winter sowing			24.73		24.73
Seed Purchase	Morning Sky Greenery	Purchase of Blue Gamma and Buffalo grass seed			78.50		78.50
Copy Service	FedEx	Made working copies of landscape plan			5.87		5.87
Weed Slayer Purchase	All states Organic Supply	Purchase of no toxic weed killer			124.90		124.90
Trimmer Purchase	Home Depot	Purchase of trimmer to maintain prairie			189.00		189.00
Trimmer Spools Purchase	Home Depot	Purchase of additional trimmer string			32.97		32.97
Sprinkler Purchase	Greener Gardens	Purchase of Light Warrior garden water sprinkler			30.05		30.05
Chilton Stone Purchase	Darby Annie	Purchase of Chilton Stone for landscape edging			250.00		250.00
Liquid Fence Purchase		Purchase anti deer and rabbit Liquid Fence				23.00	
Landscape Consulting	Pasque Ecological Design	Provided a landscape design of of the front yard	18	90	1620.00		1620.00

Labor

Item	Performed by	Detailed Description	# of Hours	\$ per Hour	Reimbursement Request from LMRWD (\$)	++ in Kind (\$)	Total Cost (\$)
Mark and Measuring	Ken & Peggy Thomsen	Mark and measure yard prior to grading and other features	8	18		144.00	144.00
Yard Grading	Ken & Peggy Thomsen	Graded yard to driect water from driveway and downspout to rain gardens	45	18		810.00	810.00
Rain Gardens	Ken & Peggy Thomsen	Dig/form 2 rain gardens	12	18		216.00	216.00
Dry Creek Bed Rock	Peggy Thomsen & John Graves	Transportation of dry creek bed rock	5	18		90.00	90.00
Dry Creek Bed	Ken & Peggy Thomsen	Dig/form and install rock in dry creek bed	8	18		144.00	144.00
Path Edging	John Graves	Install path edging	4	18		72.00	72.00
Path Mulch	John Graves	Transportation to purchase mulch	3	18		54.00	54.00
Path Mulch	John Graves	Fill path with Western Red Cedar Mulch	2	18		36.00	36.00
Chilton Stone	John Graves & Peggy Thomsen	Source and transport Chilton Stone	4	18		72.00	72.00
Stumps	Ken & Peggy Thomsen	Remove 3 stumps from yard	6	18		108.00	108.00
Plant Sourcing	Peggy Thomsen	Source prairie plants via internet searches	4	18		72.00	72.00
Winter Sowing	Peggy Thomsen	Planting containers for winter germination	12	18		216.00	216.00
Grass Seeding	Peggy Thomsen	Seed Blue Gamma and Buffalo Grassareas	2	18		36.00	36.00
Mulch	Peggy Thomsen	Mulch pnated areas	1	18		18.00	18.00
Tree and Shrubs	Peggy Thomsen	Plant oak burr and shrubs (9)	8	18		144.00	144.00
Seed	Peggy Thomsen	Drive to Prairie Restoration to pick up seed	2	18		36.00	36.00
Plugs	Peggy & Patty Thomsen	Plant 151 plugs of priarie plants	6	18		108.00	108.00
Pussytoes	Peggy Thomsen	Collect prairie pussytoes and plant	1.5	18		27.00	27.00
Watering	Peggy Thomsen	Watering set-up and hand watering most areas	12	18		216.00	216.00
Weeding	Peggy Thomsen	Hand weeding to allow prairie plant growth to thrive	24	18		432.00	432.00
Plant Signs	Patty Thomsen	Making identifying plant signs for prairie garden	5	18		90.00	90.00
Bench	Peggy Thomsen	Install cement bench along side of path	1	18		18.00	18.00
Liquid Fence	Peggy Thomsen	Applying Liquid Fence to ward off animals	3	18		54.00	54.00
Weed Slayer	Peggy Thomsen	Applied Weed Slayer (2x) weed killer	6	18		108.00	108.00
Website	Danielle Trajano	Design website and create QR code to access project info	3	18		54.00	54.00
National Night Out (NNO)	Peggy Thomsen	Organize neighborhood NNO and plan to educate neighbors regarding the benefits of a native plant prairie yard	2	18		36.00	36.00
					\$3,144.82	\$3,434.00	\$6,531.43
					Reimbursement Request from LMRWD (\$)	Matching in Kind (\$)	Total Cost (\$)

Trimmer + String
for maintenance.



**How does
get more done.**

400 W AMERICAN BLVD
BLOOMINGTON, MN 55420 952-881-7020

2805 00051 44647 05/15/23 12:04 PM
SALE SELF CHECKOUT

021496025568 PENN OHERB <A> 2.97
DILL LONG ISLAND MAMMOTH
041530558487 VEG SEED <A> 1.69
VMI HERB, THYME, COMMON
041530613834 VEG SEED <A> 1.69
VMI HERB ROSEMARY SEED
046396035219 RY.0805PK <A> 32.97
RYOBI .080 SPOOL 5PK
046396029072 RY18VHPBST <A> 189.00
RYOBI 18V HP BRUSHLESS TRIMMER

SUBTOTAL 228.32
SALES TAX 17.18
TOTAL \$245.50

XXXXXXXXXXXX3465 MASTERCARD

USD\$ 245.50

AUTH CODE 03074B/7512853

Chip Read

AID A0000000041010

Mastercard

2805 05/15/23 12:04 PM



2805 51 44647 05/15/2023 6/25

RETURN POLICY DEFINITIONS
POLICY ID DAYS POLICY EXPIRES ON
A 1 90 08/13/2023

DID WE NAIL IT?

Take a short survey for a chance to WIN
A \$5,000 HOME DEPOT GIFT CARD

Opine en español

www.homedepot.com/survey

User ID: H89 92388 89634
PASSWORD: 23265 89583

Entries must be completed within 14 days
of purchase. Entrants must be 18 or
older to enter. See complete rules on
website. No purchase necessary.

FedEx Office

WORKING COPIES OF PLAN

FedEx Office is your destination
for printing and shipping.

9707 Lyndale Ave S
Bloomington, MN 55420-4232
Tel: (952) 885-0000

8/9/2022

6:52:07 PM CST

Team Member: Matthew D.

SALE

CLR 1S 11x17 Wht 2 @ 1.4800 T
000197 Reg. Price 1.48
FS Surcharge 1 @ 2.5000 T
052238 Reg. Price 2.50
Regular Total 5.46
Discounts 0.00
Total 5.46

Sub-Total 5.46
Tax 0.41
Deposit 0.00
Total 5.87

***** PURCHASE *****
APPROVED

Total: \$5.87
Card Type: MASTERCARD
Card Entry: CHIP
Acct #: *****3465
Approval Code: 052388
***** PURCHASE *****

1/17/2023 4:44 PM
Store: 1

Sales Receipt #31341
Workstation: 2



**GREENER
GARDENS**

Thank you for shopping with us!

Cashier: John

Item Name	Qty	Price	Ext Price
Light Warrior 1 cu ft	1	\$27.95	\$27.95 T
85			

Local Sales Tax Subtotal: \$27.95
7.525 % Tax + \$2.10
RECEIPT TOTAL: \$30.05

Cash: \$30.05

matia-Activated
Sprinkler that scares
away critters.

Greener Gardens
6412 Penn Ave S
Richfield, MN 55423
612.367.4503
www.GreenerGardensMN.com



31341

Pasque Ecological Design

8516 Irwin Rd.
Bloomington MN 55437
Phone 612 868-8033
Email pasquedesign@gmail.com

INVOICE

Invoice #293
Date: 08/15/2022

To:
Peggy Thomsen and John Graves
11533 Palmer Circle, Bloomington, MN 55437
Bloomington, MN 55437

For: Garden consulting

Date	Description	Qty	Unit	Unit Price	Line Total
Services					
2-May	Follow up email	0.5	h	\$90.00	\$45.00
23-Jun	Measure, draw existing condition/base to scale	2.5	h	\$90.00	\$225.00
11-Jul	Draw base to scale, gather precedents	0.75	h	\$90.00	\$67.50
12-Jul	Precedent images, start plant list	0.5	h	\$90.00	\$45.00
3-Aug	Plan and phone call	0.5	h	\$90.00	\$45.00
4-Aug	Plan, meet and measure	2.25	h	\$90.00	\$202.50
5-Aug	Plan and planting design	2	h	\$90.00	\$180.00
6-Aug	Draft plan electronically, type plant list, label plan	4	h	\$90.00	\$360.00
9-Aug	Meet with Bob re: cost estimate, meet with Peggy and John, start cost estimate	2.5	h	\$90.00	\$225.00
10-Aug	Plant quantities, cost estimate	2.5	h	\$90.00	\$225.00
		18		Total	\$1,620.00

Make all checks payable to Pasque Ecological Design

Accounts subject to a service charge of 1% per month.

JOHN R GRAVES
MARGARET A THOMSEN
13599 HARWELL PATH
APPLE VALLEY, MN 55124-5006

17-2/910 1746

DATE Aug 20, 2022

PAY TO THE ORDER OF Pasque Ecological Design \$ 1,620.00

☒ Sixteen hundred and twenty and no/100 DOLLARS

usbank. #293

MEMO Garden Consulting Margaret A. Thomsen

⑆09⑆000022⑆⑆0478⑆73546A⑆⑆1746

States Organic Supply order has been received!

es Organic Supply <info@allstatesorganicsupply.com>

7/2022 1:13 PM

gythomsen@hotmail.com <peggythomsen@hotmail.com>



ALL STATES
ORGANIC SUPPLY

Thank you for your order

Hi Margaret,

Just to let you know — we've received your order #1007, and it is now being processed:

[Order #1007] (August 10, 2022)

Product	Quantity	Price
Weed Slayer Household Kit	1	\$99.99
Subtotal:		\$99.99
Shipping:		\$24.91 via Ground (UPS)
Tax:		\$0.00
Payment method:		Credit Card
Total:		\$124.90

Billing address

Margaret Thomsen
Palmer Circle Watershed Awareness
11533 Palmer Circle
Bloomington, MN 55437
6513330160

Shipping address

Margaret Thomsen
Palmer Circle Watershed Awareness
11533 Palmer Circle
Bloomington, MN 55437
6513330160

Prairie Restorations, Inc.

31646 128th Street
Princeton MN 55371
United States

Payment Method
MasterCard x3465

Receipt

#22366
9/7/2022

Qty	Item	Rate	Amnt
30	SHE 4in-100	\$6.25	\$187.50
Subtotal			\$187.50
Tax			\$14.11
Shipping			\$0.00
Amount Due			\$201.61

Signature



22366

Visit our website at www.prairieresto.com

Morning Sky Greenery

44804 East Highway 28
Morris, MN 56267
Ph 320-795-6234
info@morningskygreenery.com

Invoice

Date	Invoice #
6/27/2023	23-507

Bill To

Thomsen, Margaret
11533 Palmer Circle
Bloomington, MN 55437

PAID

Terms	P.O. Number	Ship/Pickup	Project
		6/27/2023	

Item Code	Description	Quantity	Price Each	Amount
Seeds S&H	Order #38342 Western Laid-Back Lawn Mix Shipping & Handling	1	54.95 18.50	54.95T 18.50T

Subtotal \$73.45

Sales Tax (6.875%) \$5.05

Total \$78.50

Payments/Credits \$-78.50

Balance Due \$0.00

Thank you for your order.
We appreciate your business.

Date: Friday, September 2, 2022

Seller: Dandy Annie 450 West Hatch Ave, St. Paul

Buyer: Margaret Thomsen

Payment: \$250.00

Product: Large Pallet of Natural
Chilton Garden Border Stone

Dandy Corner
Pay't Received 651-208-5022
250.00 Sept. 2 2022

6/22/22, 11:23 AM

Twin City Seed Co.

Twin City Seed Co.

This is to certify that the herein-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

This Shipping Order

must be legibly filled in, in Ink, in Indelible Pencil, or in Carbon, and retained by the Agent

Shipper No. _____

Carrier No. _____

Date 6/22/22

On Collect on Delivery shipments, the letters "COD" must appear before consignee's name -- or as otherwise provided in Item 430, Sec. 1

FROM: TWIN CITY SEED CO. 952-944-7105

Street 7265 Washington Ave. So.

Origin Edina, MN

Zip Code 55439-2403

U.S. DOT Hazmat Reg. Number

U.S. DOT Hazmat Reg. Number

U.S. DOT Hazmat Reg. Number

U.S. DOT Hazmat Reg. Number

U.S. DOT Hazmat Reg. Number

U.S. DOT Hazmat Reg. Number

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U.S. DOT Hazmat Reg. Number



PRAIRIE MOON NURSERY

32115 Prairie Lane
Winona, MN 55987
Toll Free 866-417-8156 Phone 507-452-1362
www.prairiemoon.com



Order

Print Date	Page	Number
04/07/23	1	2303626300

Bill To

PEGGY THOMSEN
11533 PALMER CIR
BLOOMINGTON MN 55437-3434
US

Ship To

PEGGY THOMSEN
11533 PALMER CIR
BLOOMINGTON MN 55437-3434
US

Account	Ordered	Office Use	PO#	Telephone	Operator	Terms
379769	02/04/23	01/12	409279	651.333.0160	Web	Credit Card

Line	Item#/Description	UM	Qty	Ship	Price	Total
	QUE06T-R	Root	1		8.00	8.00
	Quercus macrocarpa - Bur Oak					
	Bare Root Plants: Bare Root Plants					
	Lot: PM5003W Qty: 1					
	OFFER	Each	1		0.00	0.00
	NEW CUSTOMER OFFER - save 10% on your next order of \$50 or more. Use code CHOOSENATIVES at checkout					
	Free Gift 1 with Promotion on Order					

Merchandise	Shipping	Add Amt	Other	Credits	Tax	Order Total
8.00	9.00	0.00	0.00	0.00	1.28	18.28

Thank you for your order. Please inspect your package carefully.

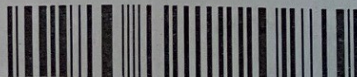
Paid Amount 18.28

Balance on Order 0.00

PEGGY THOMSEN
#2303626300 Pkg# 3 1 56
MAIL

PEGGY THOMSEN
#2303626300 Pkg# 2 1 56
MAIL

PEGGY THOMSEN
#2303626300 Pkg# 1 1 56
MAIL



Prairie Restorations, Inc.

31646 128th Street
Princeton MN 55371
United States

Receipt

#22367
9/7/2022

Payment Method
MasterCard

Qty	Item	Rate	Amnt
1	2022 Wild Lupine 100 1a	\$4.00	\$4.00
1	LIAS C60-100	\$11.50	\$11.50
1	LIAS C60-100	\$11.50	\$11.50
1	LIAS C60-100	\$11.50	\$11.50
1	BAAL 1gal-500P	\$15.00	\$15.00
1	BAAL 4in-500	\$6.25	\$6.25
1	BAAL 4in-500	\$6.25	\$6.25
1	AMALN 'REG'1gal-500B	\$21.00	\$21.00
1	AMALN 'REG'1gal-500B	\$21.00	\$21.00
1	GETR C60-421	\$11.50	\$11.50
1	GETR C60-421	\$11.50	\$11.50
1	GETR C60-421	\$11.50	\$11.50
1	AMLAE 2gal-500B	\$37.00	\$37.00
1	JTE C60-115	\$11.50	\$11.50
1	JTE C60-115	\$11.50	\$11.50
1	JTE C60-115	\$11.50	\$11.50
1	JTE C60-115	\$11.50	\$11.50
1	JTE C60-115	\$11.50	\$11.50
1	JTE C60-115	\$11.50	\$11.50
1	ANNE 4in-110	\$6.25	\$6.25

Subtotal \$243.25

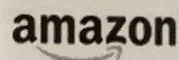
Tax \$17.94

Shipping \$0.00

Amount Due \$261.19

on.com <ship-confirm@amazon.com>

Mon, Sep 12,
2022, 6:13 PM



Shipping Confirmation

Hello john,

"11" of "Pure Garden 50-197..." shipped. Your items will be delivered in 2 separate packages.

Details

Order #113-3984133-1161819

Arriving:

Wednesday, September 21, 2022

Shipped to:

John R Graves
11533 PALMER CIR...

Track your packages

Total Before Tax: \$241.34
Tax Collected: \$18.15
Shipment Total: \$259.49

Order details

Return or replace your items in [Your Orders](#).

We hope to see you again soon.
Amazon.com

Unless otherwise noted, items sold by Amazon.com LLC are subject to sales tax in select states in accordance with the applicable laws of that state. If your order contains one or more items from a seller other than Amazon.com LLC, it may be subject to state and local sales tax, depending upon the seller's business policies and the location of their operations. Learn more about [tax and seller information](#).

Your invoices can be accessed here: [113-3984133-1161819](#)

This email was sent from a notification-only address that cannot accept incoming email. Please do not reply to this message.

Signature



22367

THANK YOU FOR SHOPPING AT
Gertens
5500 Blaine Avenue
Inver Grove Heights, MN 55076
(651) 450-1501

1/22 8:47AM 3116 201 SALE

10 EA \$3.99 EA S
ERN RED CEDAR MULCH \$39.90
lar Price: 6.99
Saved : 30.00

TOTAL:\$ 39.90 TAX:\$ 2.84
TOTAL:\$ 42.74
BC AMT:\$ 42.74

ARD#: XXXXXXXXXXXX3820
*****0886 TID:***3622
: 809074 AMT:\$ 42.74
reference #:096291 Bat#

orizing Network: VISA

actless

TYPE:VISA EXPR: XXXX
: A0000000031010
: 0000000000
: 06010A03A00000
: 00
: Issuer
: No CVM
: VISA CREDIT
: 02A8
: BBB405F71E22EBA0
D/ValCode: 541773

card USD\$ 42.74



JRNL#T96291/1 <<==
CUST NO:*5

THANK YOU VISA CARDHOLDER
FOR YOUR PATRONAGE

: CASH CUSTOMER

Customer Copy

SAVED \$ 30.00 BY SHOPPING AT
Gertens

OF PURCHASE REQUIRED FOR RETURNS

THANK YOU FOR SHOPPING AT
Gertens
5500 Blaine Avenue
Inver Grove Heights, MN 55076
(651) 450-1501

09/09/22 10:10AM 3116 202 SALE

B135 30 EA \$3.99 EA S
WESTERN RED CEDAR MULCH \$119.70
Regular Price: 6.99
You Saved : 90.00

SUB-TOTAL:\$ 119.70 TAX:\$ 8.53
TOTAL:\$ 128.23
BC AMT:\$ 128.23

BK CARD#: XXXXXXXXXXXX3820
MID:*****0886 TID:***3622
AUTH: 019001 AMT:\$ 128.23
Host reference #:072505 Bat#

Authorizing Network: VISA

Contactless

CARD TYPE:VISA EXPR: XXXX
AID : A0000000031010
TVR : 0000000000
IAD : 06010A03A00000
TSI :
ARC : 00
MODE : Issuer
CVM :
Name : VISA CREDIT
ATC : 02A9
AC : DB47055C32C3D1C8
TxnID/ValCode: 541906

Bank card USD\$ 128.23



==>> JRNL#A72505/1 <<==
CUST NO:*5

THANK YOU VISA CARDHOLDER
FOR YOUR PATRONAGE

Acct: CASH CUSTOMER

Customer Copy

YOU SAVED \$ 90.00 BY SHOPPING AT
Gertens

-PROOF OF PURCHASE REQUIRED FOR RETURNS

THANK YOU FOR SHOPPING AT
Gertens
5500 Blaine Avenue
Inver Grove Heights, MN 55076
(651) 450-1501

09/09/22 8:39AM 3116 201 S

B135 15 EA \$3.99 E
WESTERN RED CEDAR MULCH \$
Regular Price: 6.99
You Saved : 45.00

SUB-TOTAL:\$ 59.85 TAX:\$
TOTAL:\$
BC AMT:\$

BK CARD#: XXXXXXXXXXXX3820
MID:*****0886 TID:***3622
AUTH: 809093 AMT:\$
Host reference #:072395 Bat#

Authorizing Network: VISA

Contactless

CARD TYPE:VISA EXPR: XXXX
AID : A0000000031010
TVR : 0000000000
IAD : 06010A03A00000
TSI :
ARC : 00
MODE : Issuer
CVM :
Name : VISA CREDIT
ATC : 02A7
AC : 02120F664B0526C3
TxnID/ValCode: 541762

Bank card USD\$ 64.11



==>> JRNL#A72395/1 <<=
CUST NO:*5

THANK YOU VISA CARDHOLDER
FOR YOUR PATRONAGE

Acct: CASH CUSTOMER

Customer Copy

YOU SAVED \$ 45.00 BY SHOPPING AT
Gertens

-PROOF OF PURCHASE REQUIRED FOR RETURNS



PRAIRIE MOON NURSERY

32115 Prairie Lane
Winona, MN 55987
Toll Free 866-417-8156 Phone 507-452-1362
www.prairiemoon.com



Order

Print Date	Page	Number
02/06/23	1	2303520900

Bill To

PEGGY THOMSEN
11533 PALMER CIR
BLOOMINGTON MN 55437-3434
US

Ship To

PEGGY THOMSEN
11533 PALMER CIR
BLOOMINGTON MN 55437-3434
US

Count	Ordered	Office Use	PO#	Telephone	Operator	Terms
9769	02/04/23	02/04	409279	651.333.0160	Web	Credit Card

Item#/Description	UM	Qty	Ship	Price	Total
AST54F-S-P Astragalus crassicaupus - Ground Plum Seeds: Packet Lot TW4136C	Packet	1		3.00	3.00
DOD04F-S-P Dodecatheon meadia - Midland Shooting Star Seeds: Packet Lot PX5012C	Packet	1		3.00	3.00
SIS01F-S-P Sisyrinchium angustifolium - Stout Blue-eyed Grass Seeds: Packet Lot PM2322B	Packet	1		3.00	3.00
AST20F-S-P Symphyotrichum oblongifolium - Aromatic Aster Seeds: Packet Lot HF3044B	Packet	1		3.00	3.00
JUN10G-S-P Juncus tenuis - Path Rush Seeds: Packet Lot HF2978T	Packet	1		3.00	3.00
ANE08F-S-P Anemone patens var. wolfgangiana - Pasque Flower Seeds: Packet Lot TW4668C	Packet	1		3.00	3.00

Merchandise	Shipping	Add Amt	Other	Credits	Tax	Order Total
18.00	5.00	0.00	0.00	0.00	1.73	24.73

Thank you for your order. Please inspect your
package carefully.

Paid Amount 24.73

Balance on Order 0.00

PEGGY THOMSEN
#2303520900 Pkg# 6 1 56
MAIL

PEGGY THOMSEN
#2303520900 Pkg# 5 1 56
MAIL

PEGGY THOMSEN
#2303520900 Pkg# 4 1 56
MAIL





LOWER MINNESOTA RIVER
WATERSHED DISTRICT

Cost Share Grant Application 2022

Application type (check one) ☒ Homeowner ☐ Non-profit - 501(c)(3) ☐ School

☐ Business or corporation ☐ Public agency or local government unit

Project type (check all that apply) ☒ Raingarden ☐ Vegetated Swale ☐ Infiltration Basin

☐ Wetland restoration ☐ Buffer/shoreline restoration ☐ Conservation practice ☒ Habitat restoration

☐ Pervious hard surface ☒ Other Grading to capture/direct water to raingard
from impervious surface

Applicant Information

Name of organization or individual applying for grant (to be named as grantee):

Margaret Thomsen (Peggy)

Address (street, city and ZIP code):

11533 Palmer Circle, Bloomington, MN 55437

Phone: 651-333-0160 Email address: peggythomsen@hotmail.com

Primary Contact (if different from above)

Name of organization or individual applying for grant (to be named as grantee):

Address (street, city and ZIP code):

Same as above

Phone: _____ Email address: _____

Project location

Address (street, city and ZIP code):

11533 Palmer Circle

Property Identification Number (PID)

3002724310057

Property owners:

JR Graves & M A Thomsen

Project Summary

Title Palmer Circle Watershed Awareness

Total project cost \$10,000 approx. Grant amount requested \$2,500.00

Estimated start date Sept 1, 2022 Estimated completion date June 30, 2023*

Is project tributary to a water body? ☐ No, water remains on site ☒ Yes, indirectly ☐ Yes, directly adjacent

project requires fall seeding.
* depending on plant availability
should be okay!! ☺

Is this work required as part of a permit? ☒ No ☐ Yes
(If yes; describe how the project provides water quality treatment beyond permit requirement on a separate page.)

Project Details

Checklist To be considered complete the following must be included with the application.

- | | |
|--|---|
| <input checked="" type="checkbox"/> location map (A) | <input checked="" type="checkbox"/> project timeline (D) |
| <input checked="" type="checkbox"/> site plan & design schematic (B) | <input checked="" type="checkbox"/> proof of property ownership (E) |
| <input checked="" type="checkbox"/> contracted items (C) | <input checked="" type="checkbox"/> plant list & planting plan (if project includes plants) (F) |

Project description Describe the project, current site conditions, as well as site history, and past management. Note any potential impacts to neighboring properties.

We are new owners of this property as of January 2021. In 1960 a home was built on this lot tucked into the river bluff as part of the Southwood Terrace 6th Addition. Owner of the property from the mid-1980s through 2020 made "improvement" which included the addition of fill and created increased runoff and to the south (towards Coleman Lake) and accelerated erosion. Evidence of erosion includes retaining walls failing and fencing that is partially buried along the southern portion of the property. Significant neglect was evident including unchecked growth of invasive plants: buckthorn, garlic mustard, Japanese Knotweed and possibly others yet to be identified.

Erosion has created problems for the property owner directly to the south. Unchecked invasive species are found on adjacent properties.

What are the project objectives and expected outcomes? Give any additional project details.
Project goal is to protect the bluff, reduce runoff and erosion, and to be a source of inspiration to area property owners who are also stewards of this bluff area and the watershed district.

- Reduce runoff
- Restore native plants
- Eliminate invasive plants
- Soil stabilization
- Restore habitat for area wildlife (birds, insects, etc.)

For greater detail refer to attached (I).

Which cost share goals does the project support? (check all that apply)

- | | |
|---|---|
| <input checked="" type="checkbox"/> improve watershed resources | <input checked="" type="checkbox"/> foster water resource stewardship |
| <input checked="" type="checkbox"/> increase awareness of the vulnerability of watershed resources | |
| <input checked="" type="checkbox"/> increase familiarity with and acceptance of solutions to improve waters | |

How does the project support the goals you checked?

- grading to reduce runoff
- rain gardens

Refer to attached (G) project details.

I

Project Details

The "Palmer Circle Watershed Awareness" project will be implemented to capture and filter runoff and will bring awareness of the vulnerability of our watershed resources to the neighbors and homeowners of the south-most area of Bloomington who own property directly and indirectly draining into the Minnesota River. The project will employ grading and planting solutions that protect watershed resources by water capture and filtration. The project will be attractive and well-maintained to capture attention and educate in hopes that neighbors in this bluff area will consider making improvements on their properties to protect our water resources.

Property Overview & Past Management

We purchased this condemned property in January 2020. This property has compacted lawn. There is evidence of erosion and runoff. In 2021 we installed a rain garden in the backyard area within 40 feet or so at the rear of the house. This significantly reduced runoff to the steepest area of the south slope. This 2021 project was completed at 100% homeowner expense with reclaimed materials and with homeowner labor.

Runoff from 11533 Palmer Circle spills into Palmer Circle and runs west to Palmer Road where the street slopes to the south. The water enters storm drains at the lower section of Palmer Road. When there is increased rainfall the runoff crosses Palmer Road where Palmer Road turns to the left at the bottom of the hill. All of these storm drains deliver runoff directly into the swamp area leading straight to Coleman Lake and ultimately to the Minnesota River. Sadly, the grade of Palmer Road is so steep that street maintenance crews use a significant amount of road salt or other treatments that are ultimately washed into the river by runoff each spring thaw. Water also sheds from the west onto neighboring properties and ultimately follows downhill to the same storm drains.

Front Yard (North) - the focus of this grant application.

East Side Yard - 2021 removed buckthorn, regraded to capture rainwater and installed native plants including bee lawn. Work completed by us with no grant funding.

West Side Yard - Presently has erosion problems caused by downspout from the roof sending water to the side and south towards the bluff line. This proposed plan redirects runoff away from the bluff to be filtered and absorbed by the front yard water management features.

Back Yard (South) - This portion of the property is the more complex area including steep grade, significant erosion concerns, unstable soil, drainage towards Coleman Lake and Minnesota River, invasive species, power lines that are overgrown (Xcel Energy has scheduled line maintenance along the south line of our property for August 2022). Back yard will be the focus of restoration in 2023 after we have learned from this Phase 1 project in 2022.

Justification for Completion of Front Yard First

We will complete front yard restoration and water management next because:

- it is important to capture sediment and reduce runoff that drains to Coleman Lake and the MN River,
- improvements will reduce runoff that contributes to accelerated runoff and erosion,
- learning from the front yard phase will be an educational step to help as we plan for the more complex problems on the steep slope to the south,
- South slope will be restored *after* Xcel has completed maintenance that will disrupt soil and plant material on the steep slope,
- the front yard water management plan is more visible and educational for the neighborhood, and
- because my husband needs to see improvements in the front yard soon or he will buckle and simply install sod without regard for water protection. (Insert sad face!)

G

Project Details

When the Palmer Circle Watershed Awareness Project is Complete

- A dry creek bed will carry roof/gutter runoff into a rain garden redirecting water that presently runs south and over the bluff.
- Front yard will be regraded to absorb and filter driveway runoff into the yard and a second rain garden instead of allowing driveway runoff to spill into the street
- Native plants will improve soil quality to increase absorption rather shedding water into the storm drains.
- No yard chemicals will be used that would be carried towards Coleman Lake and the Minnesota River.
- Runoff that currently sheds into neighboring properties to the west will be captured and directed to dry creek bed and rain garden.
- Native plants will require significantly less water than the present turf grass.
- Neighbors will be attracted by the innovative landscaping installation and potentially be inspired to learn how to install water-protective features on their property.
- Native plants will improve the eco-system for beneficial pollinators and wild life.

H

Current Runoff - Homeowner Calculations

Impervious Surfaces	Square Feet	Gallons/Year
North-facing Roof	700	13,090
Driveway	1165	21,785
Garage	682	12,753
Front Steps and Sidewalk	120	2,244
Compacted Lawn	2992	41,403
TOTAL estimated runoff/year in gallons		91,275

The calculation above is only for the front yard and west side yard that are the target of this grant application for 2022.

Formulas used are based on Dakota County Landscaping for Clean Water Intro Course. Assumptions are 30" annual precipitation, 100% runoff for impervious surfaces, 74% runoff rate for compacted lawn.

1000 square feet x 30/12 feet rain/year = 2500 cubic feet of water

2500 cubic feet x 7.48 gallons per cubic foot = 18,700 gallons/year

Example - According to this formula:

- each 1000 square feet of impervious surface results in 18,700 gallons of runoff per year.
- each 1000 square feet of compacted lawn results in 13,838 gallons of runoff per year.

D

Project TimeLine

As soon as we have a signed grant agreement work will begin in the following order:

- Remove turf lawn and weeds
- Grading yard for rain gardens, capture of driveway runoff, and dry creek bed
- Install mulch path and edging
- Seed cover crop to hold soil
- power rake and sow native seed mixes after cover crop is mowed
- Source and pick up plant material from nurseries
- Install plants, mulch and temporary protective fencing
- plan for and produce materials for QR code, social media education, and 2023 National Night Out
- Expected completion by June 30, 2023 . . . although maintenance will continue and we will need to be patient to give plants time to become established.

(C) 1 of 2

Labor Costs

Service provider	Task	# hours	Rate/hour	Requested funds from LMRWD	Matching /in kind funds	Total cost
Homeowner	Install mulch path	8	\$18.00		\$144.00	\$144.00
Homeowner	Remove existing juniper	<i>already completed.</i>				
Organic Bob	Grade garden to direct runoff from driveway and roof to raingardens, dig raingarden and dry creek, install dry creek					\$3,200.00
Organic Bob	Sow cover crop, after it grows and is mowed, power rake and sow native seed mixes					\$300.00
Organic Bob	Power rake and dormant sow prairie grass after cover crop is mowed					\$500.00
Organic Bob	Install stone edging					\$400.00
Homeowner	Source and pick up plants from nurseries	4	\$18.00		\$72.00	\$72.00
Homeowner	Shop for oak trees and plant oak trees	2	\$18.00		\$36.00	\$36.00
Homeowner	Mow cover crop very short when it's a few inches tall	1	\$18.00		\$18.00	\$18.00
Homeowner	Install plants, mulch, fence	30	\$18.00		\$540.00	\$540.00
Homeowner	Spray Liquid Fence on Forbs 3x, 1 week apart	1.5	\$18.00		\$27.00	\$27.00
Pasque Ecological Design	Design front yard, cost estimate	16	\$90.00		\$1,440.00	\$1,440.00
Pasque Ecological Design	Lay out plants, spray paint location of raingarden, assist with sourcing plants and materials	4	\$90.00		\$360.00	\$360.00
Total				\$0.00	\$2,637.00	\$7,037.00

Material Costs

Project Materials	Unit cost	Units	Total # units	Requested Funds	Matching Funds	Total cost
Mycorrhizae and compost tea application	125		1	\$125.00		\$125.00
hoses and sprinkler	50		4	\$200.00		\$200.00

C 2 of 2

Plugs	2	each	986	\$1,972.00		\$1,972.00
4" native plants	5	each	30	\$150.00		\$150.00
2 GAL Oak Tree	30	each	1	\$100.00		\$100.00
Serviceberry Shrubs	25	each	3	\$75.00		\$75.00
Serviceberry Tree	25	each	1	\$25.00		\$25.00
Chokeberry Shrubs		each	3	\$0.00		\$0.00
Black Currant shrubs	20	each	3	\$60.00		\$60.00
Stone edging	16	lf	50	\$800.00		\$800.00
Dry Creek materials and bridge stone	1	lump sum	50	\$50.00		\$50.00
2" Cedar mulch for plug groups and oak tree, 4" mulch for path	65	cy	7	\$455.00		\$455.00
Cover crop seed plus shipping cost		sf		\$25.00		\$25.00
MNL shortgrass prairie seed		sf	1000	\$60.00		\$60.00
Blue gramma/buffalo grass seed plus shipping cost		sf	325	\$75.00		\$75.00
Mulch delivery	150		1	\$150.00		\$150.00
Temporary Plant Protection Fence around serviceberries and oak trees	100	per 50 lf	1.5	\$100.00		\$100.00
Temporary Plant Protection Fence Stakes	6	each	20	\$120.00		\$120.00
Herbicide for lawn	125	lump sum	1	\$125.00		\$125.00
Plant identification signs	40	each	3	\$30.00		\$30.00
Brochure box and pole	50		1	\$50.00		\$50.00
Total				\$4,747.00	\$0.00	\$4,747.00

TOTAL

~~\$4,747.00~~ \$2,637.00

~~\$11,784.00~~

\$4,467.00

\$11,504.00

Prepared for:

Peggy Thomsen and John Graves

11533 Palmer Circle, Bloomington, MN 55437
Bloomington, MN 55437

Prepared by:

Pasque Ecological Design

office: 612.868.8033

PLANT LIST

8/6/2022

Code	Scientific Name	Common Name	Blooming Months	Blossom Color	Maximum Ht/Size	Notes	Spacing	Quantity	Recommended Min. Size to buy
Ar	<i>Amelanchier alnifolia</i> 'Regent'	Regent Serviceberry			4-6'	Fragrant flowers, orange red fall color, very high wildlife value; edible fruit. These taste AMAZING straight off the shrub! They lose a lot of flavor after they have been in the fridge.	4'	3	GAL
Arl	<i>Amelanchier laevis</i>	Allegheny Serviceberry	spring	wht	20 x20'	Fragrant flowers, orange red fall color, very high wildlife value; edible fruit, these taste AMAZING straight off the tree! They lose a lot of flavor after they have been in the fridge.	NA	1	GAL
At	<i>Anemone patens</i>	Pasque Flower	AM	pur	0.5'		NA	6	Plugs
An	<i>Antennaria neglecta</i>	Pussytoes	AMJ----	wht	0.5'	Larvae host for the American Painted Lady	12"	20	Plugs
Am	<i>Aronia melanocarpa</i>	Black Chokeberry	-MJ----	wht	4-6'	This would be a good spot for them if you still have 1 or more from the plant sale; or you can plant other fruit bearing shrubs here (eg other currants or honeyberries); supports Pollinators, Birds, Edible. Bitter, but can be eaten raw. Good for preserves and pies. High antioxidants - even higher than elderberry.	4'	3	GAL or bare root
Ab	<i>Asclepias tuberosa</i>	Butterfly Weed	--JJA--	org	2-3'	Butterfly magnet	12"	6	Plugs
Ao	<i>Aster oblongifolius</i>	Aromatic Aster	----ASO	vlt	2'	Attractive to pollinators	12"	18	Plugs
Acr	<i>Astragalus crassicaupus</i>	Ground Plum	-MJ----	pur	1'		12"	3	Plugs
Ba	<i>Baptisia australis</i> or <i>alba</i>	Wild Blue or White Indigo	-MJJ--	blu	2-4'		NA	3	GAL or 4"
Bg	<i>Bouteloua gracilis</i>	Blue Grama			0.5-1'	This could be seed instead	12"	127	Plugs and seed
Bd	<i>Buchloe dactyloides</i>	Buffalo Grass			3"-8"		NA		seed
Dm	<i>Dodecatheon meadia</i>	Midland Shooting Star	AMJ----	wh/la	1'		NA	10	Plugs
Ei	<i>Echinacea angustifolia</i>	Narrow Purple Coneflower	--JJ--	pnk	3-5'	*threatened Otter Skipper's life cycle depends greatly on this plant	12"	18	Plugs
Ey	<i>Eryngium yuccifolium</i>	Rattle Snake Master	---JAS-	wht	3'	Pollinators, Butterflies, Deer: Resistant, Host Plant	NA	7	Plugs
Gt	<i>Geum triflorum</i>	Prairie Smoke	AMJ----	red	0.5'		8"	24	Plugs
Jt	<i>Juncus tenuis</i>	Path Rush			0.5-1'		12"	84	Plugs
La	<i>Liatris aspera</i>	Rough Blazingstar	---JASO	pur	2-3'		12"	18	Plugs
Lr	<i>Lupinus perennis</i>	Wild Lupine	-MJJ--	blu	2'	Host plant for endangered Karner Blue Butterfly	12"	15	Plugs
Pp	<i>Phlox pilosa</i>	Prairie Phlox	-MJJ--	pnk	0.5-1.5'		12"	15	Plugs
Qm	<i>Quercus macrocarpa</i>	Bur Oak			75-100 x60-100'	very majestic tree form, very high wildlife value	NA	1	GAL
Ri	<i>Ribes species</i>	Currant			4-6'x3-4'	<i>Ribes americanum</i> is native in MN, some equally tasty cultivars include 'Gloire de Sablons' and 'Crandall's Clove currants	3'	3	GAL or bare root
Sa	<i>Sisyrinchium angustifolium</i>	Stout Blue Eyed Grass	MJ	blue	1'		12"	36	Plugs
Sz	<i>Solidago nemoralis</i>	Gray Goldenrod	----ASO	yel	0.5-2'		12"	9	Plugs
Sh	<i>Sporobolus heterolepis</i>	Prairie Dropseed			2-4'		24"	30	GAL or 4"
Vpe	<i>Viola pedata</i>	Bird's Foot Violet	AMJ-AS-	vlt	0.5		NA	8	Plugs

468

8/6/2022

Code	Scientific Name	Common Name	Blooming Months	Blossom Color	Maximum Ht/Size	Notes	Spacing	Quantity	Recommended Min. Size to buy	
Plant Group A										
Code	Scientific Name	Common Name	Blooming Months	Blossom Color	Maximum Ht/Size	Notes	Percent	Spacing	Quantity	Recommended Min. Size to buy
Ad	<i>Aquilegia canadensis</i>	Columbine	AMJ----	rd/or	1-3'	early nectar source; attracts bees, butterflies, and hummingbirds	5%	12"	28	Plugs
Ay	<i>Aster macrophyllus</i>	Big-Leaved Aster	----ASO	wht	3'		5%	12"	28	Plugs
Cp	<i>Carex pensylvanica</i>	Pennsylvania Sedge			0.5-1'	Tolerates foot traffic; semi-evergreen	75%	12"	417	Plugs
Fv	<i>Fragaria virginiana</i>	Wild Strawberry	AMJ----	wht	0.5'	Spreads by runners and can quickly colonize an area	3%	12"	17	Plugs
Gm	<i>Geranium maculatum</i>	Wild Geranium	AMJJ---	lav	2-3'	beautiful fall color	7%	12"	39	Plugs
Sf	<i>Solidago flexicaulis</i>	Zig Zag Goldenrod	----ASO	yel	1-3'		5%	12"	28	Plugs
								Total	556	

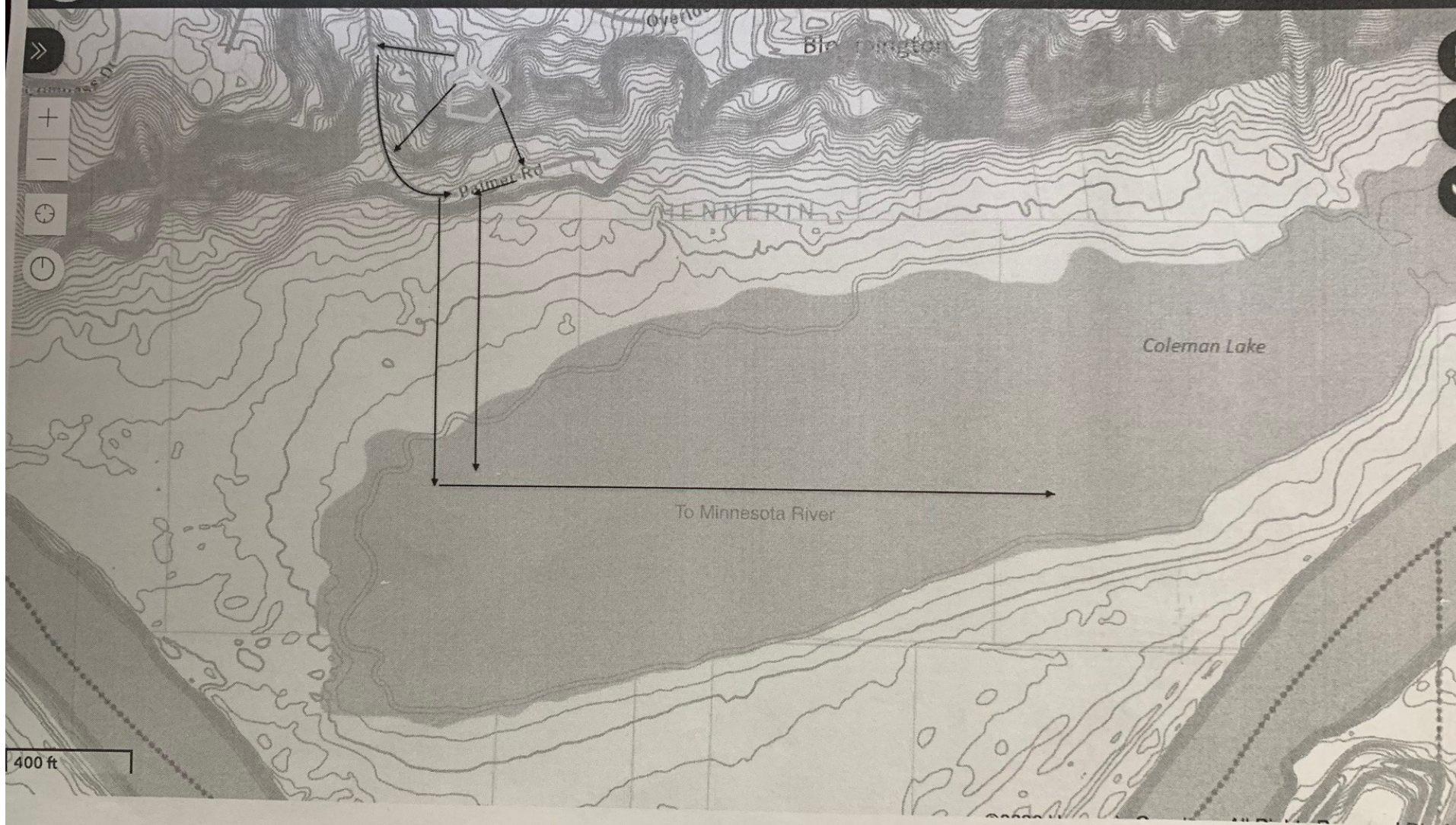
A

1 of 3



Natural Resources

HENNEPIN COUNTY
MINNESOTA



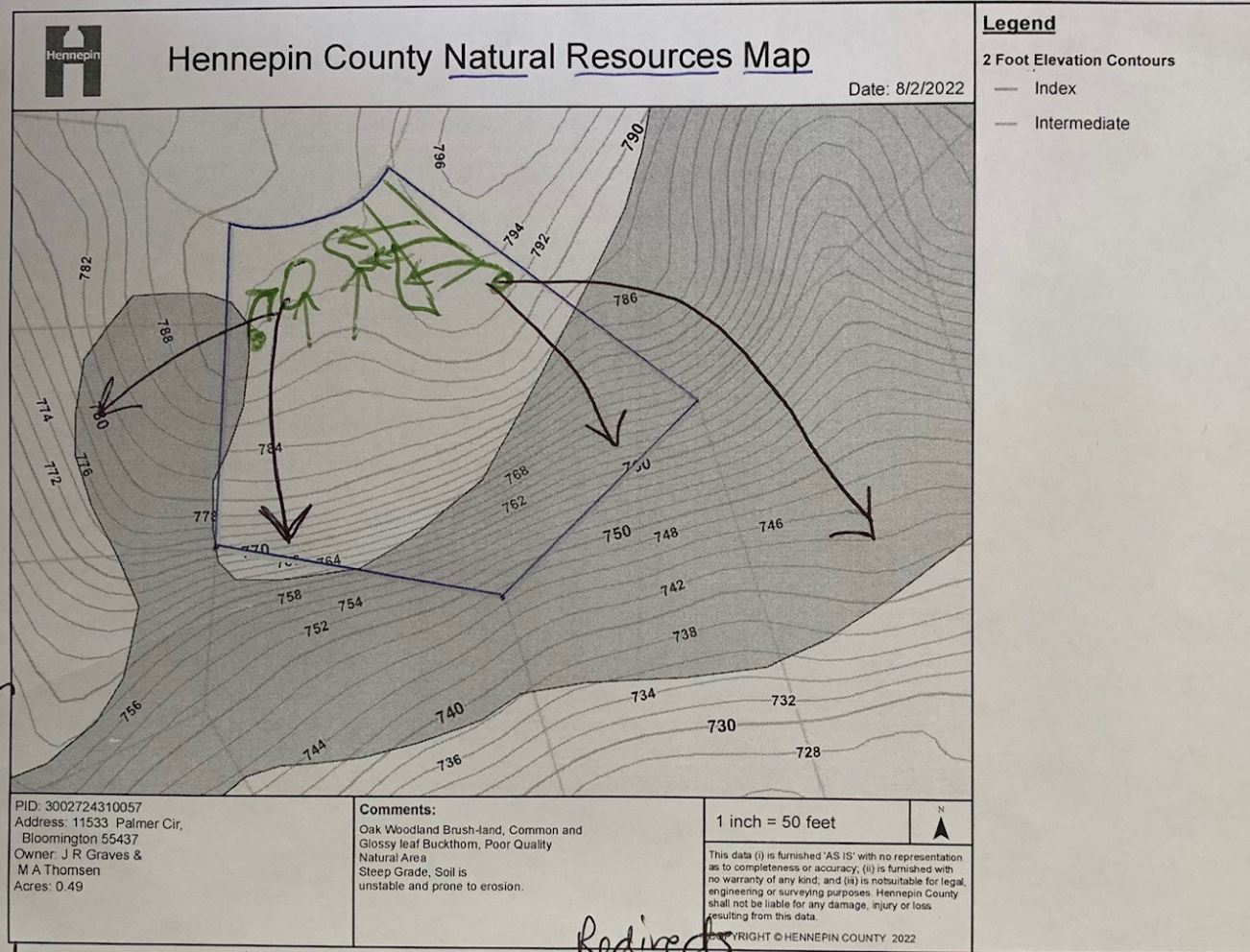
(A)

2 of 3

with contours that show grading

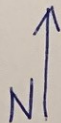
□ New flow

□ OLD flow from front



* LandScape plans #captures water and filters through front yard and dry creekbed and rain gardens.

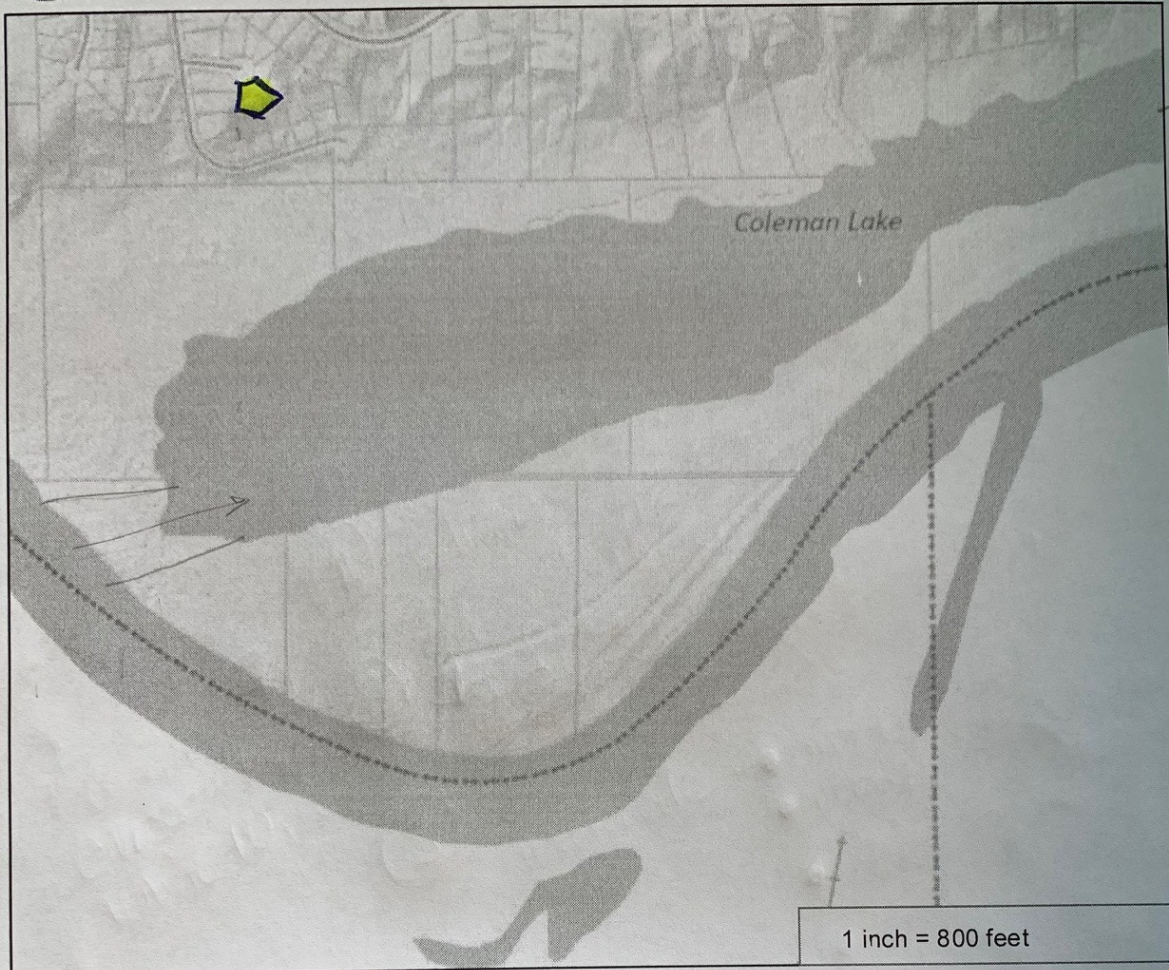
A 3 of 3





Hennepin County Property Map

Date: 8/5/2022



PARCEL ID: 3002724310057

OWNER NAME: J R Graves & M A Thomsen

PARCEL ADDRESS: 11533 Palmer Cir, Bloomington MN 55437

PARCEL AREA: 0.49 acres, 21,548 sq ft

A-T-B: Torrens

SALE PRICE: \$263,500

SALE DATA: 01/2021

SALE CODE: Excluded From Ratio Studies

ASSESSED 2021, PAYABLE 2022

PROPERTY TYPE: Residential

HOMESTEAD: Homestead

MARKET VALUE: \$339,000

TAX TOTAL: \$4,267.24

ASSESSED 2022, PAYABLE 2023

PROPERTY TYPE: Residential

HOMESTEAD: Homestead

MARKET VALUE: \$393,700

Comments:

Location is on river bluffs above Coleman Lake. All runoff drains to the Minnesota River.

This data (i) is furnished 'AS IS' with no representation as to completeness or accuracy; (ii) is furnished with no warranty of any kind; and (iii) is not suitable for legal, engineering or surveying purposes. Hennepin County shall not be liable for any damage, injury or loss resulting from this data.

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COUNTY 2022



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting
Wednesday, July 19, 2023

Agenda Item

Item 4. J. – Quote for Directors & Officers Coverage

Prepared By

Linda Loomis, Administrator

Summary

I received a quote from our insurance broker for the LMRWD Directors & Officers coverage. The quote and the current policy that is set to expire are attached for the Board's information.

This coverage will insure the Board for incidents such as:

- **Breach of fiduciary duty.** Creditors of a company that was having some financial trouble and in need of capital, sued its directors and officers for failure to identify, evaluate, negotiate, and secure the sale of company assets in a timely manner, which resulted in the company defaulting on its outstanding loans.
- **Failure to comply with workplace laws.** A female employee was terminated and then sued the directors and officers and the company for wrongful termination based on gender discrimination.
- **Theft of intellectual property.** A vice president left his firm to start up his own company. His former employer sued him and his new firm alleging that he took with him certain corporate licenses to market proprietary software, creating unfair competition and trademark infringement.
- **Misrepresentation.** A company negotiated a large contract with a customer. The contract required the company to have certain financial and human resource assets in place to satisfy production and delivery requirements. The directors misrepresented the company's revenues and capabilities and after being awarded the contract, the company was unable to meet the terms. The customer sued.

Attachments

Quote letter for Directors & Officers Insurance coverage

Directors & Officers Coverage Policy

Recommended Action

Motion to accept D & O Quote and authorize payment



International Centre 920 Second Avenue, Suite 600
Minneapolis, MN 55402
Phone: (612)-333-0361

Susan Sheehan
Horton Group, Inc. - Orland Park
10320 Orland Parkway
Orland Park, IL 60467

May 19, 2023

Re: Lower Minnesota River Watershed District, Ref# 11333018-B
Proposed Effective 8/1/2023 to 8/1/2024

Dear Susan:

We are pleased to confirm the attached quotation for NP D&O being offered with **Great American Insurance Company**. This carrier is **Admitted** in the state of **MN**. Please note that this quotation is based on the coverage, terms and conditions as stated in the attached quotation, which may be different from those requested in your original submission. As you are the representative of the Insured, it is incumbent upon you to review the terms of this quotation carefully with your Insured, and reconcile any differences from the terms requested in the original submission. CRC Insurance Services, Inc. disclaims any responsibility for your failure to reconcile with the Insured any differences between the terms quoted as per the attached and those terms originally requested. The attached quotation may not be bound without a fully executed CRC brokerage agreement.

NOTE: The Insurance Carrier indicated in this quotation reserves the right, at its sole discretion, to amend or withdraw this quotation if it becomes aware of any new, corrected or updated information that is believed to be a material change and consequently would change the original underwriting decision.

Should coverage be elected as quoted per the attached, Premium and Commission are as follows:

Premium:	\$1,045.00
Broker Fee	\$50.00

Grand Total:	\$1,095.00
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Broker Fees & Policy Fees are Fully Earned at Binding

NOTE: If insured is located outside your resident state, you must hold appropriate non-resident license prior to binding.

If Non Admitted the following applies:

Minnesota Tax Filings are the responsibility of: () Your Agency () CRC

SURPLUS LINES LICENSEE: Philip S Hagan License# 20582200

THIS INSURANCE IS ISSUED PURSUANT TO THE MINNESOTA SURPLUS LINES INSURANCE ACT. THE INSURER IS AN ELIGIBLE SURPLUS LINES INSURER BUT IS NOT OTHERWISE LICENSED BY THE STATE OF MINNESOTA.

IN CASE OF INSOLVENCY, PAYMENT OF CLAIMS IS NOT GUARANTEED.

Upon requesting quotes and/or placement for the coverage listed herein, the producing retail broker hereby confirms that he/she has performed any and all diligent searches, as may be required by statute, for coverage through licensed carriers or other means of placement, and as necessary maintain proof of declination. Where allowed by governing statutes, "diligent effort" may not require an actual physical search and declination on each risk, but may be based on the retail producing broker's own experience, opinion and overall knowledge of acceptability in the admitted marketplace.

CRC is compensated in a variety of ways, including commissions and fees paid by insurance companies and fees paid by clients. Some insurance companies pay brokers supplemental commissions (sometimes referred to as "contingent commissions" or "incentive commissions"), which is compensation that is based on a broker's performance with that carrier. These supplemental commissions may be based on volume, profitability, retention, growth or other measures. Even if a contingent commission agreement exists with a carrier, we recognize that our responsibility is to promote the best interests of the policyholder in the selection of an insurance company. For more information on CRC's compensation, please contact your CRC broker.

Financing Insurance Premiums

Premium financing budgets insurance payments and improves liquidity for other business objectives: working capital, business growth, business expansion.

If your clients choose to pay their insurance in monthly installments, it's fast and easy with AFCO Credit Corporation, which is an affiliate of CRC, providing premium financing solutions for companies across the United States.

You can learn more about how premium financing works and how it can expand your relationship with your clients by emailing afcodirect@afco.com; or call toll-free **877-317-6437**, option 1. Additional information is available at <https://www.afco.com/partners/crc.html>.

Sincerely,

Ashley Schmidt

aschmidt@crcgroup.com
11333018

CONFIDENTIAL



301 E. Fourth Street, Cincinnati, OH 45202

ExecProsm
DECLARATIONS
for
**Nonprofit Solution
Insurance Policy**

Insurance is afforded by the company indicated below: (Each a capital stock corporation)

☒ Great American Insurance Company

Policy Number: EPP9427304

Policy Form Number: D16100

Item 1. Name of **Organization**: LOWER MINNESOTA RIVER WATERSHED DISTRICT

Mailing Address: 112 EAST FIFTH STREET, SUITE 102

City, State, Zip Code: CHASKA, MN 55318

Attn: EXECUTIVE DIRECTOR

Item 2. **Policy Period**: From 08/01/2022 To 08/01/2023
(Month, Day, Year) (Month, Day, Year)
(Both dates at 12:01 a.m. Standard Time at the address of the **Organization** as stated in Item 1)

Item 3. Aggregate Limit(s) of Liability for each **Policy Year**:

- (a) \$ 1,000,000 for all **Claims** other than **Claims** for **Employment Practices Wrongful Acts**.
(b) \$ 10,000 Donor Data Loss Crisis Fund Sublimit of Liability. This limit is part of and not in addition to the Limit of Liability provided for in 3(a).
(c) \$ 1,000,000 for all **Claims** for **Employment Practices Wrongful Acts**. This limit is:
☒ part of and not in addition to the Limit of Liability provided for in 3(a).
☐ separate from and in addition to the Limit of Liability provided for in 3(a).
(d) \$150,000 FLSA Defense Sublimit of Liability. This limit is part of and not in addition to the Limit of Liability provided for in 3(c).

Item 4. Retentions:

Insuring Agreement A: \$ 0
Insuring Agreements B and/or C: \$ 1,000

Each Claim
Each Claim

Summary of Charges

Premium \$1,015.00
CRC Broker Fee \$50.00
Total \$1,065.00
Zip Code 55318

Item 5. Premium:
\$ 1,015

Item 6. Endorsements Attached:

D16321 D16501 D16548 D16712 (13) DTCOV IL7324

Item 7. Notices: All notices required to be given to the **Insurer** under this Policy shall be addressed to:

*Great American Insurance Companies
Executive Liability Division
P.O. Box 66943
Chicago, Illinois 60666*

Item 8. Prior & Pending Litigation Date: 07/01/1996

These Declarations along with the completed and signed Proposal Form and Nonprofit Solution Insurance Policy, shall constitute the contract between the **Insureds** and the **Insurer**.

THIS IS A CLAIMS MADE POLICY. READ IT CAREFULLY.

**MINNESOTA
AMENDATORY ENDORSEMENT**

In compliance with the insurance regulations of the state of Minnesota, the following provisions are hereby added to the Policy. In the event that a similar provision is already contained in the Policy, the provisions of this endorsement shall take precedence over such similar provisions.

CANCELLATION OR NON-RENEWAL OF THE POLICY

- (1) This Policy may be cancelled by the **Organization** by surrender of the Policy to the **Insurer**.

This Policy may also be cancelled by or on behalf of the **Insurer** by delivering to the **Organization**, or by mailing to the **Organization** by certified mail or other first class mail, at the address stated in Item 1 of the Declarations, written notice stating when, not less than sixty (60) days thereafter, the cancellation shall be effective. The mailing of such notice shall contain a specific reason for cancellation, and as aforesaid shall be sufficient proof of notice and this Policy shall terminate at the date and hour specified in such notice.

A. MID-TERM CANCELLATION OF POLICIES IN FORCE FOR NINETY (90) DAYS OR MORE

Insurance under this Policy which has been in effect for ninety (90) days or more may be cancelled by the **Insurer** prior to the expiration of the policy term only for one of the following specified reasons: (1) nonpayment of premium; (2) misrepresentation or fraud made by or with the knowledge of the **Insured** in obtaining the Policy or in pursuing a **Claim** under the Policy; (3) actions by the **Insured** that have substantially increased or substantially changed the risk insured; (4) refusal of the **Insured** to eliminate known conditions that increase the potential for loss after notification by the **Insurer** that the condition must be removed; (5) substantial change in the risk assumed, except to the extent that the **Insurer** should reasonably have foreseen the change or contemplated the risk prior to writing the contract; (6) loss of reinsurance by the **Insurer** which provided coverage to the **Insurer** for a significant amount of the underlying risk insured. A notice of cancellation under this clause shall advise the **Organization** that the **Organization** has ten (10) days from the date of receipt of the notice to appeal the cancellation to the commissioner of commerce and the commissioner will render a decision as to

Insured: LOWER MINNESOTA RIVER WATERSHED DISTRICT

Policy Period: 8/1/2022 to 8/1/2023

Policy Number: EPP9427304

Countersigned by: _____
Authorized Representative

Endorsement Effective Date: 8/1/2022

**MINNESOTA
AMENDATORY ENDORSEMENT**

whether the cancellation is justified because of the loss of reinsurance within five (5) business days after receipt of the appeal; (7) a determination by the commissioner that the continuation of the Policy could place the **Insurer** in violation of the insurance laws of this state; or (8) nonpayment of dues to an association or organization, where payment of dues is a prerequisite to obtaining or continuing the insurance. This provision for cancellation for failure to pay dues does not apply to persons who are retired at 62 years of age or older or who are disabled according to social security standards.

B. CANCELLATION FOR NON-PAYMENT OF PREMIUM

Insurance under this Policy may be cancelled by the **Insurer** if the **Organization** fails to discharge when due any of its obligations in connection with the payment of premium for such Policy or any installment thereof by mailing to the **Organization** written notice stating when, not less than ten (10) days thereafter, such cancellation shall be effective.

C. CANCELLATION OF POLICIES IN FORCE LESS THAN NINETY (90) DAYS

Insurance under this Policy which has been in force for less than ninety (90) days may be cancelled by the **Insurer** by mailing to the **Organization** written notice stating when, not less than ten (10) days thereafter, such cancellation shall be effective.

- (2) If the **Insurer** elects not to renew this Policy, the **Insurer** shall provide the **Organization** with not less than sixty (60) days advance notice thereof.

OTHER

- (3) All payments for any amount finally agreed upon in settlement of all or part of any **Claim** shall be made within five (5) business days from the receipt of the agreement by the **Insurer** or from the date of the performance by the claimant or any conditions set by such agreement, whichever is later.
- (4) If a judgment is entered against an **Insured**, the principal amount of which is within the applicable policy limits, the **Insurer** is responsible for their **Insured's** share of the costs, disbursements, and prejudgment interest, as determined under Section 549.09, included in the judgment even if the total amount is in excess of the applicable policy limits.

**MINNESOTA
AMENDATORY ENDORSEMENT**

- (5)
- (a) An insurance company providing insurance coverage or its reinsurer for that underlying insurance coverage may not proceed against its **Insured** in a subrogation action where the **Loss** was caused by the non-intentional acts of the **Insured**.
 - (b) An insurance company providing insurance coverage or its reinsurer for that underlying insurance coverage may not subrogate itself to the rights of its **Insured** to proceed against another person if that other person is insured for the same **Loss**, by the same company. This provision applies only if the **Loss** was caused by the non-intentional acts of the person against whom subrogation is sought.

Nothing herein contained shall be held to vary, alter, waive or extend any of the terms, conditions, provisions, agreements or limitations of the above mentioned Policy other than as above stated.



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Nonprofit Solution

RATE MAKING EXCLUSION

It is understood and agreed that no coverage is available for any **Claim** based upon, arising out of, relating to, directly or indirectly resulting from, or in consequence of, or in any way involving any rate making proceeding, or any appeal therefrom, or any challenge brought in any forum to a rate decision or pricing structure of any **Insured**.

Nothing herein contained shall be held to vary, alter, waive or extend any of the terms, conditions, provisions, agreements or limitations of the above mentioned Policy other than as above stated.

Insured: LOWER MINNESOTA RIVER WATERSHED DISTRICT

Policy Period: 8/1/2022 to 8/1/2023

Policy Number: EPP9427304

Countersigned by: _____
Authorized Representative

Endorsement Effective Date: 8/1/2022



SUBLIMIT OF COVERAGE FOR TELEPHONE CONSUMER PROTECTION ACT CLAIMS

The **Insurer's** maximum aggregate liability for all **Loss** in connection with **Claims** made against any **Insured** for a **TCPA Wrongful Act** shall be \$ 100,000 for each **Policy Year**, which amount is part of, and not in addition to, the maximum Limit of Liability shown in Item 3.(a) of the Declarations regardless of the number of **Claims** during such **Policy Year**.

In the event a **Claim** involves a **TCPA Wrongful Act** and a **Personal Injury Wrongful Act**, such **Claim** shall be considered a **Claim** for a **TCPA Wrongful Act** and shall be subject to the TCPA Sublimit of Liability.

7. Section V.C. is amended by the addition of the following:

With respect to any **Claim** for a **TCPA Wrongful Act**, **Costs of Defense** incurred either by the **Insurer** or the **Insured** shall be considered **Loss** and, therefore, subject to the TCPA Sublimit of Liability and the Retention.

8. Item 3. of the Declarations is amended by the addition of the following:

\$ 100,000 TCPA Sublimit of Liability for **Claims** for any **TCPA Wrongful Act** for each **Policy Year**.

9. Item 4. of the Declarations is amended by the addition of the following:

\$ 1,000 Retention applicable to Insuring Agreements I.B. and I.C.
for any **Claim** for **TCPA Wrongful Act**.

Nothing herein contained shall be held to vary, alter, waive or extend any of the terms, conditions, provisions, agreements or limitations of the above mentioned Policy other than as above stated.



GREAT AMERICAN NONPROFIT EAGLE ENDORSEMENT

It is understood and agreed that the following changes are made to the Policy:

AMENDMENT TO LIMIT OF LIABILITY

Additional A-Side Limit of Liability

It is understood and agreed that Section V. is amended by the addition of the following:

Notwithstanding anything in this Policy to the contrary, the Policy provides an Additional Limit of Liability dedicated for directors, trustees, officers, regents, governors and members of the Board of Managers. This Additional Limit of Liability shall be \$ 250,000 , which amount is in addition to, and not part of, the aggregate Limit of Liability as set forth in Item 3. of the Declarations.

This Additional Limit of Liability is available solely for **Loss** resulting from any **Claim** against any director, trustee, officer, regent, governor and/or member of the Board of Managers covered under Section I.A. of this Policy, and:

- (1) Any **Loss** resulting from any **Claim** against any director, trustee, officer, regent, governor and/or member of the Board of Managers covered under Section I.A. of this Policy shall first be paid under the aggregate Limit of Liability as set forth in Item 3. of the Declarations, and such Limit of Liability must be completely exhausted by payment of **Loss** under Section I.A., I.B., and/or I.C. of this Policy before **Loss** shall be paid under the dedicated Additional Limit of Liability, and
- (2) The dedicated Additional Limit of Liability shall be excess of any insurance available that is specifically excess of this Policy, and such excess insurance must be completely exhausted by payment of **Loss** thereunder before the **Insurer** shall have any obligations to make payment on account of the dedicated Additional Limit of Liability

Insured: LOWER MINNESOTA RIVER WATERSHED DISTRICT

Policy Period: 8/1/2022 to 8/1/2023

Policy Number: EPP9427304

Countersigned by: _____
Authorized Representative

Endorsement Effective Date: 8/1/2022

GREAT AMERICAN NONPROFIT EAGLE ENDORSEMENT

TERRORISM TRAVEL REIMBURSEMENT FUNDS

1. Section III. is amended by the addition of the following:

“Certified Act of Terrorism” shall mean an act that is certified by the Secretary of the Treasury in accordance with the provisions of the Terrorism Risk Insurance Act to be an act of terrorism pursuant to such Act.

“Emergency Travel Expenses” shall mean hotel expenses incurred which directly result from the cancellation of a scheduled transport, by train or air, by a commercial transportation carrier resulting directly from and within forty-eight (48) hours of a **Certified Act of Terrorism**, and the increased amount incurred in air or train fare which may result from rescheduling comparable transport, to replace a similarly scheduled transport canceled by a commercial transportation carrier in direct response to a **Certified Act of Terrorism**.

2. Section VIII. is amended by the addition of the following:

Terrorism Travel Reimbursement Fund

In the event any current director, trustee, officer, regent, governor or member of the Board of Managers of the **Organization** or any **Subsidiary** advises the **Insurer** of **Emergency Travel Expenses** incurred during the **Policy Period**, the **Insurer** shall reimburse the **Emergency Travel Expenses**. This coverage extension shall be subject to the Terrorism Travel Reimbursement Fund Limit of Liability stated below, provided, however, no Retention shall apply.

3. Item 3. of the Declarations is amended by the addition of the following:

\$ 50,000 Aggregate Terrorism Travel Reimbursement Fund Limit of Liability for each **Policy Year**. This Limit of Liability shall be in addition to the Aggregate Limit of Liability provided for in Item 3. of the Declarations.

4. Provided the current director, trustee, officer, regent, governor or member of the Board of Managers of the **Organization** or any **Subsidiary** advises the **Insurer** of **Emergency Travel Expenses** incurred during the **Policy Period** and provides written evidence of such amounts, the **Insurer** shall promptly reimburse such individual within thirty (30) days. Such notice and written evidence shall be provided to the **Insurer** by e-mailing the **Insurer** at: eldclaims@gaig.com.

WORKPLACE VIOLENCE COUNSELING FUND

1. Section III. is amended by the addition of the following:

“Workplace Violence Act” shall mean any actual or alleged intentional and unlawful use of, or threat to use, deadly force with intent to cause harm to others occurring at any building, facility or property occupied by the **Organization** or any **Subsidiary** in the conduct of its operations.

GREAT AMERICAN NONPROFIT EAGLE ENDORSEMENT

2. Section VIII. is amended by the addition of the following:

Workplace Violence Counseling Fund

In the event that a **Workplace Violence Act** occurs during the **Policy Period** and the **Organization** advises the **Insurer** of such **Workplace Violence Act**, the **Insurer** shall, subject to prior written consent, reimburse the **Organization** reasonable expenses incurred for the emotional counseling of **Insured Persons**. This coverage extension is subject to the Workplace Violence Counseling Fund Limit of Liability set forth below, provided, however, no Retention shall apply.

3. Item 3. of the Declarations is amended by the addition of the following:

\$ 50,000 Aggregate Workplace Violence Counseling Fund Limit of Liability for each **Policy Year**. This Limit of Liability shall be in addition to the Aggregate Limit of Liability provided for in Item 3. of the Declarations.

4. The **Organization** shall advise the **Insurer** of such **Workplace Violence Act** during the **Policy Period** by e-mailing the **Insurer** at: eldclaims@gaig.com. The consent of the **Insurer** shall not be unreasonably withheld.

INCIDENT CRISIS FUND

1. Section III. is amended by the addition of the following:

“**Crisis**” shall mean the public announcement that an **Incident** occurred at any building, facility or property occupied by the **Organization** or any **Subsidiary** in the conduct of its operations.

“**Incident**” shall mean an accident or other event resulting in the death or **Serious Bodily Injury** to three or more persons.

“**Serious Bodily Injury**” shall mean an injury to a person that creates a substantial risk of death, serious permanent disfigurement, or protracted loss or impairment of the function of any bodily member or organ.

2. Section VIII. is amended by the addition of the following:

Incident Crisis Fund

The **Insurer** shall, subject to prior written consent, reimburse the **Organization** reasonable expenses incurred to hire an image consulting company for the purpose of reducing damage to reputation suffered by the **Organization** or any **Subsidiary** arising from a **Crisis** during the **Policy Period**. This coverage extension is subject to the Incident Crisis Fund Limit of Liability set forth below, provided, however, no Retention shall apply.

GREAT AMERICAN NONPROFIT EAGLE ENDORSEMENT

3. Item 3. of the Declarations is amended by the addition of the following:
- \$ 50,000** Aggregate Incident Crisis Fund Limit of Liability for each **Policy Year**. This Limit of Liability shall be in addition to the Aggregate Limit of Liability provided for in Item 3. of the Declarations.
4. The **Organization** shall advise the **Insurer** of such **Crisis** during the **Policy Period** by e-mailing the **Insurer** at: eldclaims@gaig.com. The consent of the **Insurer** shall not be unreasonably withheld.

AMENDMENT TO PERSONAL PROFIT EXCLUSION

Section IV.A. is deleted and replaced with the following:

- A. brought about or contributed to by:
- (1) any **Insureds** gaining any personal profit, financial advantage or remuneration to which they were not legally entitled; or
 - (2) the deliberately fraudulent or criminal acts of any **Insureds**;
- provided, however, this exclusion shall not apply unless and until there is a final non-appealable adjudication as to such conduct in the underlying proceeding. This exclusion shall not apply to coverage provided under Insuring Agreement I.B.;

AMENDMENT TO OTHER INSURANCE EXCLUSION

Section IV.B. is amended by the addition of the following:

If this Policy includes coverage for any **Claim** for **Employment Practices Wrongful Acts**, such coverage shall be deemed primary over any similar coverage maintained either by the **Organization** or any **Subsidiary**.

AMENDMENT TO INSURED vs. INSURED EXCLUSION

Section IV.H. is deleted and replaced with the following:

- H. by, or for the benefit of, or at the behest of the **Organization** or any **Subsidiary** or any entity which controls, is controlled by, or is under common control with the **Organization** or any **Subsidiary**, or any person or entity which succeeds to the interests of the **Organization** or any **Subsidiary**, provided, however, this exclusion shall not apply to any **Claim**, if such **Claim**:
- (1) is for an **Employment Practices Wrongful Act** brought by an **Insured Person**;

GREAT AMERICAN NONPROFIT EAGLE ENDORSEMENT

- (2) is brought by the receiver, conservator, creditors' committee, liquidator, trustee, rehabilitator, examiner or similar official of the **Organization**, if any, in the event of **Financial Insolvency**;
- (3) is brought or maintained derivatively, including any **Claim** brought or maintained under any federal, state, local or foreign whistleblower law or whistleblower provision of any law if the individual bringing such **Claim** is acting totally independent of, and without the solicitation, assistance, active participation or intervention of any director, officer, trustee, regent, governor or member of the Board of Managers of the **Organization** or any **Subsidiary**;
- (4) is brought by any former director, officer, trustee, regent, or governor of the **Organization** or any **Subsidiary** who has not served in that capacity with the **Organization** or any **Subsidiary** for at least two (2) years prior to the commencement of such **Claim**, and is acting totally independent of, and without the solicitation, assistance, active participation or intervention of any director, officer, trustee, regent, governor or member of the Board of Managers of the **Organization** or any **Subsidiary**.

COSTS OF DEFENSE SUBLIMIT FOR BREACH OF EMPLOYMENT AGREEMENT CLAIMS
--

It is understood and agreed that the Policy is amended as follows:

- 1. Section IV.I. is deleted and replaced with the following:
 - I. for any actual or alleged breach by the **Organization** or any **Subsidiary** of an express or implied contract, provided, however, this exclusion shall not apply to:
 - (1) employment-related obligations which would have attached absent such contract or agreement; or
 - (2) **Costs of Defense** if such **Claim** is for any actual or alleged breach of an employment agreement and such coverage for **Costs of Defense** shall be subject to the Sublimit stated below.
- 2. Item 3. of the Declarations is amended by the addition of the following:

\$ 100,000 Sublimit for **Costs of Defense** for **Claims** for Breach of an Employment Agreement. This Sublimit is part of and not in addition to the Limit of Liability set forth in Item 3. of the Declarations.

GREAT AMERICAN NONPROFIT EAGLE ENDORSEMENT

AMENDMENT TO COSTS OF DEFENSE AND SETTLEMENTS

Section VI.B. is deleted and replaced with the following:

- B. The **Insurer** has the right to investigate and settle any **Claim** as it deems expedient. If the **Insurer** recommends a settlement and the **Insured** refuses to consent thereto, the **Insurer's** liability for such **Claim** is limited to the amount in excess of the Retention, which the **Insurer** would have contributed had the **Insured** consented to the settlement, the **Costs of Defense** covered by the Policy and incurred prior to the date of such refusal to settle, and eighty percent (80 %) of any additional covered **Loss**, including **Costs of Defense**, incurred subsequent to such refusal and subject to the Limit of Liability.

If the **Insured** refuses to consent to a settlement as contemplated above, **Costs of Defense** shall be subject to the Retention.

100% COSTS OF DEFENSE ALLOCATION

Section VI. is amended by the addition of the following:

- C. If a **Claim** made against any **Insured** includes both covered and uncovered matters, the **Insureds** and the **Insurer** recognize that there must be an allocation between insured **Loss** and uninsured loss, therefore, the **Insureds** and the **Insurer** shall allocate such amount as follows:
1. with respect to **Costs of Defense**, one hundred percent (100%) of all **Costs of Defense** which must otherwise be allocated as described above shall be allocated to the insured **Loss**; and
 2. with respect to **Loss** other than **Costs of Defense**, the **Insurer** and the **Insureds** shall use their best efforts to agree upon a fair and proper allocation of such amounts between insured **Loss** and uninsured loss.

AMENDMENT TO SUBROGATION

Section IX.H. is deleted and replaced with the following:

- H. In the event of payment under this Policy, the **Insurer** shall be subrogated to all the **Insureds'** rights of recovery. The **Insureds** shall do everything necessary to secure such rights, including the execution of such documents necessary to enable the **Insurer** to effectively bring suit in the name of any **Insured**. In no event, however, shall the **Insurer** exercise its rights to subrogation against an **Insured Person** under this Policy unless the exclusion set forth in Section IV.A. of the Policy applies to such **Insured Person**.



GREAT AMERICAN NONPROFIT EAGLE ENDORSEMENT

In the event the **Insurer** shall for any reason pay indemnifiable **Loss** on behalf of an **Insured Person**, the **Insurer** shall have the contractual right hereunder to recover from the **Organization** or any **Subsidiary** the amount of such **Loss** equal to the amount of the Retention not satisfied by the **Organization** or any **Subsidiary** and shall be subrogated to rights of the **Insured Persons** hereunder.

INCONSISTENCY COVERAGE

Section IX. is amended by the addition of the following:

Inconsistency Coverage

In the event of an inconsistency between this endorsement, or a state amendatory endorsement, and any other endorsement attached to this Policy, the **Insurer**, as permitted by law, shall apply those terms and conditions which are more favorable to the **Insureds**.

Nothing herein contained shall be held to vary, alter, waive or extend any of the terms, conditions, provisions, agreements or limitations of the above mentioned Policy other than as above stated.



TERRORISM COVERAGE ENDORSEMENT CAP ON LOSS FROM CERTIFIED ACTS

Subject to all terms and conditions of this Policy, including any follow-form provisions, this Policy is amended by the addition of the following:

CERTIFIED ACTS OF TERRORISM COVERAGE

"Certified Act of Terrorism" means an act that is certified by the Secretary of the Treasury, in concurrence with the Secretary of Homeland Security and the Attorney General of the United States, to be an act pursuant to the federal Terrorism Risk Insurance Act. The criteria contained in the Terrorism Risk Insurance Act for a "Certified Act of Terrorism" include the following:

1. the act resulted in insured losses in excess of \$5 million in the aggregate attributable to all types of insurance subject to the Terrorism Risk Insurance Act; and
2. the act is a violent act or an act that is dangerous to human life, property or infrastructure and is committed by an individual or individuals, as part of an effort to coerce the civilian population of the United States or to influence the policy or affect the conduct of the United States government by coercion.

If the aggregate insured losses attributable to terrorist acts certified under the Terrorism Risk Insurance Act exceed \$100 billion in a calendar year in the aggregate and the Insurer has met its deductible under the Terrorism Risk Insurance Act, the Insurer shall not be liable for the payment of any portion of the amount of such losses that exceeds \$100 billion, and in such case insured losses up to that amount are subject to pro rate allocation in accordance with procedures established by the Secretary of the Treasury.

It is understood and agreed that the Premium section of the Declarations is amended by the addition of the following:

Terrorism Premium: \$ 0.00

The Policyholder Disclosure Offer of Terrorism Coverage is attached to and is to be considered as incorporated in and constituting a part of this Policy.

This coverage shall not apply to any commercial crime or errors & omissions coverages that may be included in this policy.

This endorsement does not extend any additional coverage or otherwise change the terms and conditions of any coverage under this Policy.

Insured: LOWER MINNESOTA RIVER WATERSHED DISTRICT

Policy Period: 8/1/2022 to 8/1/2023

Policy Number: EPP9427304

Countersigned by: _____
Authorized Representative

Endorsement Effective Date: 8/1/2022



ECONOMIC AND TRADE SANCTIONS CLAUSE

This insurance does not apply to the extent that trade or economic sanctions or other laws or regulations prohibit us from providing insurance.

Insured: LOWER MINNESOTA RIVER WATERSHED DISTRICT

Policy Period: 8/1/2022 to 8/1/2023

Policy Number: EPP9427304

Countersigned by: _____
Authorized Representative

Endorsement Effective Date: 8/1/2022



POLICYHOLDER DISCLOSURE OFFER OF TERRORISM COVERAGE

The Terrorism Risk Insurance Act establishes a program within the Department of the Treasury, under which the federal government shares, with the insurance industry, the risk of loss from future terrorist attacks. The Act applies when the Secretary of the Treasury certifies that an event meets the definition of an act of terrorism. The Act provides that, to be certified, an act of terrorism must cause losses of at least five million dollars and must have been committed by an individual or individuals as part of an effort to coerce the government or population of the United States.

The United States Government, Department of the Treasury, will pay a share of terrorism losses insured under the federal program. The federal share equals 80% beginning on January 1, 2020, of that portion of the amount of such insured losses that exceeds the applicable insurer retention. However, if aggregate insured losses attributable to terrorist acts certified under the Terrorism Risk Insurance Act exceed \$100 billion in a calendar year, the Treasury shall not make any payment for any portion of the amount of such losses that exceeds \$100 billion.

If aggregate insured losses attributable to terrorist acts certified under the Terrorism Risk Insurance Act exceed \$100 billion in a calendar year and we have met our insurer deductible under the Terrorism Risk Insurance Act, we shall not be liable for the payment of any portion of the amount of such losses that exceeds \$100 billion, and in such case insured losses up to that amount are subject to pro rata allocation in accordance with procedures established by the Secretary of the Treasury.

In accordance with the Terrorism Risk Insurance Act, we are required to offer you coverage for losses resulting from an act of terrorism **that is certified under the federal program** as an act of terrorism. The policy's other provisions will still apply to such an act.

This coverage shall not apply to any commercial crime coverage that may be included in this policy.

Terrorism coverage for acts of terrorism that are certified under the federal program as an act of terrorism is included for no additional premium. Nonetheless, if you would like to reject such Terrorism coverage, please provide Great American written confirmation of such, and an exclusion will be attached to your policy.

This coverage shall not apply to any commercial crime or errors & omissions coverages that may be included in this policy.

Employment Practices Risk Management Program

Your Great American ExecPro® Policy gives you access to the following Jackson Lewis Risk Management Program

Jackson Lewis “Hotline” Service

National law firm Jackson Lewis is available for complimentary, confidential telephone consultation on basic workplace employment topics via the toll-free number. Through this “hotline”, you can obtain guidance with respect to best practices for:

- Preserving employment-at-will status
- Managing medical leaves of absence
- Developing an open-door problem resolution procedure
- Reporting and investigating allegation of harassment or discrimination
- Eligibility standards for overtime pay under the Fair Labor Standards Act and state laws
- Developing a program to post opportunities for transfers and promotions to avoid class action claims
- Other basic human resources issues

Reducing Workplace Claims Guide

Via the “hotline” number, you can request a copy of Jackson Lewis’ *Reducing the Risk of Employment Practices Liability Claims Guide*. This guide contains general information about diverse workplace law issues such as:

- Legal basis for employment claims
- Considerations in setting company policies and procedures
- Hiring process and pre-employment testing
- Complying with the Family and Medical Leave Act
- Conducting effective discharge and discipline
- Addressing reports of harassment in the workplace
- Maintaining personal records
- Establishing a code of conduct to help prevent employee misconduct

Preventive Strategies Newsletter

Via the “hotline” number, you can subscribe to Jackson Lewis’ complimentary national and regional e-bulletins, which provide regular analysis and commentary about legal, legislative and political developments that affect the law of the workplace.

Jackson Lewis Training Session

Educational seminars and management training about compliance with federal equal employment laws and other risk management services are offered by Jackson Lewis to policyholders at a special rate. For further details, please call the “hotline” number.

Special Rates

Jackson Lewis will offer special billing rates to ExecPro® policyholders to assist in developing preventive practices, preparing employee handbooks and training supervisors.

To access the Jackson Lewis “hotline” or if you have further questions about the program, please call this toll-free number.

1 (888) 544 8320

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ExecPro®

Nonprofit Solution



Nonprofit Solution

Great American Insurance Group – Executive Liability Division
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GREAT AMERICAN INSURANCE GROUP®

Headquarters: 301 E. Fourth Street, Cincinnati, Ohio 45202

THIS IS A CLAIMS MADE AND REPORTED POLICY. READ IT CAREFULLY.

In consideration of the payment of the premium and in reliance upon all statements made and information furnished to the company shown in the Declarations (a stock insurance company, hereinafter called the **Insurer**), including the statements made in the Proposal Form and subject to all terms, conditions and limitations of this Policy, the **Insured** and **Insurer** agree:

Section I. Insuring Agreements

- A. If during the **Policy Period** or the **Discovery Period** any **Claim** is first made against any **Insured Persons** for a **Wrongful Act**, the **Insurer** shall pay on behalf of the **Insured Persons**, **Loss** and **Costs of Defense** resulting from such **Claim**, except for any **Loss** and **Costs of Defense** which the **Organization** or any **Subsidiary** actually pays as indemnification.
- B. If during the **Policy Period** or the **Discovery Period** any **Claim** is first made against any **Insured Persons** for a **Wrongful Act**, the **Insurer** shall pay on behalf of the **Organization** or any **Subsidiary**, **Loss** and **Costs of Defense** resulting from such **Claim**, but only to the extent the **Organization** or any **Subsidiary** is required or permitted by law to indemnify the **Insured Persons**.
- C. If during the **Policy Period** or the **Discovery Period** any **Claim** is first made against the **Organization** or any **Subsidiary** for a **Wrongful Act**, the **Insurer** shall pay on behalf of the **Organization** or any **Subsidiary**, **Loss** and **Costs of Defense** resulting from such **Claim**.

The **Insurer** has the right and duty to defend any **Claim** to which this insurance applies, even if the allegations of such **Claim** are groundless, false or fraudulent.

Section II. Discovery Period

- A. If this Policy is not renewed or is cancelled by the **Insurer**, for any reason other than non-payment of premium, then without any additional premium being required, the **Organization** shall receive an automatic ninety (90) day extension of the coverage granted by this Policy for **Claims** first made against an **Insured**, but only with respect to **Wrongful Acts** committed prior to the end of the **Policy Period**. This additional reporting period shall be referred to as the **Automatic Discovery Period**. In addition, if prior to the end of the **Automatic Discovery Period**, the **Organization** pays the **Insurer** an additional amount equal to forty (40%), seventy-five (75%), or one hundred (100%) percent of the annual premium of this Policy, the **Organization** shall receive an extension of the coverage granted by this Policy for an additional twelve (12), twenty-four (24), or thirty-six (36) months respectively from the end of the **Automatic Discovery Period** for **Claims** first made against an **Insured**, but only with respect to **Wrongful Acts** committed prior to the end of the **Policy Period**. This additional reporting period shall be referred to as the **Discovery Period**. The **Organization** has no right to purchase this **Discovery Period** at any later date or to elect more than one **Discovery Period**.
- B. If this Policy is not renewed or is cancelled by the **Organization**, and if no later than sixty (60) days after the end of the **Policy Period** the **Organization** pays the **Insurer** an additional amount equal to forty (40%), seventy-five (75%), or one hundred (100%) percent of the annual premium of this Policy, the **Organization** shall receive a **Discovery Period** for an additional twelve (12), twenty-four (24), or thirty-six (36) months respectively from the end of the **Policy Period**. The **Organization** has no right to purchase this **Discovery Period** at any later date or to elect more than one **Discovery Period**.

- C. The fact that this Policy may be extended by virtue of the **Automatic Discovery Period** or **Discovery Period** shall not in any way increase the Limit of Liability stated in Item 3 of the Declarations. For purposes of the Limit of Liability, the **Automatic Discovery Period** and the **Discovery Period** is considered to be part of and not in addition to the last **Policy Year**.

Section III. Definitions

A. **"Claim"** shall mean:

- (1) a written demand for monetary or non-monetary (including injunctive) relief made against any **Insured**;
- (2) a civil proceeding, including any appeals therefrom made against any **Insured** seeking monetary or non-monetary (including injunctive) relief commenced by service of a complaint or similar pleading;
- (3) a criminal proceeding, including any appeals therefrom made against any **Insured** commenced by the return of an indictment or the filing of notice of charge or similar document,
- (4) a formal administrative proceeding, including any proceeding before the Equal Employment Opportunity Commission (EEOC) or any similar governmental body, made against any **Insured** commenced by the receipt of charges, formal investigative order, service of summons or similar document;
- (5) any arbitration, mediation or similar alternative dispute resolution proceeding if any **Insured** is obligated to participate in such proceeding; or
- (6) a written request to enter into an agreement to toll any applicable statute of limitation prior to the commencement of any judicial, administrative, regulatory or arbitration proceeding.

In no event shall the term **Claim** include any labor or grievance proceeding which is subject to a collective bargaining agreement.

B. **"Claimant"** shall mean:

- (1) any past, present, and future **Insured Persons** or applicants for employment with the **Organization** or any **Subsidiary**;
- (2) a government entity or agency, including but not limited to the Equal Employment Opportunity Commission (EEOC) or any similar governmental body, when acting on behalf of or for the benefit of any individual in (1) above; or
- (3) all persons who were, now are, or shall be independent contractors, but only to the extent such individuals perform work or services for or on behalf of the **Organization** or any **Subsidiary** and only to the extent such individuals are indemnified by the **Organization** or any **Subsidiary**.

- C. **"Costs of Defense"** shall mean reasonable and necessary legal fees, costs and expenses incurred in the investigation or defense of any **Claim**, including the costs of any appeal or appeal bond, attachment bond or similar bond (but without any obligation on the part of the **Insurer** to apply for or furnish such bonds); provided, however, **Costs of Defense** shall not include: (1) salaries, wages, overhead or benefit expenses associated with any **Insured Persons**, and (2) any amounts incurred in defense of any **Claim** which any other insurer has a duty to defend, regardless of whether or not such other insurer undertakes such duty.

- D. **"Employed Lawyer Legal Services"** shall mean legal services provided by any **Insured Person** as an attorney, but only if such services are performed for the **Organization** or any **Subsidiary** and in the **Insured Person's** capacity with the **Organization** or any **Subsidiary**. **Employed Lawyer Legal Services** shall not include legal services rendered by any **Insured Person** for any third party.
- E. **"Employment Practices Wrongful Act"** shall mean any of the following acts related to employment, but only if alleged by or on behalf of a **Claimant**:
- (1) wrongful dismissal, discharge or termination of employment, whether actual or constructive;
 - (2) misrepresentation;
 - (3) violation of employment laws;
 - (4) sexual or workplace harassment;
 - (5) discrimination;
 - (6) wrongful failure to employ or promote;
 - (7) wrongful discipline;
 - (8) wrongful deprivation of career opportunity including a wrongful failure to hire or promote;
 - (9) failure to grant tenure;
 - (10) negligent employee evaluation;
 - (11) retaliation;
 - (12) failure to provide adequate workplace or employment policies or procedures;
 - (13) defamation (including libel and slander);
 - (14) invasion of privacy;
 - (15) wrongful demotion;
 - (16) negligent reassignment;
 - (17) violation of any federal, state or local civil rights laws;
 - (18) negligent hiring;
 - (19) negligent supervision;
 - (20) negligent training;
 - (21) negligent retention; or
 - (22) acts described in (1) through (21) above arising from the use of the **Organization's** or **Subsidiary's** Internet, e-mail, telecommunication or similar systems, including the failure to provide and enforce adequate policies and procedures relating to such use of the **Organization's** or **Subsidiary's** Internet, e-mail, telecommunication or similar systems.
- F. **"Financial Insolvency"** shall mean the **Organization** becoming a Debtor in Possession, or the appointment of a receiver, conservator, liquidator, trustee, rehabilitator or similar official to control, supervise, manage or liquidate the **Organization**.
- G. **"Insured"** shall mean:
- (1) the **Organization**;
 - (2) any **Subsidiary**;
 - (3) in the event of **Financial Insolvency**, the resulting Debtor in Possession (or foreign equivalent status), if any; and
 - (4) all **Insured Persons**.
- H. **"Insured Persons"** shall mean all persons who were, now are, or shall be directors, trustees, officers, regents, governors, members of the Board of Managers, employees, leased employees, temporary or seasonal employees, interns, student teachers, substitute teachers, teaching assistants, volunteers or staff members of the **Organization** or any **Subsidiary**, including any executive board members and committee members whether salaried or not.

I. **"Loss"** shall mean settlements, judgments, pre-judgment and post-judgment interest, front and back pay, compensatory damages, punitive or exemplary damages, the multiple portion of any multiplied damage award, and subject to the provisions of Section V and VI, **Costs of Defense** incurred by the **Insured**. **Loss** shall not include:

- (1) criminal or civil fines or penalties imposed by law, or taxes (except for the 10% "excess benefit" tax assessed by the Internal Revenue Service against any **Insured Person** pursuant to 26 USC Section 4958 (a)(2));
- (2) the value of tuition or scholarships, employment related benefits, stock options, perquisites, deferred compensation or any other type of compensation earned in the course of employment or the equivalent value thereof; and
- (3) any amounts which may be deemed uninsurable under the law pursuant to which this Policy shall be construed.

It is understood and agreed that the enforceability of the foregoing coverage shall be governed by such applicable law which most favors coverage for compensatory, punitive, or exemplary damages or the multiple portion of any multiplied damage award.

J. **"Organization"** shall mean the entity named in Item 1 of the Declarations.

K. **"Outside Entity"** shall mean any not-for-profit corporation, community chest, fund or foundation that is not included in the definition of **Organization** or **Subsidiary** and that is exempt from federal income tax as an organization described in Section 501(c)(3) of the Internal Revenue Code of 1986, as amended, and any other entity organized for a religious or charitable purpose under any non-profit organization act or statute.

L. **"Personal Injury Wrongful Act"** shall mean any actual or alleged invasion of privacy, wrongful entry, eviction, false arrest, false imprisonment, malicious prosecution, libel or slander.

M. **"Policy Year"** shall mean the period of one year following the effective date and hour of this Policy or the period of one year following any anniversary date thereof falling within the **Policy Period**; or if the time between the effective date or any anniversary date and the termination of this Policy is less than one year, such lesser period. Any **Discovery Period** or **Automatic Discovery Period** shall be considered part of and not in addition to the last **Policy Year**.

N. **"Policy Period"** shall mean the period from the inception of this Policy to the expiration date stated in Item 2 of the Declarations or its earlier termination, if applicable.

O. **"Related Wrongful Acts"** shall mean **Wrongful Acts** which are causally connected by reason of any common fact, circumstance, situation, transaction, casualty, event or decision.

P. **"Subsidiary"** shall mean:

- (1) any entity which qualifies as a not-for-profit organization under the Internal Revenue Code, other than a political committee organized pursuant to Section 432 of the Federal Election Campaign Act of 1971 (and amendments thereto), and for which the **Organization** has or controls the right to elect or appoint more than fifty percent (50%) of the Board of Directors or other governing body of such entity as of the inception date of this Policy;
- (2) any similar entity which was created or acquired by the **Organization** after the inception date of this Policy, if the entity's total assets do not exceed thirty-five percent (35%) of the total consolidated assets of the **Organization** as of the inception date of this Policy; or

(3) any other entity added as a **Subsidiary** by written endorsement to this Policy.

Coverage shall apply to a **Subsidiary** only for **Wrongful Acts** allegedly committed during the time such entity qualified as a **Subsidiary**.

Q. "Third Party Wrongful Act" shall mean:

- (1) actual or alleged discrimination against a third party based upon such third party's race, color, religion, creed, age, sex, national origin, disability, pregnancy, HIV status, marital status, sexual orientation or preference, military status or other status protected pursuant to any applicable federal, state, or local statutory law; or
- (2) actual or alleged sexual harassment, including unwelcome sexual advances against, or requests for sexual favors of, a third party; or
- (3) actual or alleged civil rights violations against a third party related to (1) or (2) above.

R. "Wrongful Act" shall mean:

- (1) any of the following by the **Organization**, and/or any **Subsidiary**, and/or any **Insured Persons** acting in their capacity with the **Organization** or a **Subsidiary**:
 - (a) actual or alleged error, misstatement, misleading statement, act or omission, neglect or breach of duty;
 - (b) actual or alleged error or omission in the rendering of or the failure to render **Employed Lawyer Legal Services**;
 - (c) **Employment Practices Wrongful Act**;
 - (d) **Personal Injury Wrongful Act**; or
 - (e) **Third Party Wrongful Act**;
- (2) any matter claimed against any **Insured Person** solely by reason of their status with the **Organization** or any **Subsidiary**; or
- (3) any matter claimed against any **Insured Person** arising out of their service as directors, trustees, officers, regents, governors, or member of the Board of Managers of an **Outside Entity**, but only if such service is at the request of the **Organization** or any **Subsidiary**.

Section IV. Exclusions

This Policy does not apply to any **Claim** made against any **Insured**:

- A.** brought about or contributed to by: (1) any **Insured** gaining any profit, advantage or remuneration to which they were not legally entitled; or (2) the deliberate fraudulent or criminal acts of any **Insured**; however, this exclusion shall not apply unless it is finally adjudicated such conduct in fact occurred, nor shall it apply to coverage provided under Insuring Agreement I.B.;
- B.** to the extent it is insured in whole or in part by any other valid and collectible policy or policies, (except with respect to any excess beyond the amount or amounts of coverage under such other policy or policies), whether such other policy or policies are stated to be primary, contributory, excess, contingent, or otherwise. It is further understood and agreed that coverage for all **Claims** for **Personal Injury Wrongful Acts** shall be specifically excess of any similar coverage provided by the **Organization's** General Liability Policy.

- C. based upon, arising out of, relating to, directly or indirectly resulting from or in consequence of, or in any way involving:
- (1) any **Wrongful Act** or **Related Wrongful Act** or any fact, circumstance or situation which has been the subject of any notice or **Claim** given under any other policy of which this Policy is a renewal or replacement; or
 - (2) any civil, criminal, administrative or investigative proceeding involving any **Insured** pending as of or prior to the date stated in Item 8 of the Declarations, or any fact, circumstance or situation underlying or alleged in such proceeding;
- D. based upon, arising out of, relating to, directly or indirectly resulting from or in consequence of, or in any way involving: (1) bodily injury, sickness, disease or death of any person, assault or battery; (2) damage to or destruction of any tangible property or the loss of use of any tangible property; or (3) humiliation, mental anguish, or emotional distress; provided, however, that part (3) of this exclusion shall not apply to any **Claim** for an **Employment Practices Wrongful Act**, **Personal Injury Wrongful Act**, or **Third Party Wrongful Act**;
- E. for any actual or alleged violation by any **Insured** of the Employee Retirement Income Security Act of 1974, the National Labor Relations Act, the Worker Adjustment and Retraining Notification Act, the Consolidated Omnibus Budget Reconciliation Act of 1985, the Occupational Safety and Health Act or any rules or regulations promulgated under these acts or any similar provisions of any federal, state, local or foreign law, except a **Claim** alleging retaliation for the exercise of any rights under such laws;
- F. for any **Wrongful Act** of any **Insured Persons** in their respective capacity as a director, officer, trustee, regent, governor, member of the Board of Managers, or equivalent position of an entity other than the **Organization**, any **Subsidiary**, or **Outside Entity**;
- G. based upon, arising out of, relating to, directly or indirectly resulting from or in consequence of, or in any way involving actual or alleged seepage, pollution, radiation, emission, contamination or irritant of any kind, including but not limited to smoke, vapor, dust, fibers, mold, spores, fungi, germs, soot, fumes, acids, alkalis, asbestos, chemicals or waste of any kind, provided, however, this exclusion shall not apply to coverage provided under Insuring Agreement I.A.;
- H. by, or for the benefit of, or at the behest of the **Organization** or any **Subsidiary** or any entity which controls, is controlled by, or is under common control with the **Organization** or any **Subsidiary**, or any person or entity which succeeds to the interests of the **Organization** or any **Subsidiary**, provided, however, this exclusion shall not apply to any **Claim** brought by the receiver, conservator, liquidator, trustee, rehabilitator, examiner or similar official of the **Organization**, if any, in the event of **Financial Insolvency**;
- I. for any actual or alleged breach by the **Organization** or any **Subsidiary** of an express or implied contract, except for employment related obligations which would have attached absent such contract or agreement;
- J. other than **Costs of Defense**:
- (1) for any obligation of the **Organization** or any **Subsidiary**, as a result of a **Claim**, seeking relief or redress in any form other than money damages, including but not limited to any obligations of the **Organization** or any **Subsidiary** to modify any building or property; or

- (2) for any obligation of the **Organization** or any **Subsidiary** to pay compensation earned by any **Insured Person** in the course of employment, but not paid by the **Organization** or any **Subsidiary**, including any unpaid salary, bonus, wages, severance pay, retirement benefits, vacation days or sick days, provided, however, this exclusion shall not apply to front pay and back pay; or
- (3) for any actual or alleged violation by any **Insured** of the Fair Labor Standards Act or any similar state or local law, provided, however, this shall not apply to the Equal Pay Act. **Costs of Defense** provided pursuant to this section, J.(3), shall be subject to the FLSA Defense Sublimit of Liability stated in Item 3(d) of the Declarations, if any;

- K. for any obligations under a worker's compensation, disability benefits, insurance benefits or unemployment compensation law, or any similar law; provided, however this exclusion shall not apply to a **Claim** for an **Employment Practices Wrongful Act** involving retaliation with regard to benefits paid or payable;
- L. for the performance of or failure to perform psychological, counseling, financial counseling/advisory, legal (except **Employed Lawyer Legal Services**), arbitration, insurance or investment advisory services or referrals, if brought by or on behalf of any individual and/or entity for whom such services were, now are, or shall be performed;
- M. based upon, arising out of, relating to, directly or indirectly resulting from or in consequence of, or in any way involving infringement of any patent or misappropriation of trade secrets, provided, however, this exclusion shall not apply to copyright or trademark infringement;

With respect to this section of the Policy, no fact pertaining to or conduct by any **Insured Person** shall be imputed to any other **Insured Person**; and only facts pertaining to or conduct by any past, present, or future Executive Director, President, or Chairman of the **Organization** shall be imputed to the **Organization** or any **Subsidiary** to determine if coverage is available.

Section V. Limits of Liability and Retention

- A. The **Insurer** shall be liable to pay one hundred percent (100%) of **Loss** in excess of the Retention stated in Item 4 of the Declarations. The **Insurer's** maximum Limit of Liability for the aggregate amount of **Loss** resulting from all **Claims** deemed to have been made in a **Policy Year** shall be shown in Item 3 of the Declarations.
- B. One Retention shall apply to each and every **Claim**. More than one **Claim** involving the same **Wrongful Act** or **Related Wrongful Acts** of one or more **Insureds** shall be considered a single **Claim**, and only one Retention shall be applicable to such single **Claim**. All such **Claims**, constituting a single **Claim**, shall be deemed to have been made on the earlier of the following dates: (1) the earliest date on which any such **Claim** was first made; or (2) the earliest date on which any such **Wrongful Act** or **Related Wrongful Act** was reported under this Policy or any other policy providing similar coverage.
- C. **Costs of Defense** incurred by the **Insurer** shall be in addition to the Limit of Liability, and such **Costs of Defense** shall not be subject to the Retention amount. If **Costs of Defense** are incurred by the **Insured** with the **Insurer's** consent, such **Costs of Defense** shall be considered **Loss** and thus subject to the Limit of Liability and Retention.
- D. With respect to all **Claims** deemed to have been made in a **Policy Year**, should the Limit of Liability be exhausted by payment of **Loss** resulting from one or more of such **Claims**, the **Insurer's** duty to defend shall cease and any and all obligations of the **Insurer** hereunder shall be deemed to be completely fulfilled and extinguished and the **Insurer** shall have no further obligations.

- E. For the purposes of the application of the Retention, **Loss** applicable to Insuring Agreement I.B. includes that for which indemnification is legally permissible, regardless of whether actual indemnification is granted. The certificate of incorporation, charter or other organizational document of the **Organization**, including by-laws and resolutions, shall be deemed to require indemnification and advancement of **Loss** to the **Insured Persons** to the fullest extent permitted by law.

Section VI. Costs of Defense and Settlements

- A. The **Insureds** shall not incur **Costs of Defense**, or admit liability, offer to settle, or agree to any settlement in connection with any **Claim** without the express written consent of the **Insurer**, which consent shall not be unreasonably withheld. The **Insureds** shall provide the **Insurer** with full cooperation and all information and particulars it may reasonably request in order to reach a decision as to such consent. Any **Loss** resulting from any admission of liability, agreement to settle, or **Costs of Defense** incurred prior to the **Insurer's** consent shall not be covered hereunder.
- B. The **Insurer** has the right to investigate and settle any **Claim** as it deems expedient. If the **Insurer** recommends a settlement and the **Insured** refuses to consent thereto, the **Insurer's** liability for such **Claim** is limited to the amount in excess of the Retention, which the **Insurer** would have contributed had the **Insured** consented to the settlement, the **Costs of Defense** covered by the Policy and incurred prior to the date of such refusal to settle, and seventy percent (70%) of any additional covered **Loss**, including **Costs of Defense**, incurred subsequent to such refusal and subject to the Limit of Liability.

If the **Insured** refuses to consent to a settlement as contemplated above, **Costs of Defense** shall be subject to the Retention.

Section VII. Notice of Claim

- A. The **Insureds** shall, as a condition precedent of their rights under this Policy, give the **Insurer** notice in writing of any **Claim** made during the **Policy Period**. Such notice shall be given as soon as practicable after the date the President, Executive Director, Chief Financial Officer, General Counsel, or person with equivalent responsibility has knowledge of the **Claim**, and in no event later than ninety (90) days after the end of the **Policy Year**.
- B. If during the **Policy Period** or **Discovery Period**, any **Insured** first becomes aware of a specific **Wrongful Act** and gives notice to the **Insurer** of: (1) the specific **Wrongful Act**; (2) the injury or damage which has or may result therefrom; and (3) the circumstances by which the **Insured** first became aware thereof; then any **Claim** arising out of such **Wrongful Act** which is subsequently made against the **Insured** shall be deemed to have been made at the time the **Insurer** received such written notice from the **Insured**.
- C. In addition to furnishing the notice as provided in Section VII A or B, the **Insured** shall, as soon as practicable, provide the **Insurer** with copies of reports, investigations, pleadings and other documents in connection therewith, and shall provide all information, assistance and cooperation which the **Insurer** reasonably requests and do nothing to prejudice the **Insurer's** position or its potential or actual rights of recovery.
- D. Notice to the **Insurer** as provided in Section VII A or B shall be emailed to **ELDClaims@gaig.com** or mailed to **GREAT AMERICAN INSURANCE GROUP, EXECUTIVE LIABILITY DIVISION, CLAIMS DEPARTMENT, P.O. BOX 66943, CHICAGO, IL 60666**.

Section VIII. Coverage Extensions

A. Spousal/Domestic Partner Provision

The coverage provided by this Policy shall also apply to the lawful spouse or "Domestic Partner" of any **Insured Person**, but only for **Claims** arising out of any actual or alleged **Wrongful Acts** of any **Insured Person**. The term "Domestic Partner" shall mean any natural person qualifying as a domestic partner under the provisions of any applicable federal, state or local law.

B. Worldwide Provision

The coverage provided under this Policy shall apply worldwide. The term **Insured Persons** is deemed to include individuals who serve in equivalent positions in foreign **Subsidiaries**.

C. Estates and Legal Representatives

The coverage provided by this Policy shall also apply to the estates, heirs, legal representatives, or assigns of any **Insured Persons** in the event of their death, incapacity or bankruptcy, but only for **Claims** arising out of any actual or alleged **Wrongful Acts** of any **Insured Persons**.

D. Donor Data Loss Crisis Fund

The **Insurer** shall, subject to prior written consent, reimburse the **Organization** reasonable expenses incurred to hire an image consulting company for the purpose of reducing damage to reputation suffered by the **Organization** or any **Subsidiary** arising from donor information that is lost or stolen during the **Policy Period** and reported to the **Insurer** pursuant to the terms of this Policy, not to exceed the Donor Data Loss Crisis Fund Sublimit of Liability stated in Item 3(b) of the Declarations, if any. No Retention shall apply to this coverage extension.

Section IX. General Conditions

A. Cancellation or Non-Renewal

- (1) This Policy may be cancelled by the **Organization** at any time by written notice to the **Insurer**. In the event the **Organization** cancels this Policy for reasons other than the downgrade of the **Insurer's** rating by A.M. Best, the **Insurer** shall retain the customary short rate portion of the premium. However, if the **Organization** cancels the Policy due to a downgrade of the **Insurer's** rating to below [A-] by A.M. Best, the **Insurer** shall refund any unearned premium on a pro rata basis. Payment of any unearned premium by the **Insurer** shall not be a condition precedent of the effectiveness of cancellation but such payment shall be made as soon as practicable.
- (2) This Policy will only be cancelled by the **Insurer** if the **Organization** does not pay the premium when due.
- (3) If the **Insurer** elects not to renew this Policy, the **Insurer** shall provide the **Organization** with at least sixty (60) days advance notice thereof.

B. Proposal Form

It is agreed the particulars and statements contained in Proposal Forms submitted to the **Insurer** (and any material submitted therewith) are the representations of the **Insured** and are to be considered as incorporated in and constituting part of this Policy. It is also agreed this Policy is issued in reliance upon the truth of such representations. However, coverage shall not be excluded as a result of any untrue statement in the Proposal Form, except:

- (1) as to any **Insured Person** making such untrue statement or having knowledge of its falsity; or
- (2) as to the **Organization** and any **Subsidiary**, if the person(s) who signed the Proposal Form(s) for this coverage or any **Insured Person** who is or was a past, present or future Chief Financial Officer, President, or Executive Director of the **Organization** made such untrue statement or had knowledge of its falsity.

In no event shall Insuring Agreement I.A. of this Policy be rescinded by the **Insurer**.

C. Outside Entity Provision

In the event a **Claim** is made against any **Insured Persons** arising out of their service as a director, officer, trustee, regent, governor, or member of the Board of Managers of an **Outside Entity**, coverage as may be afforded under this Policy shall be excess of any indemnification provided by the **Outside Entity** and any insurance provided to the **Outside Entity** which covers its directors, trustees, officers, regents, governors, member of the Board of Managers, or natural person general partners.

In the event Great American Insurance Group provides Directors' and Officers' Liability Insurance for the **Outside Entity**, all **Loss** incurred from all **Claims** submitted under this Policy and the **Outside Entity's** Policy (hereinafter referred to as **Respective Policy(ies)**), arising out of **Related Wrongful Acts**, shall be considered a single **Loss** and the maximum annual aggregate Limit of Liability shall not exceed, under the **Respective Policies**, the higher Limit of Liability between the **Respective Policies**, such Limit of Liability being part of, and not in addition to, the Limits of Liability of the **Respective Policies** previously referenced.

D. Order of Payments

In the event of **Loss** arising from a covered **Claim** for which payment is due under the provisions of this Policy, the **Insurer** shall first, pay **Loss** for which coverage is provided under Insuring Agreement I.A. of this Policy; and thereafter with respect to whatever remaining amount of the Limit of Liability is available after such payment, pay such other **Loss** for which coverage is provided under any other applicable Insuring Agreements in Section I of this Policy.

E. Merger or Acquisition

If, during the **Policy Period**, the **Organization** acquires the assets of another entity, by merger or otherwise, and the acquired assets of such other entity exceed thirty-five percent (35%) of the assets of the **Organization** as of the inception date of the Policy, written notice thereof shall be given to the **Insurer** as soon as practicable, but in no event later than ninety (90) days from the effective date of the transaction, together with such information as the **Insurer** may request. Premium adjustment and coverage revisions shall be effected as may be required by the **Insurer**.

F. Conversion to Run-Off Coverage

If prior to the end of the **Policy Period**, the **Organization** merges into another organization and the **Organization** is not the surviving entity, another organization or person acquires the right to elect or appoint more than fifty percent (50%) of the Board of Directors or other governing body of the **Organization**, or the **Organization** ceases to qualify as a not-for-profit organization under any federal, provincial and territorial legislation and/or the Internal Revenue Code (such events hereinafter referred to as **Transaction**), then:

- (1) the **Organization** must give written notice of such **Transaction** to the **Insurer** within thirty (30) days after the effective date of such **Transaction**, and provide the **Insurer** with such information as the **Insurer** may deem necessary; and
- (2) this Policy, including the **Discovery Period** if elected, shall apply, but only with respect to any **Wrongful Act** committed prior to the effective date of such **Transaction**.

G. Action Against the Insurer

- (1) No action shall be taken against the **Insurer** unless, as a condition precedent thereto, there shall have been full compliance with all the terms of this Policy, and until the **Insured's** obligation to pay shall have been finally determined by an adjudication against the **Insured** or by written agreement of the **Insured**, those filing the claim, and the **Insurer**.
- (2) No person or organization shall have any right under this Policy to join the **Insurer** as a party to any **Claim** against any **Insured** nor shall the **Insurer** be impleaded by any **Insured** or their legal representative in any such **Claim**.

H. Subrogation

In the event of payment under this Policy, the **Insurer** shall be subrogated to all the **Insureds'** rights of recovery. The **Insureds** shall do everything necessary to secure such rights, including the execution of such documents necessary to enable the **Insurer** to effectively bring suit in the name of any **Insured**. In no event, however, shall the **Insurer** exercise its rights to subrogation against an **Insured Person** under this Policy unless, such **Insured Person**:

- (1) has been convicted of a deliberate criminal act, or
- (2) has been determined by a final adjudication adverse to the **Insured Person** to have committed a deliberate fraudulent act, or to have obtained any profit, advantage or remuneration to which such **Insured Person** was not legally entitled.

In the event the **Insurer** shall for any reason pay indemnifiable **Loss** on behalf of an **Insured Person**, the **Insurer** shall have the contractual right hereunder to recover from the **Organization** or any **Subsidiary** the amount of such **Loss** equal to the amount of the Retention not satisfied by the **Organization** or any **Subsidiary** and shall be subrogated to rights of the **Insured Persons** hereunder.

I. Conformity to Law

Any terms of this Policy which are in conflict with the terms of any applicable laws are hereby amended to conform to such laws.

J. Assignment

Assignment of interest under this Policy shall not bind the **Insurer** until its consent is endorsed hereon.

K. Representative of the Insurer

Great American Insurance Group, Executive Liability Division, Post Office Box 66943, Chicago, Illinois, 60666 shall act on behalf of the **Insurer** for all purposes including, but not limited to, the giving and receiving of all notices and correspondence.

L. Organization Represents Insured

By acceptance of this Policy, the **Organization** shall be designated to act on behalf of the **Insureds** for all purposes including, but not limited to, giving and receiving of all notices and correspondence, the cancellation or non-renewal of this Policy, the payment of premiums, and the receipt of any return premiums that may be due under this Policy.

M. Entire Agreement

By acceptance of this Policy, the **Insured** and the **Insurer** agree that this Policy (including the Proposal Forms submitted to the **Insurer** and any materials submitted therewith) and any written endorsements attached hereto constitute the entire agreement between the parties.

In witness whereof the **Insurer** has caused this Policy to be signed by its President and Secretary and countersigned, if required, on the Declarations page by a duly authorized agent of the **Insurer**.

GREAT AMERICAN INSURANCE COMPANY®



President



Secretary



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting
Wednesday, July 19, 2023

Agenda Item

Item 5. A. – LMRWD Gully Assessments

Prepared By

Linda Loomis, Administrator

Summary

Interns from Young Environmental Consulting Group will present findings of the gully assessment work they have done.

Attachments

No attachments

Recommended Action

No action recommended



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting

Wednesday, July 19, 2023

Agenda Item

Item 5. B. - 2024 LMRWD Budget Discussion

Prepared By

Linda Loomis, Administrator

Summary

A proposed 2024 Budget is attached for the Managers review. It is based on the plan amendment that was adopted by the LMRWD Board of Managers in 2022.

A change was made to the maximum amount of the administrative levy that watershed districts can adopt. In 2023, the maximum amount was changed to 0.096 percent of the estimated market value (EMV) up to \$500,000, whichever is less. Prior to this change it was .048 percent of the EMV up to \$250,000 whichever is less.

The CIP Table that is usually provided is not ready to share with the Board. Information has been received from David Drown and Associates providing the cost of issuing bonds. One scenario is for a bond issue of \$2,250,000 (assuming the City of Eden Prairie contributes \$500,000). The second scenario is assuming a bond issue of \$2,750,000 – the entire match required to receive state funds.

Since this information is late getting to the Board staff recommends that the item be tabled to the August Board meeting.

The Board of Managers is required to hold a public hearing when the levy is certified. The Public hearing can be held in September, which allows time to get the Counties the information necessary for levy certification. Any question the Board may have can be asked, before the item is tabled. That will allow staff to get information pulled together for the August meeting, if the questions can't be answered at this meeting.

Attachments

2023 Estimated Taxable Market Values for Waters Districts from Melissa King, Water Programs Coordinator, BWSR dated July 13, 2023

Certification of apportioned Levies Payable 2024 – LMRWD

Proposed Levy 2024 Worksheet

2024 Proposed Preliminary Budget

2024 Proposed Administrative Budget

2024 Budget line-item explanation

Recommended Action

Motion to Table Item 5. B. – 2024 LMRWD Budget Discussion to the August 16, 2023 Board meeting.

i. Financing of Area #3

The LMRWD has received information that may give the Board an idea of the cost to taxpayers to fund the match required for the State Funds awarded to the LMRWD for Area #3. Staff is recommending this item be table along with

the Budget, so that Manager can have more time to look at the information and develop questions before deciding which approach to fund the match to chose.

Scott County has provided a “What if” table that shows the impact of the LMRWD levy on different market values throughout Scott County. The percentages will likely be similar in other counties.

David Drown has provided two scenarios for issuing bonds. One issue to consider when issuing bonds, audited financials must be available so the bonds can be rated. Mr. Shannon Sweeney of David Drown has said that if the audit is complete by the end of the year, the LMRWD should be able to sell bonds in 2024.

And lastly a Proposed Levy 2024 worksheet is attached showing a one-time levy of both \$2,250,000 and \$2,750,000.

Attachments

Scott County What if Table

LMRWD \$2,355,000 GO Bonds 2024A Preliminary Cash-Flow

LMRWD \$2,865.000 GO Bonds 2024A Preliminary Cash -Flow

Proposed Levy 2024A Worksheet - \$2,750,000

Proposed Levy 2024B Worksheet - \$2,250,000

Recommended Action

Motion to this Item to the August 16, 2023 Board meeting.

Memo

Date: July 13, 2023

To: Watershed District Administrators and Managers

From: Melissa King, Water Programs Coordinator

Cc: Jan Voit, Minnesota Watersheds
Rob Sip, Red River Watershed Management Board
BWSR: John Jaschke, Andrea Fish, Justin Hanson, Dave Weirens, Amie Wunderlich, Regional Operations Staff

RE: 2023 Estimated Taxable Market Values for Watershed Districts

Please find attached a table containing the recently released total estimate market values for 2023 from the Minnesota Department of Revenue.

Session law changes enacted during the 2023 regular session effected the calculation of and increased the annual maximum general fund tax levy for a watershed district ([Minn. Stat. § 103D.905, Subd. 3](#)). The session law changes are effective beginning with the 2024 assessment year and thereafter. To calculate the annual maximum general fund tax levy for a particular watershed district:

- Multiply the estimated market value listed in the enclosed table for the watershed district by 0.096 percent (0.00096)
- Compare that calculated value to the maximum general fund levy limit of \$500,000
- Use whichever value is less

Please contact me if you have any questions.

Melissa King

Melissa.king@state.mn.us

651.350.8845

Attachment: Taxes Payable 2023 Estimated & Taxable Market Values for Watershed Districts in Minnesota

TAXES PAYABLE 2023**ESTIMATED & TAXABLE MARKET VALUES (EMV) FOR WATERSHEDS DISTRICTS IN MINNESOTA**

Watershed Code	Watershed Name	Total EMV
001	Bear Valley Watershed District	\$ 258,627,300
002	Cedar River Watershed District	\$ 3,908,802,900
003	Belle Creek Watershed District	\$ 471,829,000
005	Buffalo Creek Watershed District	\$ 2,904,328,200
007	Buffalo-Red River Watershed District	\$ 10,495,228,500
008	North Fork Crow River Watershed District	\$ 1,878,253,900
009	Clearwater River Watershed District	\$ 2,271,825,000
010	Carnelian-Marine-St. Croix Watershed District	\$ 2,445,764,300
013	Coon Creek Watershed District	\$ 23,234,183,700
014	South Washington Watershed District	\$ 18,738,687,700
015	Cormorant Lakes Watershed District	\$ 815,308,600
016	Crooked Creek Watershed District	\$ 464,753,900
018	High Island Watershed District	\$ 1,488,152,700
020	Joe River Watershed District	\$ 269,569,600
021	Kanaranzi-Little Rock Watershed District	\$ 1,983,562,100
022	Lac qui Parle-Yellow Bank Watershed District	\$ 3,455,319,000
024	Heron Lake Watershed District	\$ 2,846,205,600
026	Middle-Snake-Tamarac Rivers Watershed District	\$ 3,273,341,600
028	Okabena-Ocheda Watershed District	\$ 1,214,980,200
030	Pelican River Watershed District	\$ 2,945,172,600
031	Bois De Sioux Watershed District	\$ 4,866,130,600
032	Prior Lake-Spring Lake Watershed District	\$ 6,176,616,700
034	Ramsey-Washington Metropolitan Watershed District	\$ 22,694,883,500
036	Red Lake Watershed District	\$ 10,207,837,200
038	Rice Creek Watershed District	\$ 32,221,576,200
040	Roseau River Watershed District	\$ 983,135,200
042	Sand Hill Watershed District	\$ 1,311,050,000
043	Sauk River Watershed District	\$ 11,382,792,800
044	Stockton-Rollingstone-Minnesota City Watershed District	\$ 652,935,100
048	Turtle Creek Watershed District	\$ 1,631,814,400
050	The Two Rivers Watershed District	\$ 1,955,465,400
052	Upper Minnesota River Watershed District	\$ 1,663,890,300
054	Valley Branch Watershed District	\$ 7,137,574,300
056	Warroad Watershed District	\$ 524,402,400
058	Nine Mile Creek Watershed District	\$ 26,283,107,200
060	Lower Minnesota River Watershed District	\$ 14,235,035,200
062	Minnehaha Creek Watershed District	\$ 71,544,099,300
064	Riley-Purgatory-Bluff Creek Watershed District	\$ 19,657,603,300
066	Wild Rice Watershed District	\$ 4,529,204,500
068	Yellow Medicine River Watershed District	\$ 3,068,303,900
069	Browns Creek Watershed District	\$ 2,681,502,500
070	Capitol Region Watershed District	\$ 29,215,629,200
071	Comfort Lake-Forest Lake Watershed District	\$ 2,975,872,700
073	Shell Rock River Watershed District	\$ 2,694,855,600
074	Middle Fork-Crow River Watershed District	\$ 2,392,722,300

SOURCE: Minnesota Department of Revenue 2023 PRISM SUBMISSION #3 - FINAL ASSESSMENT AND TAXATION

District 060 - Lower Minnesota River Watershed District
CERTIFICATION OF APPORTIONED LEVIES
PAYABLE 2024

(1) Payable 2024 Property Tax Levy: \$ _____

County	(2) Payable 2023 Taxable Net Tax Capacity	(3) Net Tax Capacity Percent Distribution	(4) Apportioned Payable 2024 Levy (1X3)
Carver	9,950,849	6.5269%	
Dakota	14,630,670	9.5964%	
Hennepin	61,431,976	40.2938%	
Scott	66,446,544	43.5829%	
Watershed Total	152,460,039	100.0000%	-- N/A --

Signature of Budget Officer

Title

Date

Proposed Levy 2024

General Fund	250,000.00
Planning and Implementation Fund	525,000.00
One time levy to balance channel fund	-

Apportioned Payable 2024 Levy 775,000.00

<u>County</u>	<u>Net Tax Capacity % Distribution</u>	<u>Apportioned Payable 2024 Levy</u>
Carver	6.5269%	50,583.48
Dakota	9.5964%	74,372.10
Hennepin	40.2938%	312,276.95
Scott	43.5829%	337,767.48
Watershed Total	100.0000%	775,000.00

2024 proposed LMRWD Budget for Administration Operations

2022 Adopted Budget/2022 Actuals/2023 Adopted/ 2023 YTD/2023 Projected/2024 Proposed

	Account	Adopted 2022	2022 Actuals	2023 Adopted	2023 Actual YTD	Projected 2023	Proposed 2024
	Revenues:						
	General Property Tax						
1	Carver County	\$ 41,762.17	\$ 41,597.27	\$ 42,871.43	\$ 525.25	\$ 46,207.83	\$ 50,583.48
2	Dakota County	\$ 72,153.45	\$ 72,519.30	\$ 72,959.65	\$ 2,342.37	\$ 76,427.40	\$ 74,372.10
3	Hennepin County	\$ 306,964.28	\$ 303,846.27	\$ 318,293.13	\$ 1,385.65	\$ 314,054.03	\$ 312,276.95
4	Scott County	\$ 304,120.10	\$ 301,586.70	\$ 290,875.80	\$ 179,046.40	\$ 338,310.75	\$ 337,767.48
	Total Levy:	\$ 725,000.00	\$ 719,549.54	\$ 725,000.01	\$ 183,299.67	\$ 775,000.01	\$ 775,000.00
5	Interest Income	\$ -	\$ 20,117.41	\$ -	\$ 29,105.01	\$ -	\$ -
6	MCES WOMP Grant	\$ 5,000.00	\$ 1,000.00	\$ 5,000.00	\$ 4,500.00	\$ 45,000.00	\$ 4,500.00
7	State of MN Grant for Dredge Material Management	\$ 240,000.00	\$ 240,000.00	\$ 240,000.00	\$ 240,000.00	\$ 240,000.00	\$ 240,000.00
8	Metro-Area Watershed Based funding grants	\$ -	\$ -	\$ -	\$ 91,021.00	\$ 91,021.00	\$ -
9	License Revenue from placement of dredge	\$ 25,000.00	\$ 29,036.00	\$ 25,000.00	\$ -	\$ 25,000.00	\$ 25,000.00
10	Revenues from sale of dredge material	\$ 5,000.00	\$ -	\$ 5,000.00	\$ -	\$ 5,000.00	\$ 5,000.00
11	Permit Fees	\$ -	\$ 14,000.00	\$ -	\$ 3,050.00	\$ 3,050.00	\$ -
12	Miscellaneous Income	\$ -	\$ 2,829.08	\$ -	\$ 708.08	\$ -	\$ -
	Total Revenues:	\$1,000,000.00	\$ 1,026,532.03	\$1,000,000.01	\$551,683.76	\$ 1,184,071.01	\$ 1,049,500.00
	Expenses:						
13	Administration (from Administrative Budget Page)	\$ 250,000.00	\$ 370,977.11	\$ 250,000.00	\$ 144,706.85	\$ 250,000.00	\$ 390,338.00
	Cooperative Projects						
14	Eden Prairie Bank Stabilization -Area #3	\$ 100,000.00	\$ 91,603.35	\$ -	\$ 84,816.65	\$ 84,816.65	\$ 100,000.00
16	Gully Erosion Contingency	\$ -	\$ 4,395.65	\$ -	\$ -	\$ -	\$ -
17	Riley Creek Cooperative Project with RPBCWD	\$ -	\$ 150,000.00	\$ -	\$ -	\$ -	\$ -
18	Seminary Fen Ravine Restoration site B	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000.00
19	Seminary Fen Ravine C-2	\$ -	\$ 20,000.00	\$ 20,000.00	\$ -	\$ 20,000.00	\$ 40,000.00
20	Eagle Creek Bank Restoration Town & Country RV Park Study	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,000.00
21	Shakopee River bank Stabilization Project	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000.00
	509 Plan Budget						
	Resource Plan Implementation						
22	Watershed Resource Restoration Fund	\$ 120,000.00	\$ 142,500.00	\$ 100,000.00	\$ -	\$ 100,000.00	\$ 100,000.00
23	Fen Private Land Acquisition Study	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000.00
24	Gully Inventory	\$ -	\$ 5,830.50	\$ 90,500.00	\$ 11,940.00	\$ 90,500.00	\$ 150,000.00
25	Minnesota River Corridor Management Project	\$ -	\$ 38,902.28	\$ -	\$ -	\$ -	\$ -
26	Gun Clun Fen Intrusion Investigation		\$ 34,542.73	\$ -	\$ -	\$ -	
27	Assumption Creek Hydrology Restoration Project	\$ -	\$ 2,125.50	\$ -	\$ -	\$ -	\$ -
28	Groundwater Screening Tool Model	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
29	Minnesota River Floodplain Model Feasibility Study	\$ -	\$ 13,301.32	\$ 75,000.00	\$ 6,601.25	\$ 75,000.00	\$ -
30	Schroeder's Acres Park/Savage Fen Stormwater Management P	\$ -	\$ 53,768.61	\$ -	\$ -	\$ -	\$ -
31	Downtown Shakopee Stormwater BMPs	\$ 50,000.00	\$ 25,000.00	\$ 50,000.00	\$ -	\$ 50,000.00	\$ 50,000.00
32	PLOC Realignment/Wetland Restoration	\$ 30,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
33	Spring Creek Project	\$ -	\$ 12,336.30	\$ 90,000.00	\$ 1,143.75	\$ 90,000.00	\$ 100,000.00
34	West Chaska Creek Project	\$ -	\$ 27,441.00	\$ -	\$ -	\$ -	\$ -
35	Sustainable Lakes Management Plan (Trout Lakes)	\$ 50,000.00	\$ -	\$ -	\$ -	\$ -	\$ 50,000.00
36	Geomorphpic Assessments (Trout Streams)	\$ -	\$ 9,913.85	\$ -	\$ -	\$ -	\$ 100,000.00
37	Fen Stewardship Program	\$ 25,000.00	\$ 47,671.03	\$ 75,000.00	\$ 40,656.75	\$ 75,000.00	\$ 75,000.00
38	District Boundary Modification Project	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
39	East Chaska Creek Bank Stabilization Project	\$ -	\$ 4,526.32	\$ -	\$ -	\$ -	\$ -
40	Minnesota River Sediment Reduction Strategy	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
41	Local Water Management Plan reviews	\$ 5,000.00	\$ 9,538.31	\$ 5,000.00	\$ 31.25	\$ 5,000.00	\$ 5,000.00
42	Project Reviews	\$ 75,000.00	\$ 239,647.69	\$ 50,000.00	\$ 62,365.56	\$ 50,000.00	\$ 50,000.00
43	Monitoring	\$ 75,000.00	\$ 43,965.84	\$ 75,000.00	\$ 35,740.94	\$ 75,000.00	\$ 75,000.00
44	Watershed Management Plan						
45	Next Generation Watershed Management Plan	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
46	Plan Clarification and proposed rules/Rule implementation	\$ -	\$ -	\$ -	\$ 12,729.25	\$ 12,729.25	\$ -
47	Plan Amendment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
48	Vegetation Management Standard/Plan	\$ -	\$ -		\$ -	\$ -	\$ -
49	Public Education/Citizen Advisory Committee/Outreach Program	\$ 75,000.00	\$ 69,142.44	\$ 85,000.00	\$ 43,628.74	\$ 85,000.00	\$ 85,000.00
50	Cost Share Program	\$ 20,000.00	\$ 20,606.43	\$ 20,000.00	\$ 619.00	\$ 20,000.00	\$ 20,000.00
	Nine Foot Channel						
51	Dredge site operations	\$ 240,000.00	\$ 16,132.25	\$ 240,000.00	\$ 220,461.47	\$ 240,000.00	\$ 240,000.00
52	Dredge Site Restoration	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
53	Total Non-adminsitrative Expenses:	\$ 865,000.00	\$ 1,082,891.40	\$ 975,500.00	\$ 520,734.61	\$ 1,073,045.90	\$ 1,420,000.00
54	Total Administrative Expenses (from line 13)	\$ 250,000.00	\$ 370,977.11	\$ 250,000.00	\$ 144,706.85	\$ 250,000.00	\$ 390,338.00
55	Total Expenses	\$ 1,115,000.00	\$ 1,453,868.51	\$ 1,225,500.00	\$ 665,441.46	\$ 1,323,045.90	\$ 1,810,338.00
56	Revenue less Expenses	\$ (115,000.00)	\$ (427,336.48)	\$ (225,499.99)	\$ (113,757.70)	\$ (138,974.89)	\$ (760,838.00)
57	Beginning Fund Balance - January 1		\$ 1,953,659.65		\$ 1,376,420.36		\$ 1,262,662.66
58	Total Revenue		\$1,026,532.03		\$551,683.76		\$ 1,049,500.00
59	Total Expenses		\$ (1,453,868.51)		\$ (665,441.46)		\$ (1,810,338.00)
60	Ending Fund Balance - December 31 (bold figures are projected)	\$ 1,953,659.65	\$ 1,526,323.17	\$ 1,376,420.36	\$ 1,262,662.66		\$ 501,824.66

2024 proposed LMRWD Budget for Administration Operations
2022 Adopted Budget/2022 Actuals/2023 Adopted/ 2023 YTD/2023 Projected/2024 Proposed

Account	Adopted 2022	2022 Actual	Adopted 2023	YTD 2023	Projected 2023	Proposed 2024
Expenses:		(unaudited)		(Through 6/30/23)		
61 Wages-General	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
62 Severance Allowance	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
63 Benefits	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
64 PERA Expense	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
65 Payroll Tax (FICA/Medicare)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
66 Unemployment compensation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
67 Manager Per Diem	\$ 11,250.00	\$ 6,625.00	\$ 11,250.00	\$ 4,500.00	\$ 11,250.00	\$ 15,000.00
68 Manager Expense (mileage/food/registrations)	\$ 3,000.00	\$ 1,293.43	\$ 3,000.00	\$ 549.20	\$ 3,000.00	\$ 4,500.00
69 Telecommunications-Cell-Internet/Phone	\$ 1,000.00	\$ -	\$ 1,000.00	\$ -	\$ 1,000.00	\$ 1,000.00
70 Office Supplies	\$ 300.00	\$ 93.19	\$ 300.00	\$ 97.28	\$ 300.00	\$ 300.00
71 Meeting Supplies/Expense	\$ 100.00	\$ -	\$ 100.00	\$ 74.27	\$ 100.00	\$ 100.00
72 Rent	\$ 7,800.00	\$ 7,800.00	\$ 7,800.00	\$ 4,550.00	\$ 7,800.00	\$ 7,800.00
73 Dues	\$ 7,500.00	\$ -	\$ 7,500.00	\$ -	\$ -	\$ 12,500.00
74 Miscellaneous-General	\$ 3,000.00	\$ 2,551.00	\$ 3,000.00	\$ 1,109.25	\$ 3,000.00	\$ 3,000.00
75 Training & Education	\$ 1,500.00	\$ 600.00	\$ 1,500.00	\$ 50.00	\$ 1,500.00	\$ 1,500.00
76 Insurance & Bonds	\$ 11,000.00	\$ 10,709.00	\$ 11,000.00	\$ 180.00	\$ 11,000.00	\$ 12,000.00
77 Postage	\$ 375.00	\$ 47.68	\$ 375.00	\$ -	\$ 375.00	\$ 300.00
78 Photocopying	\$ 875.00	\$ 355.98	\$ 875.00	\$ 169.27	\$ 875.00	\$ 750.00
79 Legal Notices-General	\$ 1,500.00	\$ 2,700.20	\$ 1,500.00	\$ -	\$ 1,500.00	\$ 2,000.00
80 Subscriptions & License Fees	\$ 250.00	\$ 355.42	\$ 250.00	\$ 323.06	\$ 250.00	\$ 400.00
81 Mileage	\$ 5,000.00	\$ 2,013.72	\$ 5,000.00	\$ 928.55	\$ 5,000.00	\$ 5,000.00
82 Taxable meal reimbursement	\$ 500.00	\$ -	\$ 500.00	\$ -	\$ 500.00	\$ 500.00
83 Lodging/ Staff Travel	\$ 1,500.00	\$ -	\$ 1,500.00	\$ -	\$ 1,500.00	\$ 1,500.00
84 Accounting/Financial Services	\$ 5,382.00	\$ 29,523.84	\$ 5,580.00	\$ 16,936.26	\$ 5,580.00	\$ 25,438.00
85 Audit Fees	\$ 15,000.00	\$ 17,841.00	\$ 15,000.00	\$ 240.00	\$ 15,000.00	\$ 30,000.00
86 Professional Services-General	\$ 120,168.00	\$ 130,762.50	\$ 104,970.00	\$ 53,718.75	\$ 104,970.00	\$ 153,000.00
87 Legal Fees-General	\$ 10,000.00	\$ 13,162.98	\$ 10,000.00	\$ 6,545.00	\$ 10,000.00	\$ 15,000.00
88 Engineering-General	\$ 20,000.00	\$ 121,966.48	\$ 35,000.00	\$ 46,854.75	\$ 42,500.00	\$ 75,000.00
89 Equipment-Maintenance	\$ 500.00	\$ 508.02	\$ 500.00	\$ 205.93	\$ 500.00	\$ 500.00
90 Equipment-Lease	\$ 2,500.00	\$ 2,067.63	\$ 2,500.00	\$ 1,008.60	\$ 2,500.00	\$ 2,500.00
91 Lobbying	\$ 20,000.00	\$ 20,000.04	\$ 20,000.00	\$ 6,666.68	\$ 20,000.00	\$ 20,000.00
92 Bank fees and charges	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 750.00
93 Total Expense for Administration:	\$ 250,000.00	\$ 370,977.11	\$ 250,000.00	\$ 144,706.85	\$ 250,000.00	\$ 390,338.00

2024 Budget Explanation of line items

Project funding proposed in the 2024 Budget is taken from Table 4-1 Implementation Program Budget found in Section 4 of the LMRWD Watershed Management Plan (as revised in 2022).
Explanations for certain lines follow.

Line #	Cooperative Projects
	<i>Cooperative Projects are those projects that are intended to be completed by the LMRWD with other partners</i>
14	Eden Prairie Bank Stabilization - Area #3 The goal is to have permits in hand and bid this project in early 2024. The LMRWD received state funds to construct this project and will need to match state funds in an amount equal to the state's contribution. The City of Eden Prairie has indicated it will contribute \$500,000 to the project. The LMRWD has applied for a \$50,000 grant from Hennepin County.
18-19	Seminary Fen Ravine B and Ravine C-2 The City of Chaska provided plans to address several ravine that are actively discharging sediment into the Seminary Fen Wetland Complex. The ravines were labeled A, B And C-2. This project will conduct studies of ravine identified to estimate the sediment contribution to the Seminary Fen and provide approaches and cost estimates for correcting the erosion problems. The LMRWD and the City of Chaska plan to meet to determine the projects for next year and the preliminary will be adjusted accordingly after the meeting.
20	Eagle Creek Bank Restoration Town & Country RV Park Feasibility Study This project is a result of the municipal coordination meeting between the LMRWD and the City of Savage. Signs of hillslope failure have been observed near the campground on the Main Branch of Eagle Creek which is an added environmental stressor on the stream. The District will assess the eroding banks at the campground and determine the urgency for stabilization on Eagle Creek The District will develop a design and stabilize the hillslope failure near the campground on Main Branch of Eagle Creek to reduce sedimentation to the creek.
21	Shakopee Riverbank Stabilization Project This project is a result of the municipal coordination meeting between the LMRWD and the City of Shakopee. This project will include stabilizing sections of the Minnesota River riverbank that are eroding along the City of Shakopee's parallel trunk sanitary sewer line that flows to L-16 and other storm sewer outlets. This is a contribution to the City's plans to stabilize the MN Riverbank from Huber Park downstream to The Landing. The City has received funds from the Federal Government and the State of Minnesota.
	509 Plan Budget
22	Watershed Resource Restoration Fund This fund implements Goals 2 and 3, which are to protect, improve and restore surface water and ground water quality within the District. This program will fund projects sponsored by LGUs and were not identified at the time the Plan was adopted and/or updated. In 2022, the LMRWD Board of Managers accepted a request from the City of Burnsville to partner on the stabilization of a ravine along Willow Creek. \$67,500 of this line was used for that project. This fund was also used to contribute \$75,000 to the City of Carver to develop plans for the City's levee improvement project, needed to apply for funding from the State of Minnesota. The Board recently approved a request from the City of Eagan to share in the cost to address a ravine that concentrated flows of stormwater have created. Table 4-1 in the revised Plan has allocated \$100,000 to this fund.
23	Fen Private Land Acquisition Study To preserve and protect fens in the District in perpetuity, the District will map and assess the values of adjacent private properties to each fen and work with corresponding municipalities, to consider opportunities to purchase private fen land for conservation. If land acquisition is not feasible, the District will consider opportunities to develop

2024 Budget Explanation of line items

	agreements with private property owners to ensure management of each fen is consistent and comprehensive.
24	Gully Inventory The gully inventory and condition assessment is an ongoing project. The LMRWD intends to periodically inspect gullies and ravines to assess threats posed and the rate of erosion. The LMRWD will prioritize gullies and ravine based on the inspections and develop a plan to stabilize the highest priority gullies. The LMRWD has asked BWSR to consider supporting use of dredge management funds to stabilize high priority gullies and ravines.
31	Downtown Shakopee Stormwater BMPs The City of Shakopee conducted a study of Downtown Shakopee stormwater and recommended several projects to treat stormwater that currently reaches the MN River untreated. One project, the Lewis Street West/2 nd Avenue West Parking Lot was chosen to receive funding in the amount of \$77,068, through BWSR's Watershed Based Implementation Funding program. The 2022 LMRWD budget included \$50,000 for the feasibility report, which came in under budget and the \$50,000 from the LMRWD was not needed to complete the feasibility study. The City of Shakopee they can scale the effectiveness of the BMP to the funding available. The total cost of the project is estimated at over \$2,000,000. \$50,000 was included in the 2023 budget. An additional \$50,000 is contained in Table 4-1 2024 Budget as revised. This would make \$150,000 eligible to the City to complete the project.
33	Spring Creek Project Site 1 and Site 2 along Spring Creek will be stabilized using the Carver SWCD's designs (increased riprap size and standard gradation recommended). An analysis of vegetation along Spring is included as part of this project. The creek will be prone to further erosion without the added protection of adequate vegetation. Vegetation management (e.g., removal of invasives, native plantings, etc.), particularly in the floodplain and channel banks, will be important to ensure the integrity of the stabilization.
35	Sustainable Lakes Management Plan (Trout Lakes) Implementation In 2019, the District developed Sustainable Lake Management Plans (SLMPs) for trout lakes within its boundary. Going forward, the District plans to implement the recommended management strategies from the SLMPs, such as routine vegetation surveys and temperature profiling.
36	Geomorphic Assessments (Trout Streams) The trout streams geomorphic assessments will consider changes in trout stream alignment, baseflow, geometry, and selected stream reaches since the last assessment. Stream width-to-depth ratios, stream bed slope, meander pattern, and other bed features shall be modeled according to a stable reference reach. Reference reaches are nearby, hydrologically, and geomorphically stable stream segments. A reference reach could be upstream or downstream, or in a nearby watershed. This assessment is generally considered twice during the Plan cycle, once every 5 years.
37	Fen Stewardship Program The District, in partnership with the DNR and Metropolitan Council, will develop a fen stewardship program for the District's fens. The effort will review historical data, assess current conditions, and develop a road map for restoration, preservation, and protection of the District's fens. Management plans or sustainability reports will be developed for all fens (starting with Seminary Fen and Savage Fen) to effectively manage and protect these groundwater-dependent resources.
41	Local Water Management Plan Reviews The LMRWD is responsible for reviewing and approving local surface water management plans for all cities within the boundaries of the LMRWD. Several Cities LSWMP have not yet been reviewed by the LMRWD and other cities are revising or amending Plans. The LMRWD also reviews the plans to assure they are in conformance with the LMRWD standards.

2024 Budget Explanation of line items

42	<p>Project Reviews</p> <p>This item includes costs incurred by the LMRWD to review non-LMRWD projects in cities that have either opted to have the LMRWD review projects or have not yet received a Municipal permit.</p> <p>Eden Prairie and Chaska have opted to have the LMRWD review projects within the boundaries of the LMRWD. The LMRWD is also responsible for reviewing MNDOT, and MAC (Metropolitan Airport Commission) projects and for the unincorporated areas of the District. Savage intends to apply for a municipal permit but has not yet been approved. In Shakopee and Bloomington, the LMRWD will continue to review project in the floodplain and High Value Resource areas. The LMRWD collects permit fees on private projects, but fees do not entirely offset the cost of reviews.</p>
43	<p>Monitoring</p> <p>The District will continue to perform water quantity and quality monitoring of resources within the boundaries of the District. The District's Monitoring Plan will be updated to include the geochemistry recommendations from the Fens Sustainability Gaps Analysis report and the monitoring parameter recommendations from the Quarry Lake Sustainable Lake Management Plan report.</p> <p>Over the past few years, the District has collected a large quantity of water quality data. The Plan includes a preliminary assessment of lake water quality data. However, the last comprehensive data evaluation was completed in 2000. Periodic data evaluations are necessary to convert data into information that decision makers can use. Data collected for each water resource will be evaluated on a 3-year or 5-year cycle. As part of Strategy 1.3.1, all water resources within the watershed will be evaluated. An outcome of Strategy 1.3.1 will be groupings of water resources into High, Medium, and Low categories for detailed data assessments and timetables formulated for each category.</p>
49	<p>Public Education/CAC/Outreach Program</p> <p>The 2023 projected costs the LMRWD plans to spend on public education include</p> <ul style="list-style-type: none"> • Citizen Advisory Committee (CAC).....\$14,250.00 • District Signage.....\$9,000.00 • 2School Engagement/Mini-grant Program\$11,000.00 • Community Outreach & Engagement..... \$10,500.00 • LMRWD website update/maintenance.....\$17,700.00 • Sponsor Minnesota River Congress.....\$400.00 • MN River Boat Tour/engagement activity.....\$7,500.00 • Sponsorship of Salt Symposium and Water Summit.....\$500.00 • Sponsor Metro Children's Water Festival..... \$1,650.00 • Social Media.....\$12,500.00 TOTAL:.....\$85,000.00
	Nine Foot Channel
51	<p>Dredge Operations/Restoration</p> <p>The District will continue its role as the local sponsor responsible for providing placement sites for the Army Corps of Engineers. The purpose is to place dredge material from the Minnesota River and maintain a 9-foot-deep river channel. This program includes the identification of locations to temporarily store dredge material from the river, private dredge spoil disposal and transfer, and other beneficial uses of the dredge material.</p>
Line #	Administrative Budget
Note	<p>The 2023 Legislature increased the amount that can be levied to cover administrative expenses. The new formula is calculated as follows:</p> <ul style="list-style-type: none"> • Multiply the estimated market value listed in the enclosed table for the watershed district by 0.096 percent (0.00096) • Compare that calculated value to the maximum general fund levy limit of \$500,000.

2024 Budget Explanation of line items

	<ul style="list-style-type: none"> Use whichever value is less. <p>See the attached memo and Estimated & Taxable Market Values (EMV) table Payable 2023</p>
67	<p>Manager Per Diem</p> <p>This amount is calculated for 5 Managers, using a per diem of \$125/meeting and 2 meetings per month per manager.</p>
73	<p>Dues</p> <p>MAWD dues were included at \$12,500. Staff is recommending that the dues for membership in Minnesota Watersheds be included in the budget.</p>
84	<p>Accounting /Financial Services</p> <p>In 2022, Clifton Larson Allen began providing financial/accounting services to the LMRWD. The amount in this line item reflects the amount in the Professional Services Agreement between the LMRWD and CLA.</p>
85	<p>Audit Fees</p> <p>In 2022, the LMRWD retained the services of Global Portfolio Consulting to provide audit services. Global Portfolio Consulting withdrew from the engagement in 2023, without completing the 2021 or 2022 financial audits. Redpath and Company has agreed to perform a two-year audit covering FY 2021 and 2022 at a price of 8\$25,000 per year. Redpath has said that is the going rate for audits currently. The LMRWD is issuing a Request for Proposals for Audit Services for FY 2023 and 2024. The RFP has not yet been issued.</p>
86	<p>Professional Services General</p> <p>This line is for administrative services provided to the LMRWD by Naiad Consulting LLC and occasionally other consultants retained by the LMRWD. Naiad Consulting has not increased rates for administrative services since 2019. At that time the hourly rate went from \$65/hour to \$75/hour. The 2024 budget reflects 150 hours per month at \$85/per hour.</p>
88	<p>Engineering</p> <p>This line has been increased to better reflect the actual cost of general engineering expenses. Costs incurred by the District that are charged to this line include preparation for monthly board meeting, Board meeting attendance by technical and engineering staff.</p>
92	<p>Bank Fees and Charges</p> <p>This line has been added to the Budget to reflect the fees charged by US Bank and the 4M Fund. Previously these fees have been charged to the accounting/financial services budget.</p>

\$2,355,000
General Obligation Bonds, Series 2024A

Uses of Funds

River Bank Stabilization Project		5,500,000.00
Other		-
Total Project Costs		5,500,000.00
Underwriter's Discount Allowance	0.000%	-
Unused Underwriter's Discount Allowance		-
Fiscal Fee		19,000.00
Bond Counsel		13,500.00
Paying Agent		1,500.00
Printing & Misc		2,000.00
Rating Agency		14,000.00
Capitalized Interest		66,398.75
Accrued Interest		-
Rounding		-
		<u>5,616,398.75</u>

Sources of Funds

Bond Issue	2,355,000.00
Construction Fund Earnings	11,398.75
State Appropriation & Eden Prairie Contribution	<u>3,250,000.00</u>
	<u>5,616,398.75</u>

Payment Schedule & Cashflow

<i>Payment Schedule</i>					
12-Month Period ending	Principal	Interest Rate	Interest	Payment Total	plus 5% Coverage
3/1/2024	-		-	-	
2/1/2025	-	3.25%	66,398.75	66,398.75	66,399
2/1/2026	205,000	3.10%	72,435.00	277,435.00	291,307
2/1/2027	210,000	3.00%	66,080.00	276,080.00	289,884
2/1/2028	220,000	3.00%	59,780.00	279,780.00	293,769
2/1/2029	225,000	3.00%	53,180.00	278,180.00	292,089
2/1/2030	230,000	3.00%	46,430.00	276,430.00	290,252
2/1/2031	240,000	3.00%	39,530.00	279,530.00	293,507
2/1/2032	245,000	3.00%	32,330.00	277,330.00	291,197
2/1/2033	250,000	3.10%	24,980.00	274,980.00	288,729
2/1/2034	260,000	3.20%	17,230.00	277,230.00	291,092
2/1/2035	270,000	3.30%	8,910.00	278,910.00	292,856
	<u>2,355,000</u>		<u>487,283.75</u>	<u>2,842,283.75</u>	<u>2,981,078</u>

Bond Details

Set Sale Date	1/17/2024
Sale Date	2/21/2024
Dated Date	3/1/2024
Closing Date	3/1/2024
1st Interest Payment	2/1/2025
Proceeds spent by:	12/31/2025
	<i>to Dated Date</i>
Purchase Price	2,355,000.00
Net Interest Cost	487,283.75
Net Effective Rate	3.1059%
Average Coupon	3.1059%
Yield	4.3089%
Average Life	6.662
Call Option	2/1/2032
Purchaser	Preliminary
Bond Counsel	Taft
Pay Agent	U.S. Bank, N.A.
Tax Status	Tax Exempt, Bank Qualified
Continuing Disclosure	Limited
Rebate	Subject to Rebate
Statutory Authority	M.S. 103B, 103D, & 475

<i>Pledged Revenues</i>			<i>Account Balances</i>	
Collection Year	Tax Levy	Other Revenues	Surplus (deficit)	Account Balance
		Capitalized & accrued interest >		66,399
2024	-	-	(66,399)	-
2025	291,307	-	-	-
2026	289,884	-	-	-
2027	293,769	-	-	-
2028	292,089	-	-	-
2029	290,252	-	-	-
2030	293,507	-	-	-
2031	291,197	-	-	-
2032	288,729	-	-	-
2033	291,092	-	-	-
2034	292,856	-	-	-
	<u>2,914,679</u>	<u>-</u>		<u>-</u>

Lower Minnesota River Watershed District, Minnesota

Preliminary

\$2,865,000

General Obligation Bonds, Series 2024A

Uses of Funds

River Bank Stabilization Project	5,500,000.00
Other	-
Total Project Costs	5,500,000.00
Underwriter's Discount Allowance 0.000%	-
Unused Underwriter's Discount Allowance	-
Fiscal Fee	19,000.00
Bond Counsel	13,500.00
Paying Agent	1,500.00
Printing & Misc	2,000.00
Rating Agency	14,000.00
Capitalized Interest	80,767.50
Accrued Interest	-
Rounding	-
	5,630,767.50

Sources of Funds

Bond Issue	2,865,000.00
Construction Fund Earnings	15,767.50
State Appropriation	2,750,000.00
	5,630,767.50

Payment Schedule & Cashflow

Payment Schedule				Payment Total	plus 5% Coverage
12-Month Period ending	Principal	Interest Rate	Interest		
3/1/2024	-		-	-	
2/1/2025	-	3.25%	80,767.50	80,767.50	80,768
2/1/2026	250,000	3.10%	88,110.00	338,110.00	355,016
2/1/2027	260,000	3.00%	80,360.00	340,360.00	357,378
2/1/2028	265,000	3.00%	72,560.00	337,560.00	354,438
2/1/2029	275,000	3.00%	64,610.00	339,610.00	356,591
2/1/2030	280,000	3.00%	56,360.00	336,360.00	353,178
2/1/2031	290,000	3.00%	47,960.00	337,960.00	354,858
2/1/2032	300,000	3.00%	39,260.00	339,260.00	356,223
2/1/2033	305,000	3.10%	30,260.00	335,260.00	352,023
2/1/2034	315,000	3.20%	20,805.00	335,805.00	352,595
2/1/2035	325,000	3.30%	10,725.00	335,725.00	352,511
	2,865,000		591,777.50	3,456,777.50	3,625,578

Bond Details

Set Sale Date	1/17/2024
Sale Date	2/21/2024
Dated Date	3/1/2024
Closing Date	3/1/2024
1st Interest Payment	2/1/2025
Proceeds spent by:	12/31/2025
	<i>to Dated Date</i>
Purchase Price	2,865,000.00
Net Interest Cost	591,777.50
Net Effective Rate	3.1054%
Average Coupon	3.1054%
Yield	4.3089%
Average Life	6.651
Call Option	2/1/2032
Purchaser	Preliminary
Bond Counsel	Taft
Pay Agent	U.S. Bank, N.A.
Tax Status	Tax Exempt, Bank Qualified
Continuing Disclosure	Limited
Rebate	Subject to Rebate
Statutory Authority	M.S. 103B, 103D, & 475

Pledged Revenues			Account Balances	
Collection Year	Tax Levy	Other Revenues	Surplus (deficit)	Account Balance
		Capitalized & accrued interest >		80,768
2024	-	-	(80,768)	-
2025	355,016	-	-	-
2026	357,378	-	-	-
2027	354,438	-	-	-
2028	356,591	-	-	-
2029	353,178	-	-	-
2030	354,858	-	-	-
2031	356,223	-	-	-
2032	352,023	-	-	-
2033	352,595	-	-	-
2034	352,511	-	-	-
	3,544,811	-		-

Proposed Levy 2024A

General Fund	250,000.00
Planning and Implementation Fund	525,000.00
One time levy to balance channel fund	<u>2,750,000.00</u>

Apportioned Payable 2024 Levy 3,525,000.00

<u>County</u>	<u>Net Tax Capacity % Distribution</u>	<u>Apportioned Payable 2024 Levy</u>
Carver	6.5269%	230,073.23
Dakota	9.5964%	338,273.10
Hennepin	40.2938%	1,420,356.45
Scott	43.5829%	1,536,297.23
Watershed Total	100.0000%	3,525,000.00

Proposed Levy 2024B

General Fund	250,000.00
Planning and Implementation Fund	525,000.00
One time levy to balance channel fund	<u>2,250,000.00</u>

Apportioned Payable 2024 Levy 3,025,000.00

<u>County</u>	<u>Net Tax Capacity % Distribution</u>	<u>Apportioned Payable 2024 Levy</u>
Carver	6.5269%	197,438.73
Dakota	9.5964%	290,291.10
Hennepin	40.2938%	1,218,887.45
Scott	43.5829%	1,318,382.73
Watershed Total	100.0000%	3,025,000.00



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting
Wednesday, July 19, 2023

Agenda Item

Item 6. A. – 2021/2022 Financial Audit

Prepared By

Linda Loomis, Administrator

Summary

A letter of engagement has been executed between Redpath and Company and the LMRWD for the 2021 and 2022 Financial Audit. A copy is attached for the Board's information.

Legal Counsel has prepared and sent a letter to Global Portfolio Consulting. The letter was shared with the MN Board of Accountancy (BOA). The BOA informed the LMRWD that this firm is already under investigation. The lack of audited financials may impact the ability of the LMRWD to issue bonds for Area #3.

I expect the audit will begin in the next week or two.

Attachments

Letter of Engagement between Redpath and Company and LMRWD

Letter to Global Portfolio Consulting regarding withdrawal from the agreement with the LMRWD.

Recommended Action

No Action recommended



June 5, 2023

To the Board of Managers
Lower Minnesota River Watershed District
112 E. 5th Street, # 102
Chaska, Minnesota 55318

This letter defines the agreement with respect to the terms and objectives of our engagement and the nature and limitations of the services Redpath and Company, Ltd. and affiliated entities (herein referred to as Redpath and Company) will provide to Lower Minnesota River Watershed District (LMRWD) for the years ended December 31, 2021 and December 31, 2022.

Audit Scope and Objectives

We will audit the financial statements of the governmental activities and each major fund, and the disclosures, which collectively comprise the basic financial statements of LMRWD as of and for the years ended December 31, 2021 and December 31, 2022. Accounting standards generally accepted in the United States of America (GAAP) provide for certain required supplementary information (RSI), such as a budgetary comparison schedule, to supplement LMRWD's basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. As part of our engagement, we will apply certain limited procedures to LMRWD's RSI in accordance with auditing standards generally accepted in the United States of America (GAAS). These limited procedures will consist of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We will not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance. The following RSI is required by GAAP and will be subjected to certain limited procedures, but will not be audited:

- Budgetary Comparison Schedules presented as RSI

We have also been engaged to report on supplementary information other than RSI that accompanies LMRWD's financial statements. We will subject the following supplementary information to the auditing procedures applied in our audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the

Lower Minnesota River Watershed District

June 5, 2023

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underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with GAAS, and we will provide an opinion on it in relation to the financial statements as a whole in a report combined with our auditor's report on the financial statements:

- Individual Fund Financial Statements
- Schedule of 509 Planning/Project Expenditures

In connection with our audit of the basic financial statements, we will read the following other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

- Introductory Section
- Other Information Section

The objectives of our audit are to obtain reasonable assurance as to whether the financial statements as a whole are free from material misstatement, whether due to fraud or error; issue an auditor's report that includes our opinion about whether your financial statements are fairly presented, in all material respects, in conformity with GAAP; and report on the fairness of the supplementary information referred to in the second paragraph when considered in relation to the financial statements as a whole. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. Misstatements, including omissions, can arise from fraud or error and are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment of a reasonable user made based on the financial statements.

We will also issue a report on compliance based on the *Minnesota Legal Compliance Audit Guide for Other Political Subdivisions*, promulgated by the State Auditor pursuant to Minnesota Statute 6.65.

Auditor's Responsibilities for the Audit of the Financial Statements

We will conduct our audit in accordance with GAAS and the minimum procedures for auditors as prescribed by Minnesota Statute 6.65, and will include tests of your accounting records and other procedures we consider necessary to enable us to express such opinions. As part of an audit in accordance with GAAS, we exercise professional judgment and maintain professional skepticism throughout the audit.

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We will evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management. We will also evaluate the overall presentation of the financial statements, including the disclosures, and determine whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation. We will plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether from (1) errors, (2) fraudulent financial reporting, (3) misappropriation of assets, or (4) violations of laws or governmental regulations that are attributable to the entity or to acts by management or employees acting on behalf of the entity.

Because of the inherent limitations of an audit, combined with the inherent limitations of internal control, and because we will not perform a detailed examination of all transactions, there is an unavoidable risk that some material misstatements may not be detected by us, even though the audit is properly planned and performed in accordance with GAAS. In addition, an audit is not designed to detect immaterial misstatements or violations of laws or governmental regulations that do not have a direct and material effect on the financial statements. However, we will inform the appropriate level of management of any material errors, fraudulent financial reporting, or misappropriation of assets that comes to our attention. We will also inform the appropriate level of management of any violations of laws or governmental regulations that come to our attention, unless clearly inconsequential. Our responsibility as auditors is limited to the period covered by our audit and does not extend to any later periods for which we are not engaged as auditors.

We will also conclude, based on the evidence obtained, whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the entity's ability to continue as a going concern for a reasonable period of time.

Our procedures will include tests of documentary evidence supporting the transactions recorded in the accounts, and direct confirmation of certain assets and liabilities by correspondence with selected customers, creditors, and financial institutions. We will also request written representations from your attorneys as part of the engagement.

We may, from time to time and depending on the circumstances, use third-party service providers in serving your account. We may share confidential information about you with these service providers but remain committed to maintaining the confidentiality and security of your information. Accordingly, we maintain internal policies, procedures, and safeguards to protect the confidentiality of your personal information. In addition, we will secure confidentiality agreements with all service providers to maintain the confidentiality of your information and we will take reasonable precautions to determine that they have appropriate procedures in place to prevent the unauthorized release of your confidential information to others. In the event that we are unable to secure an appropriate confidentiality agreement, you will be asked to provide your consent prior to the sharing of your confidential information with the third-party service provider. Furthermore, we will remain responsible for the work provided by any such third-party service providers

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Audit Procedures – Internal Control

We will obtain an understanding of the entity and its environment, including internal control relevant to the audit, sufficient to identify and assess the risks of material misstatement of the financial statements, whether due to error or fraud, and to design and perform audit procedures responsive to those risks and obtain evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentation, or the override of internal control. An audit is not designed to provide assurance on internal control or to identify deficiencies in internal control. Accordingly, we will express no such opinion. However, during the audit, we will communicate to management and those charged with governance internal control related matters that are required to be communicated under AICPA professional standards.

Audit Procedures – Compliance

As part of obtaining reasonable assurance about whether the financial statements are free of material misstatement, we will perform tests of LMRWD's compliance with the provisions of applicable laws, regulations, contracts, and agreements. However, the objective of our audit will not be to provide an opinion on overall compliance, and we will not express such an opinion.

The *Minnesota Legal Compliance Audit Guide for Other Political Subdivisions* requires that we test whether the entity has complied with certain provisions of Minnesota statutes. Our audit will include such tests of the accounting records and other procedures as we consider necessary in the circumstances.

Other Services

We will also assist with the following other services based on information provided by you:

- preparation of the financial statements and related notes in conformity with accounting principles generally accepted in the United States of America

We will perform the services in accordance with applicable professional standards. The other services are limited to the services defined above. We, in our sole professional judgment, reserve the right to refuse to perform any procedure or take any action that could be construed as assuming management responsibilities.

You agree to assume all management responsibilities for the financial statement preparation, and any other nonattest services we provide; oversee the services by designating an individual, preferably from senior management, with suitable skill, knowledge, or experience; evaluate the adequacy and results of the services; and accept responsibility for them.

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Responsibilities of Management for the Financial Statements

Our audit will be conducted on the basis that you acknowledge and understand your responsibility for designing, implementing and maintaining internal controls relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error, including monitoring ongoing activities; for the selection and application of accounting principles; and for the preparation and fair presentation of the financial statements in conformity with accounting principles generally accepted in the United States of America with the oversight of those charged with governance.

Management is responsible for making drafts of financial statements, all financial records, and related information available to us and for the accuracy and completeness of that information (including information from outside of the general and subsidiary ledgers). You are also responsible for providing us with (1) access to all information of which you are aware that is relevant to the preparation and fair presentation of the financial statements, such as records, documentation, identification of all related parties and all related-party relationships and transactions, and other matters; (2) additional information that we may request for the purpose of the audit; and (3) unrestricted access to persons within the entity from whom we determine it necessary to obtain audit evidence. At the conclusion of our audit, we will require certain written representations from you about your responsibilities for the financial statements and related matters.

Your responsibilities include adjusting the financial statements to correct material misstatements and confirming to us in the management representation letter that the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements of each opinion unit taken as a whole.

You are responsible for the design and implementation of programs and controls to prevent and detect fraud, and for informing us about all known or suspected fraud affecting the entity involving (1) management, (2) employees who have significant roles in internal control, and (3) others where the fraud could have a material effect on the financial statements. Your responsibilities include informing us of your knowledge of any allegations of fraud or suspected fraud affecting the entity received in communications from employees, former employees, grantors, regulators, or others. In addition, you are responsible for identifying and ensuring that the entity complies with applicable laws and regulations.

You are also responsible for the preparation of the other supplementary information, which we have been engaged to report on, in conformity with accounting principles generally accepted in the United States of America (GAAP). You agree to include our report on the supplementary information in any document that contains, and indicates that we have reported on, the supplementary information. You also agree to include the audited financial statements with any presentation of the supplementary information that includes our report thereon. Your responsibilities include acknowledging to us in the written representation letter that (1) you are

Lower Minnesota River Watershed District

June 5, 2023

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responsible for presentation of the supplementary information in accordance with GAAP; (2) you believe the supplementary information, including its form and content, is fairly presented in accordance with GAAP; (3) the methods of measurement or presentation have not changed from those used in the prior period (or, if they have changed, the reasons for such changes); and (4) you have disclosed to us any significant assumptions or interpretations underlying the measurement or presentation of the supplementary information.

With regard to publishing the financial statements on your website, you understand that websites are a means of distributing information and, therefore, we are not required to read the information contained in those sites or to consider the consistency of other information on the website with the original document.

Management is responsible for establishing and maintaining a process for tracking the status of audit findings and recommendations. Management is also responsible for identifying and providing report copies of previous financial audits, attestation engagements, performance audits or other studies related to the objectives discussed in the Audit Scope and Objectives section of this letter. This responsibility includes relaying to us corrective actions taken to address significant findings and recommendations resulting from those audits, attestation engagements, performance audits, or other studies. You are also responsible for providing management's views on our current findings, conclusions, and recommendations, as well as your planned corrective actions for the report, and for the timing and format for providing that information.

Engagement Administration, Fees and Other

We understand that your employees will prepare all cash, accounts receivable, or other confirmations we request and will locate any documents selected by us for testing.

We will provide copies of our reports to LMRWD; however, management is responsible for distribution of the reports and the financial statements. Unless restricted by law or regulation, or containing privileged and confidential information, copies of our reports are to be made available for public inspection.

The audit documentation for this engagement is the property of Redpath and Company and constitutes confidential information. However, subject to applicable laws and regulations, audit documentation and appropriate individuals will be made available upon request and in a timely manner to oversight agencies, regulators, a federal agency providing direct or indirect funding, or the U.S. Government Accountability Office for the purposes of a quality review of the audit, to resolve audit findings, or to carry out oversight responsibilities. We will notify you of any such request. If requested, access to such audit documentation will be provided under the supervision of Redpath and Company personnel. Furthermore, upon request, we may provide copies of selected audit documentation to the aforementioned parties. These parties may intend or decide to distribute the copies or information contained therein to others, including other governmental agencies.

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Unless additional work is requested or required, our fee for these services will be:

Financial audit for the year ended December 31, 2021	\$25,000
Financial audit for the year ended December 31, 2022	\$25,000

Out-of-pocket costs, such as confirmation and courier fees, will be billed in addition to the fees stated above. We bill our fees at the completion of our audits and expect payment within thirty (30) days. Each invoice includes a detailed description of the services provided. Amounts over thirty (30) days will be considered delinquent. We reserve the right to assess a 1.5% per month service charge on any balance older than thirty (30) days. In the event it becomes necessary to refer this account to an attorney for collection (whether or not suit is commenced), you will be responsible for payment of all reasonable costs of such collections, including reasonable attorney fees. Our policy is to suspend work if your account becomes overdue by sixty (60) days or more, and work will not be resumed until your account is paid in full. Should we elect to discontinue services, you will be responsible for all time and expenses incurred through the date of termination regardless of whether we have issued a report or other final product.

The above fees are based on the anticipated scope of services, anticipated cooperation from your personnel and the assumption that unexpected circumstances will not be encountered. The following circumstances may result in a change in scope of services and an increase in fees:

- Significant audit adjustments, internal control deficiencies or compliance findings,
- Failure to complete the preparation work by the applicable due dates,
- Inaccurate records,
- Turnover in your staff,
- Significant unanticipated or undisclosed transactions, issues, or other such unforeseeable circumstances,
- Delays causing scheduling changes or disruption of previously scheduled timing of work (fieldwork),
- Circumstances requiring revisions to work previously completed or delays in resolution of issues that extend the period of time necessary to complete the audit
- Fraud or misuse of public funds

Our fees do not include bookkeeping or accounting assistance, preparation of audit workpapers, reconciliations or similar assistance (unless otherwise noted in the sections above). Our fees for such services will be dependent on the level of effort required.

Services requested by you that are not included in this engagement letter will be billed dependent on the level of effort required and will be subject to all the terms of this letter.

Our fees and rates are adjusted annually for general economic factors.

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June 5, 2023

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If we are requested or required to provide documents or testimony to support litigation proceedings as a professional service on your behalf (that is, litigation in which we are not a party as a result of our engagement), you will be billed for our time at the current standard rates and all out-of-pocket expenditures, including copying costs and legal fees.

Record Keeping Responsibilities

The AICPA Code of Professional Conduct requires Redpath and Company to maintain our independence with regards to certain attestation services provided to LMRWD. These rules require LMRWD to take responsibility for all nonattest services. Redpath and Company cannot serve as custodian for your data in such a way that your data is incomplete and accessible only through Redpath and Company or the Redpath portal. As such, any financial report, reconciliation, document, and calculation (depreciation schedules, journal entries, etc.) that we prepare or update on your behalf will be sent to you at the completion of each attest or nonattest service. You are responsible for downloading and maintaining these records as well as all supporting documents generated in the normal course of business until the retention period expires.

The audit documentation for this engagement will be retained for a minimum of five years after the report release date or for any additional period requested by regulators. If we are aware that a federal awarding agency or auditee is contesting an audit finding, we will contact the party(ies) contesting the audit finding for guidance prior to destroying the audit documentation.

Confidentiality

We may from time to time, and depending on the circumstances, use third-party service providers in serving your account. We may share confidential information about you with these service providers but remain committed to maintaining the confidentiality and security of your information. Accordingly, we maintain internal policies, procedures and safeguards to protect the confidentiality of your personal information. In addition, we will secure confidentiality agreements with all service providers to maintain the confidentiality of your information and we will take reasonable precautions to determine that they have appropriate procedures in place to prevent the unauthorized release of your confidential information to others. In the event that we are unable to secure an appropriate confidentiality agreement, you will be asked to provide your consent prior to the sharing of your confidential information with the third-party service provider. Furthermore, we will remain responsible for the work provided by any such third-party service providers.

Lower Minnesota River Watershed District

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Privacy

We have established policies and procedures to ensure that the entity's non-public information is private and secure at all times. We maintain physical, electronic and procedural controls to comply with standards in safeguarding your information from loss, misuse, alteration or destruction (unless the destruction is according to our records retention schedule). We do not sell information to third parties. We do not disclose non-public information except as necessary to provide our services (see Confidentiality above) and as required by law. We do not disclose non-public information we receive to our affiliates unless authorized.

Dispute Resolution

In the event of a dispute over fees for our engagement, LMRWD and our firm mutually agree to try in good faith to resolve the dispute through mediation by selecting a third-party to help reach an agreement, in accordance with the following paragraph (Mediation). If we are unable to resolve the fee dispute through mediation, then, with the consent of both parties, such disputes may be settled by binding arbitration. We both acknowledge that should a dispute over fees arise that cannot be resolved through mediation, each of us is giving up the right to have the dispute decided in a court of law before a judge or jury. Instead, we are accepting the use of arbitration for resolution.

We believe that most disagreements can be resolved to mutual satisfaction in a friendly, non-threatening environment. While we do not expect there to be any problems whatsoever with our relationship, misunderstandings can occur. Therefore, we agree that any dispute arising under this agreement (including the scope, nature and quality of services to be performed by us, our fees or other terms of the engagement) shall be submitted to mediation. A competent and impartial third-party, acceptable to both parties, shall be appointed to mediate, and each disputing party shall pay an equal percentage of the mediator's fees and expenses. No suit or arbitration proceeding shall be commenced under this agreement until at least sixty (60) days after the mediator's first meeting with the involved parties. If the dispute requires litigation, the court shall be authorized to impose all defense costs against any non-prevailing party found not to have participated in the mediation process in good faith.

Reporting

We will issue a written report upon completion of our audit of LMRWD's financial statements which will also address other information in accordance with AU-C 720, *The Auditor's Responsibilities Relating to Other Information Included in Annual Reports*. Our reports will be addressed to the Board of Managers of LMRWD. Circumstances may arise in which our report may differ from its expected form and content based on the results of our audit. Depending on the nature of these circumstances, it may be necessary for us to modify our opinions, add a separate section, or add an emphasis-of-matter or other-matter paragraph to our auditor's report, or if necessary, withdraw from this engagement. If our opinions are other than unmodified, we will discuss the reasons with you in advance. If, for any reason, we are unable to complete the

Lower Minnesota River Watershed District

June 5, 2023

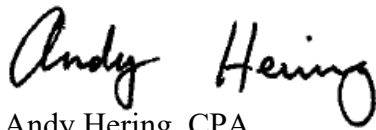
Page 10

audit or are unable to form or have not formed opinions, we may decline to express opinions or issue reports, or we may withdraw from this engagement.

We appreciate the opportunity to be of service to LMRWD and believe this letter accurately summarizes the significant terms of our engagement. If you have any questions, please let us know. If you agree with the terms of our engagement as described in this letter, please sign this letter and return it to us via DocuSign.

Sincerely,

REDPATH AND COMPANY

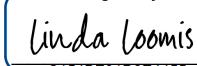


Andy Hering, CPA

Response

This letter correctly sets forth the understanding of Lower Minnesota River Watershed District.

DocuSigned by:


Signature

Administrator

Title

7/12/2023 | 7:49 AM CDT

Date

Nonaudit Services

The individuals assigned to oversee the nonaudit services is Linda Loomis, Administrator, unless indicated below:

_____ (name and title)

July 10, 2023

Direct Dial: 320-656-3503
Jkolb@RinkeNoonan.com

Mr. Charles Amevo
Global Portfolio Consulting, LLC
7625 Metro Blvd
Suite 120
Edina, MN 55439

SENT VIA EMAIL: CAMEVO02@GMAIL.COM & U.S. MAIL

**Re: Cancellation of Consulting Contract for Audit Services, Lower Minnesota River
Watershed District (2021 Annual Audit)
Our File No. 25226-0001**

Dear Mr. Amevo:

I represent the Lower Minnesota River Watershed District as its general counsel. The District's administrator, Ms. Linda Loomis, has provided me with your email dated April 24, 2023, withdrawing from your prior engagement to perform annual audits for the District for calendar years 2021 and 2022. As part of the engagement (dated January 12, 2022), the District paid half of the agreed upon fee for the 2021 audit (\$17,842).

In your email you indicate that you are withdrawing from the engagement because "During the engagement, we did have access to the predecessor auditor that helped us understand the procedures he performed in the past. Unfortunately, the predecessor auditor cannot help with questions strictly relevant to the current years' engagement and we do not have unrestricted access to persons with knowledge of financial information and reporting processes of the accounting information for the periods covered by our engagement. For those reasons, we were unable to have access to all information that is relevant to the preparation and fair presentation of the financial statements such as records, documentation, and other matters and we are left with the only one choice of withdrawing from the engagement."

The District disagrees with your justification for withdrawal. You have not provided any detail regarding either the information you required, the persons from whom you required the information or the nature of the alleged restricted access. The District does not accept your withdrawal as justified. Moreover, that it took until April of 2023 for you to determine you could not complete the audit is reflective of the lack of diligence and responsiveness the District experienced with you as the assigned auditor.

Suite 300 US Bank Plaza
1015 W. St. Germain St.
P.O. Box 1497
St. Cloud, MN 56302
320.251.6700

www.rinkenoonan.com

Mr. Charles Amevo
July 10, 2023
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I have reviewed the District's engagement agreement with your firm. To the District's knowledge, notwithstanding your vague assertions to the contrary, the District provided: access to all information relevant to the preparation and fair presentation of the financial statements such as records, documentation, and other matters; additional information that you requested for the purpose of the audit; and unrestricted access to persons within the entity from whom you sought to obtain audit evidence.

We are able to document our efforts to assist your firm in performing the audit and have reviewed that documentation with the State Auditor. It is upon the recommendation of the State Auditor that we write this letter. Because you have failed to perform the audit as agreed and yet retained a substantial, advanced payment for the services, please refund the full amount of the payment. If you believe you are authorized to retain any of the payment, please provide justification for its retention by providing a full statement of the work performed up to and through the date of withdrawal. Further, if you propose to retain any portion of the payment, please provide any and all data collected, summaries or drafts of the audit report and any other information or work product for which the payment was applied.

The Board has authorized me to pursue recovery of its advance payment and to file a complaint with the State Board of Accountancy – which has recently informed me that your CPA licensure in Minnesota (Cert #29125) is suspended. Please give the District the courtesy of a reply with 30 days.

Sincerely,

/s/ John C. Kolb

John C. Kolb
JCK/cmt

cc: LMRWD Board of Managers c/o Linda Loomis (email only)
Doreen Johnson, Executive Director, Minnesota Board of Accountancy (by email
doreen.johnson@state.mn.us and U.S. mail)



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting

Wednesday, July 19, 2023

Agenda Item

Item 6. B. – Lower Minnesota River East One Watershed One Plan

Prepared By

Linda Loomis, Administrator

Summary

The policy committee will be meeting at 3:00pm on Thursday, July 20, 2023 to give guidance to the governance structure to be formed to implement the One Watershed One Plan (1W1P) that is being developed for the Lower Minnesota River East planning area. The LMRWD Board of Managers discussed this at its June meeting. More information has been received since the June meeting.

On June 29th, I met with Barb Peichel and Ann Sawyer from BWSR. Melissa Bokman, Scott WMO, sat in on the meeting. BWSR provided answers to questions. A recap follows:

- WBIF funding – based on private land area formula (90%) – 10% based on waters.
- For Lower MN East area, does not include water/land in the metro, only land/water in Rice & Le Sueur area.
- The amount of WBIF will not change if we join or don't join partnership.
- Metro convene group can choose to pool statewide WBIF, but we don't have to pool it with the partnership.
- If our projects are in the 1W1P area, we can still use our metro WBIF funding.
- Metro funds could be used upstream if the metro convene group agrees to that.
- Comfort Lake Forest Lake Resolution example – re local plan prioritized over 1W1P plan.

Scott County will not have a representative at the July Policy Committee meeting and sent a letter for the Committee to consider. A copy of that letter is attached.

BWSR sent the resolution from Comfort Lake Forest Lake Watershed District for the LMRWD to consider. They also sent a resolution from the South Washington Watershed District. Both Resolutions are attached.

Lastly, a draft of portions of the 1W1P will be ready in August. The final plan is planned to be available in October.

Attachments

Memo from Scott County Planning & Resource Management dated July 6, 2023

Comfort Lake – Forest Lake Watershed District Resolution 20-11-01

South Washington Watershed District Resolution 2021-001

Recommended Action

No action recommended



SCOTT COUNTY PLANNING & RESOURCE MGMT

GOVERNMENT CENTER 114 · 200 FOURTH AVENUE WEST · SHAKOPEE, MN 55379-1220
(952) 496-8475 · Fax (952) 496-8496 · Web www.co.scott.mn.us

Memo

Date: July 6, 2023

To: Lower Minnesota River East 1W1P Policy Committee

From: Brad Davis, Scott County – Director of Planning and Resource Management,
Vanessa Strong – Administrator of Scott WMO

Subject: Scott County Board of Comm./WMO Board of Comm. Direction on 1W1P Org Structure

Scott County Natural Resource/Watershed Management staff held a Board workshop on June 20, 2023 to review and discuss organizational structure options for the implementation phase of the *One Watershed One Plan* project. Also in attendance at the workshop was the chair of the Scott WMO Watershed Planning Commission, who serves as a liaison representing the Scott WMO on the 1W1P Policy Committee (the County's other Policy Committee liaison was unable to attend).

The Board reviewed and discussed the three options under consideration (Memorandum of Agreement; Joint Powers Collaboration; and Joint Powers Entity) and used the informational handouts provided by the Minnesota Board of Water and Soil Resources and Minnesota Counties Insurance Trust to evaluate each option. After considerable discussion, the Scott County Board of Commissioners/WMO Board indicated preference for a Memorandum of Agreement (MOA) structure in the implementation phase. Commissioners expressed preference with this option over the other two for the following stated reasons:

- The Boards are satisfied with the current level of staffing and funding being invested in watershed management today in Scott County and is concerned that the other two options could, over time, lead to increased staffing needs and increased funding requests.
- The Boards expressed concern over how much staff capacity could be expended, over time, on the other two options, when they desire that capacity to be focused on carrying out the County's existing watershed planning workload.
- The Boards did not see a clear benefit for Scott County or the Scott WMO to be part of a JPC or JPE. If and until the Commissioners saw this clear benefit, the Boards would be willing to revisit these other options.
- The Boards expressed concern that a JPC or JPE structure could result in member dues, which would need to be funded through either the County levy or Scott WMO levy. The Boards expressed concern that this could result in county residents paying twice for the same type of work already being implemented through the County's local water plan, Scott WMO's watershed management plan, and other watershed management agencies within Scott County.

Thank you for allowing this time in the process to obtain feedback from each of the member participant's governing boards on this next phase of the *One Watershed One Plan* project.

RESOLUTION 20-11-01
COMFORT LAKE-FOREST LAKE WATERSHED DISTRICT
BOARD of MANAGERS

**Adopting Lower St. Croix Comprehensive Watershed Management Plan
and Approving Joint Powers Agreement for Its Implementation**

Manager Anderson offered the following resolution and moved its adoption, seconded by Manager Dibble:

WHEREAS the Comfort Lake - Forest Lake Watershed District ("District"), pursuant to Minnesota Statutes §103B.231, has duly adopted and implements a Watershed Management Plan (WMP) defining District goals and priorities for a ten-year planning period, and setting forth an implementation program to achieve those goals and priorities;

WHEREAS the District entered into the Lower St. Croix Watershed Memorandum of Agreement as a collaborative partner with 14 other political subdivisions and watershed management organizations to develop a comprehensive watershed management plan for the Lower St. Croix Watershed, and the collaborative submitted a draft Lower St. Croix Comprehensive Watershed Management Plan ("Plan") to the Minnesota Board of Soil and Water Resources (BSWR) for State approval;

WHEREAS on October 28, 2020, BWSR approved the Plan, requiring the governing boards of the partnering organizations to act to advance the important work of implementing the Plan;

WHEREAS the District finds that the Plan is consistent with the WMP, and simply provides a structure for the District to use Watershed-Based Implementation Funds in cooperation with partnering organizations, in accordance with goals, priorities and procedures stated in the WMP;

WHEREAS the partnering organizations have collaborated to draft a Joint Powers Agreement (JPA) pursuant to Minnesota Statutes §471.59 in order to coordinate Plan implementation;

NOW, THEREFORE, BE IT RESOLVED:

- The District Board of Managers ("Board") hereby adopts the Plan, which will not replace, but will serve as guidance to, the WMP by better defining how the District will carry out certain program activities within its discretion, and which the District will apply in accordance with WMP goals, priorities and procedures;
- The WMP shall incorporate the Plan by reference, with notice of the WMP change provided in accordance with Minnesota Rules 8410.0140, subpart 5;
- The Board determines that the District shall withdraw from the Lower St. Croix Watershed Memorandum of Agreement;
- The Board approves and authorizes District entry into the JPA, attached hereto and incorporated herein, for collaborative Plan implementation;
- Pursuant to the terms of the JPA, the Board designates Jackie Anderson to serve as the District representative on the Policy Committee, and Steve Schmaltz to serve as the alternate

representative, commencing on the date on which the JPA is effective and lapsing when the Board should make another designation;

- The Board delegates to the District Administrator the authority, pursuant to the terms of the JPA, to designate District staff to serve on the Advisory Committee, which designee or designees may include the District administrator, and directs the Administrator to provide for the roles and responsibilities of the District under the JPA to be fulfilled;


BE IT FURTHER RESOLVED that the Board President and District Administrator are authorized and directed to take all steps necessary to effect the above determinations of the Board, including but not limited to giving such notice and signing such documents as may be necessary to do so.

The question was on the adoption of the above resolution and there were 4 ayes and 0 nays as follows:

	<u>AYE</u>	<u>NAY</u>	<u>ABSENT</u>
Jackie A. Anderson	X		
Jim Dibble	X		
Jen Oknich			X
Stephen Schmaltz	X		
Jon W. Spence	X		

The Chair declared the resolution adopted.

Dated: November 10, 2020




Jen Oknich, Secretary

* * * * *

I, Jen Oknich, Secretary of the Comfort Lake-Forest Lake Watershed District Board of Managers, do hereby certify that the above resolution is a true and correct transcription of an action of the Board taken on the date above indicated.

IN TESTIMONY WHEREOF, I have hereunto set my hand this 10th day of November, 2020.



Jen Oknich, Secretary



SOUTH WASHINGTON WATERSHED DISTRICT

SWWD RESOLUTION #2021-001

Resolution to Adopt the Lower St. Croix Comprehensive Watershed Management Plan And Enter Into a Joint Powers Agreement for the Implementation of the Lower St. Croix Comprehensive Watershed Management Plan

WHEREAS, the South Washington Watershed District (SWWD) entered into the Lower St. Croix Watershed Memorandum of Agreement as a collaborative partner with 14 other political subdivisions and watershed management organizations to develop a comprehensive watershed management plan for the Lower St. Croix Watershed and the collaborative submitted a draft Lower St. Croix Comprehensive Watershed Management Plan to the Minnesota Board of Soil and Water Resources (BSWR) for State approval.

WHEREAS, on October 28, 2020, BSWR announced its approval of the Lower St. Croix Comprehensive Watershed Management Plan, requiring the governing boards of the partnering organizations to make additional authorizations and approvals to move forward the important work of implementing Lower St. Croix Comprehensive Watershed Management Plan.

NOW, THEREFORE, BE IT RESOLVED that the SWWD Board hereby adopts the Lower St. Croix Comprehensive Watershed Management Plan as a Guidance Document to the SWWD 2016 Watershed Management Plan.

BE IT FURTHER RESOLVED that the SWWD Board authorizes the implementation of the Lower St. Croix Comprehensive Watershed Management Plan for the area of SWWD identified within said plan and directs the SWWD Administrator to administer the implementation of such portion of the plan on behalf of the SWWD.

BE IT FURTHER RESOLVED that, on behalf the SWWD, the SWWD withdraws from the Lower St. Croix Watershed Memorandum of Agreement and directs the SWWD Administrator to take all steps necessary to terminate and wind down the rights and obligations of SWWD, including, but not limited to, giving notice of withdrawal to the partner organizations within 30-days of this resolution.

BE IT FURTHER RESOLVED that, pursuant to Minnesota Statute Section 471.59, the SWWD Board authorizes and agrees to enter into the Joint Powers Agreement, attached hereto and incorporated herein, for the collaborative implementation of the Lower St. Croix Comprehensive Watershed Management Plan.

BE IT FURTHER RESOLVED that, pursuant to the terms of said Joint Powers Agreement, the SWWD Board appoints **Kevin ChapdeLaine**, Board Manager, to serve as standing representative of the SWWD on the Policy Committee as provided in the Joint Powers Agreement and the length of such appointment shall be for a term of one year, commencing on **January, 1 2021** and lapsing on **December, 31 2021**.

BE IT FURTHER RESOLVED that, pursuant to the terms of said Joint Powers Agreement, the SWWD Board appoints **Sharon Doucette**, Board Manager, to serve as alternate representative of the SWWD on the Policy Committee as provided in the Joint Powers Agreement and the length of such appointment shall be for term of one year, commencing on **January, 1 2021** and lapsing on **December, 31 2021**.

SWWD RESOLUTION #2021-001

1W1P JPA Adoption

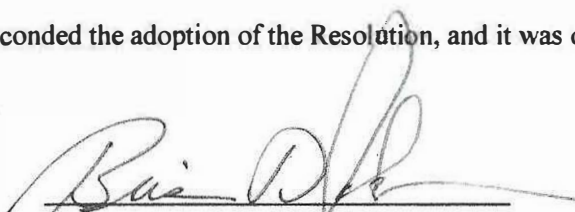
Page 2 of 2

BE IT FURTHER RESOLVED that the SWWD Board authorizes and directs the SWWD Administrator to carry-out all duties and obligations required of the SWWD under the Joint Powers Agreement.

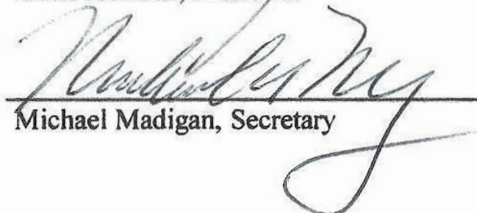
Manager Madigan moved the adoption of the foregoing Resolution #2021-001, and

Manager Chapdelaine seconded the adoption of the Resolution, and it was duly adopted by the

Board on the 12th day of January, 2021.



Brian Johnson, President



Michael Madigan, Secretary



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting
Wednesday, July 19, 2023

Agenda Item

Item 6. F. – 2023 Legislative Action

Prepared By

Linda Loomis, Administrator

Summary

The Board should think about what priorities the LMRWD should focus on at the legislature in the 2024 session. 2024 is the second half of the biennium and should focus on bonding. I met with Lisa and discussed follow-up with BWSR about using money received for dredge management on sediment reduction project and researching Attorney Kolb's suggestion at the June 2023 Board meeting about what it would take for the State Auditor to provide audit services for small governmental entities that have difficulties completing statutorily required financial audits. We will also work to continue the funding received to manage dredge materials.

If there are other priorities, or if the Board does not want the above issues to be a part of the LMRWD legislative agenda, the Board should provide direction to staff.

Attachments

No attachments

Recommended Action

Provide direction to staff



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting

Wednesday, July 19, 2023

Agenda Item

Item 6. G. – Education and Outreach

Prepared By

Linda Loomis, Administrator

Summary

i. Lower Minnesota River Watershed District Creek Crossing Signage

The LMRWD Board authorized work to implement creek crossing signage unique to the LMRWD. A location has been identified where the LMRWD can partner with Riley Purgatory Bluff Creek Watershed District to place a creek crossing sign on Flying Cloud Drive at Riley Creek. Technical Memorandum – Lower Minnesota River Watershed District Creek Crossing Signage dated June 14, 2023, is attached, which describes the investigation done so far. A recommendation that the LMRWD Board of Managers approve the LMRWD only option, while partnership with RPBCWD is pursued. If the LMRWD cannot come to an agreement with RPBCWD to partner, the LMRWD will go ahead and implement signage at the Riley Creek location, as recommended.

ii. LMRWD Citizen Advisory Committee Appointment

A resident from the city of Carver has expressed interest in joining the CAC. The application has been reviewed and appointment to the CAC is recommended. A resolution appointing Mr. Kedrowski to the CAC is attached.

iii. LMRWD Social Media and Website updates

The LMRWD would like to update the website with brief biographies and photos of Managers. Staff would also like to feature Managers, like what other watershed districts do. Brief biographies of the Managers would use information taken from the Citizen Advisory Committee orientation packet and used to introduce the Board through social media posts and updated to the LMRWD website. Manager can submit photos to be used, or we could arrange a Board meeting at which photos would be taken.

Attachments

LMRWD Resolution 2023-07 – Appointment of Kevin Kedrowski to LMRWD Citizen Advisory Committee

Recommended Action

Motion to adopt LMRWD Resolution 2023-07 – Appointment of Kevin Kedrowski to LMRWD Citizen Advisory Committee

Technical Memorandum

To: Linda Loomis, LMRWD Administrator
Lower Minnesota River Watershed (LMRWD)

From: Jen Dullum, Education and Outreach Coordinator
Della Schall Young, PMP, CPESC, CTF, Project Manager

Date: June 14, 2023

Re: Lower Minnesota River Watershed District Creek Crossing Signage

At the November 7, 2022, meeting the Lower Minnesota River Watershed District (LMRWD) Board of Managers approved moving forward with a creek crossing sign at Riley Creek. Since then, Young Environmental Consulting Group (Young Environmental) staff have been coordinating with Hennepin County (County) and Riley Purgatory Bluff Creek Watershed District (RPBCWD) on signage. The following memo highlights the status of this project.

Background

Young Environmental reviewed crossings under local jurisdiction in 2021. Only the location at Riley Creek presents an opportunity for a potential crossing sign (see Attachment 1). This location appears to be half within the RPBCWD. Young Environmental has been in contact with Eleanor Mahon, Education and Outreach Coordinator with RPBCWD. RPBCWD has given verbal agreement to collaborate on a joint, co-branded sign with logos from both the LMRWD and RPBCWD. Young Environmental staff designed two signs, one with both watershed district logos and one with only the LMRWD logo (see Attachment 2).

Design Justification

Two signs have been designed in case the RPBCWD Board decides not to approve a co-branded sign. If this happens, we recommend that the LMRWD install one creek crossing sign on the south side of County Road 61 (Flying Cloud Drive) where it is within the LMRWD boundary. If the partnership is approved, the watershed districts will print and install two signs with co-branding and share the cost in equal parts.

- **Co-Branded Version:** The co-branded sign design is consistent with other creek crossing signs developed by RPBCWD. A white panel has been incorporated into the bottom of the original design to help the LMRWD logo remain legible.

- **Single District Version:** The LMRWD-Only sign includes a similar graphic to the RPBCWD for consistency between the neighboring watersheds, but the colors have been adjusted slightly to align with the LMRWD logo colors. If this version is used, our staff should request approval from Eleanor due to the incorporation of design elements from their original material. If RPBCWD does not concur, this version can be altered to become a more uniquely LMRWD design.

Installation Logistics and Costs:

Young Environmental has also worked with Paul Rugar, Division Supervisor Traffic Transportation Operations Department, and others at the County, on sign installation logistics at this location. The LMRWD will need to obtain a right-of-way (ROW) permit and have the sign approved by the County before installation. The County ROW permit fee is \$340, which includes both signs. If the RPBCWD Board of Managers agrees to partner, the cost will be split between both watershed districts. The County ROW permit fee includes installation and materials. Fabrication cost estimates from the selected vendor are provided in Attachment 3 (for combined signs) and Attachment 4 (single sign). A breakdown of associated costs for both scenarios is provided below.

Costs: LMRWD and RPBCWD Partnership

Item	Cost
Sign Fabrication includes tax and shipping (2 co-branded signs – cost divided in half)	\$69.81
ROW Permit Fee (divided in half)	\$170.00
TOTAL	\$239.81

Costs: LMRWD Only

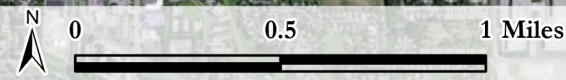
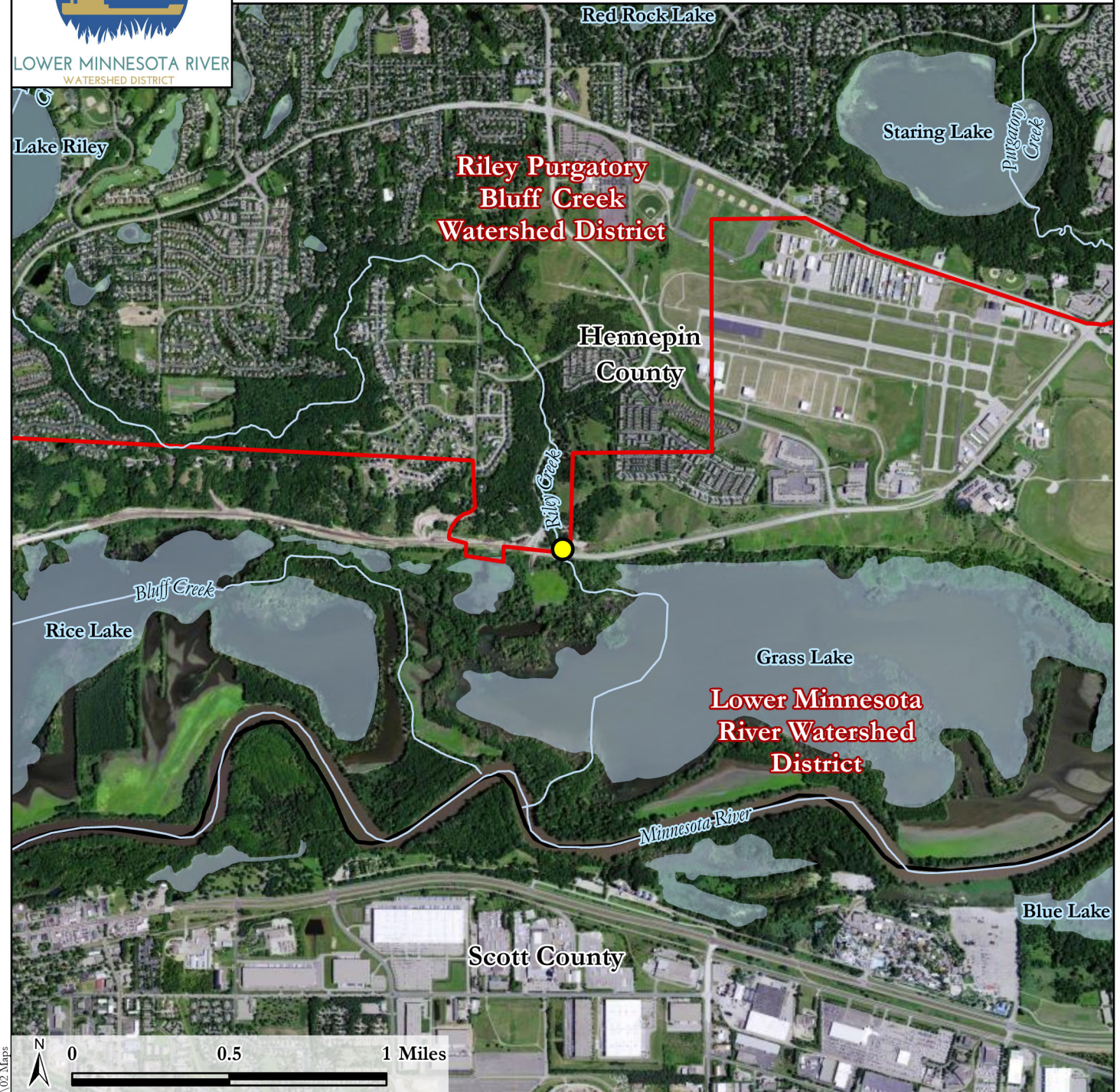
Item	Cost
Sign Fabrication includes tax and shipping (1 sign)	\$78.92
ROW Permit Fee	\$340.00
TOTAL	\$418.92

Recommendation

Staff recommends moving forward with the LMRWD and RPBCWD Partnership while conditionally approving the LMRWD-Only option while the partnership option is pursued. If the LMRWD has not made advances with RPBCWD by August 31, 2023, the LMRWD will proceed with the LMRWD-Only option.



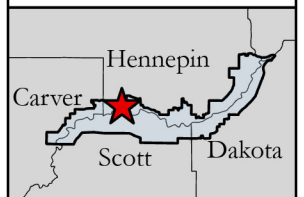
Attachment I: Riley Creek Crossing Sign Location



Legend

- Potential Sign Location
- Public Waters
- Watershed District Boundaries
- County Boundary
- Public Waterbodies

LMRWD Watershed Location Map



Attachment 2:

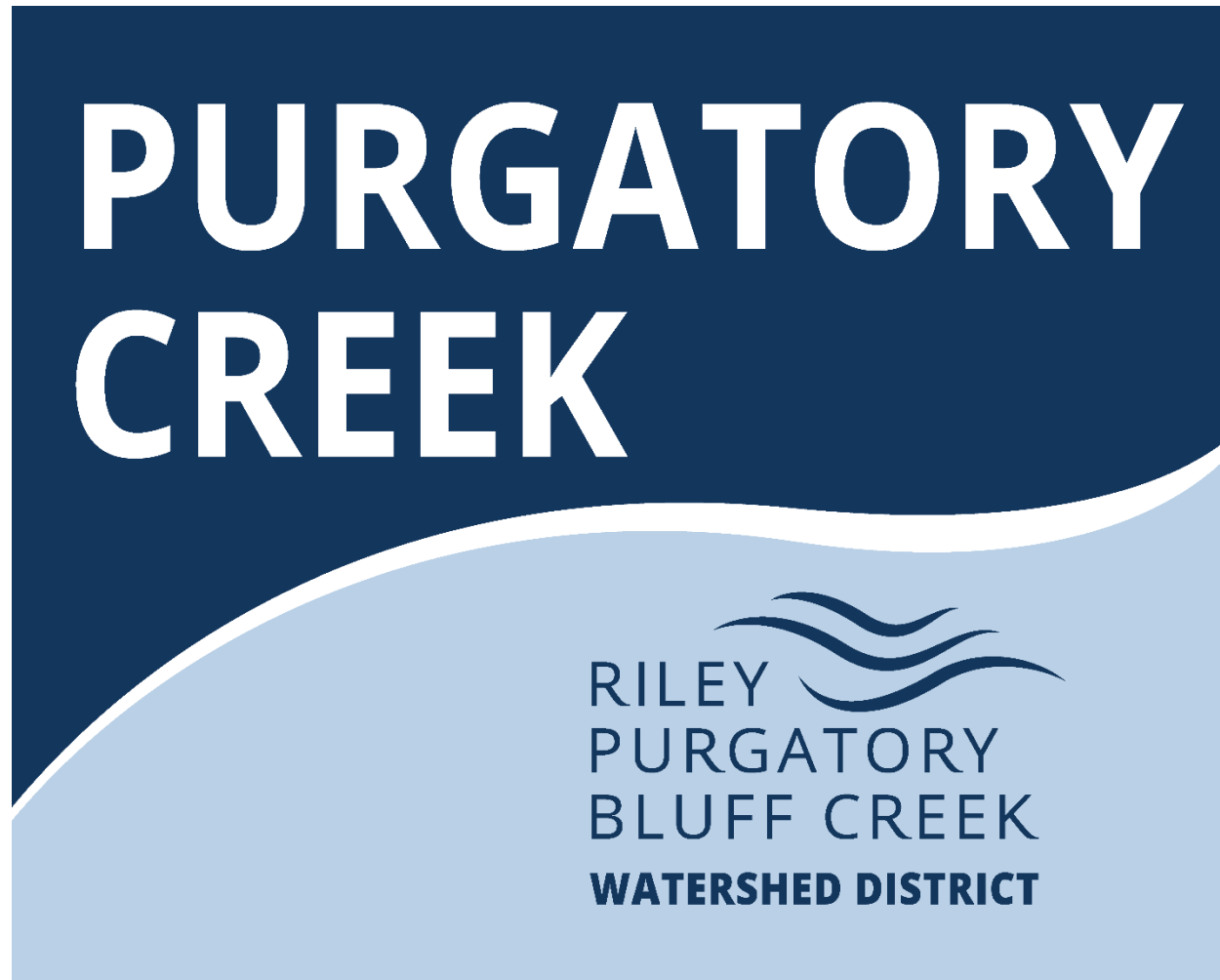
Co-Branded Sign Mockup



LMRWD-Only Sign Mockup



RPBCWD Original/Individual Sign:



Attachment 3:



QUOTATION

Newman Signs Inc.
PO Box 1728
Jamestown, ND 58402
Phone: 800-437-9770

****Given the current market conditions, after one week, this quote is subject to change at any time at the discretion of Newman Traffic Signs.****

Quote #: TRFQTE065049

Quote Date: 5/2/2023

Customer Number: CAS-03-999-02

Ship Via: SPEE DEE

Sales Rep: Chris Rathjen

FOB: ORIGIN

Payment Terms: Net 30

Bill To:

CASH QUOTE CUSTOMER
PO Box 1728
1606 6th Ave SW
Jamestown ND, 58402-1728

Ship To:

YOUNG ENVIRONMENTAL CONSULTING GROUP
6040 EARLE BROWN DR
SUITE 306
BROOKLYN CENTER MN, 55430

Header Note: ***THANK YOU, JEN!! Marcia***

SEQ	Item Number/Cost Code/Description/Note	Quantity	Unit Price	Extended Price
1	T-SODP030024PO 2M3A DP030024PO 2M3A 30X24 .080 1 POST STD PUNCH/RADIUS HIP WHITE W/1160A POL	2.00	60.15	120.30
2	FREIGHT-TRAFFIC FREIGHT TRAFFIC SALES	1.00	9.55	9.55
Subtotal:				129.85
Tax:				9.77
Total:				\$139.62

Total subject to any applicable tax and freight charges. Additional freight charges for residential delivery, inside delivery, liftgate delivery, limited access delivery, or other charges incurred will be invoiced to the customer.

5/2/2023 7:41:05 AM

Attachment 4:



QUOTATION

Newman Signs Inc.
PO Box 1728
Jamestown, ND 58402
Phone: 800-437-9770

****Given the current market conditions, after one week, this quote is subject to change at any time at the discretion of Newman Traffic Signs.****

Quote #: TRFQTE065043

Quote Date: 5/1/2023

Customer Number: CAS-03-999-02

Ship Via: SPEE DEE

Sales Rep: Chris Rathjen

FOB: ORIGIN

Payment Terms: Net 30

Bill To:

CASH QUOTE CUSTOMER
PO Box 1728
1606 6th Ave SW
Jamestown ND, 58402-1728

Ship To:

YOUNG ENVIR CONSULTING GROUP
6040 EARLE BROWN DR
SUITE 306
BROOKLYN CENTER MN, 55430

Header Note: ***THANK YOU, JEN!! Marcia***

SEQ	Item Number/Cost Code/Description/Note	Quantity	Unit Price	Extended Price
1	T-SODP030024PO 2M3A DP030024PO 2M3A 30X24 .080 1 POST STD PUNCH/RADIUS HIP WHITE W/1160A POL	1.00	64.92	64.92
2	FREIGHT-TRAFFIC FREIGHT TRAFFIC SALES	1.00	8.49	8.49
Subtotal:				73.41
Tax:				5.51
Total:				\$78.92

Total subject to any applicable tax and freight charges. Additional freight charges for residential delivery, inside delivery, liftgate delivery, limited access delivery, or other charges incurred will be invoiced to the customer.

5/2/2023 7:33:45 AM

RESOLUTION 23-07

RESOLUTION OF THE LOWER MINNESOTA RIVER WATERSHED DISTRICT BOARD OF MANAGERS

Appointment of Kevin Kedrowski to LMRWD Citizen Advisory Committee

Manager _____ offered the following Resolution and moved its adoption, seconded by Manager _____:

WHEREAS, pursuant to Minnesota Statute 103D.331, the Lower Minnesota River Watershed District (LMRWD) Board of Managers must annually appoint a Citizen Advisory Committee (CAC); and

WHEREAS, the CAC is organized to assist the LMRWD Board of Managers on matters affecting the interests of the watershed district; and

WHEREAS, statute requires the committee consist of at least five (5) members; and

WHEREAS, the District advertised openings for new CAC membership on the LMRWD website, distributed the notice through a press release to all LMRWD partners and stakeholders, and handed out invitations at tabling events; and

WHEREAS, in 2023 the LMRWD received an application from Kevin Kedrowski to become a member of the CAC; and

WHEREAS, LMRWD staff has reviewed the applicant's background, experience, community service and geographic representation within the watershed and recommends the appointment.

NOW, THEREFORE, BE IT RESOLVED NOW, THEREFORE, BE IT RESOLVED that the Lower Minnesota River Watershed District Board of Managers hereby appoint the following individuals to the 2023 Citizen Advisory Committee for a one year appointment:

Kevin Kedrowski

The question was on the adoption of the Resolution and there were ____ yeas and ____ nays as follows:

	<u>Yea</u>	<u>Nay</u>	<u>Absent</u>	<u>Abstain</u>
AMUNDSON	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HARTMANN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
KUPLIC	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RABY	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SALVATO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Upon vote, the President declared the Resolution adopted.

(signature on following page)

Jesse Hartmann, President

ATTEST:

Lauren Salvato, Secretary

I, Lauren Salvato, Secretary of the Lower Minnesota River Watershed District, do hereby certify that I have compared the above Resolution with the original thereof as the same appears of record and on file with the District and find the same to be a true and correct transcript thereof.

IN TESTIMONY WHEREOF, I hereunto set my hand this 19th day of July 2023.

Lauren Salvato, Secretary



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting
Wednesday, July 19, 2023

Agenda Item

Item 6. H. – LMRWD Projects

Prepared By

Linda Loomis, Administrator

Summary

i. Area #3

Work continues on this project. We have received a response from the property owner about transfer of ownership of the property impacted by the project. Wetland delineation and Threatened & Endangered Species assessment are nearing completion. Cultural resource investigation is underway.

The funds for this project will come through the MN Department of Natural Resources and the staff is working to get everything in order for accepting the funds.

The match the LMRWD is required to provide is discussed under the budget. The LMRWD applied for a grant from Hennepin County to help with the match. In 2020, the LMRWD applied to Hennepin County for an Opportunity Grant and was denied. The reason for denial was that the County considered the application to be premature given the stage of the project at that time. The LMRWD has submitted a grant now in 2023. The 2020 grant requested was the maximum allowed by the County; \$100,000. The current maximum grant is \$50,000. The LMRWD applied for the maximum grant amount. A copy of the grant is attached. The Board should approve the grant application and authorize submittal of the Application to Hennepin County. Applications must be received by the County by July 20, 2023.

Attachments

Hennepin County Natural Resource Opportunity Grant Program

Recommended Action

Motion to approve grant application and authorize submittal of the Application to Hennepin County

Natural Resources Opportunity Grant Program



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

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

Application instructions

The Application

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

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

Application Resources

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

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

Part 1

Natural Resources Opportunity Grant Application



Application No. _____

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

1. PROJECT TITLE:

Area 3 Minnesota Riverbank Stabilization Project

2. APPLICANT NAME:

Lower Minnesota River Watershed District

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

Name: Linda Loomis

Title:
District Administrator

Telephone Number:
763-545-4659

E-Mail Address:
naiadconsulting@gmail.com

Mailing Address

Organization (if any): Lower Minnesota River Watershed District

Address: 112 E. 5th Street #102

City: Chaska State: MN Zip Code: 55318

4. PROJECT DURATION:

Estimated Start Date: December 2023

Estimated Completion Date: June 2025

Anticipated PROJECT Length: 18 months

90 percent – underway

100 percent – December 2023 – January 2023

Bidding – January 2023 – March 2023

Construction – March 2023 – June 2025

Part 1

Natural Resources Opportunity Grant Application

5. PROJECT TYPE:

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

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

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

Project Amount:

Total PROJECT Cost

This amount represents the full cost of the PROJECT.

\$ 5,928,691

Natural Resources Opportunity Grant Request

\$50,000

Other Match Funds in PROJECT

Identify secured source(s) of funds:

Funding Source State of Minnesota Capital Grant

Funding Source City of Eden Prairie

Funding Source Lower Minnesota River Watershed District (LMRWD)

\$2,750,000

\$500,000

\$2,678,691

Describe the status of the matching funds:

The LMRWD was awarded State of Minnesota Capital Grant funds in May 2023, as part of the 2023 legislative session and those funds will be available on July 1, 2023. The City of Eden Prairie has allocated funds for this project as part of their Local Water Management Plan (Stormwater Capital Improvement Projects [CIP]) adopted in December 2020. The Eden Prairie CIP funds are available for the years of 2023-2025. The LMRWD intends to cover all remaining project costs through watershed statutory means available through 103B, D and 8410.

7. APPLICATION CERTIFICATION:

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

Printed Name

Signature

Title

Date

Part 1
Natural Resources Opportunity Grant Application

THIS CONCLUDES PART 1

Part 2

Natural Resources Opportunity Grant Program

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

EXECUTIVE SUMMARY

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

Area 3 is located on the north bank of the Minnesota River in the City of Eden Prairie (City), approximately 19.6 miles upstream of the river's confluence with the Mississippi River. The underlying soils and groundwater seeps inherent to the area combined with residential development and erosive flows from the Minnesota River have destabilized the slope and resulted in continued erosion since at least 2008. There is also a City stormwater pond located downstream of the area that is exacerbating the natural erosion processes of the river by pushing the river meander towards Area 3 and causing further instability. Geotechnical experts have warned the LRMWD that the slope could fail due to the nature of the soils in Area 3 and potentially impact homes on top of the bluff. Bluff erosion has also led to sediment loading to the river and aquatic and terrestrial habitat degradation. The primary objective for this project is to provide sustainable bluff toe protection through the construction of a launchable riprap toe and floodplain barrier trench, while decommissioning the City's stormwater pond and protecting the storm sewer outfall with riprap. These steps will reduce fluvial erosion at the toe of the bluff, reduce sediment loading to the Minnesota River, and protect residential development and City infrastructure while allowing natural downstream meander bend migration over time.

1. SCOPE OF WORK

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

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

Using the area below, please provide:

- A detailed scope of work for the project that includes clearly defined tasks, deliverables, timelines, and purpose.
 - Describe the intended results (what is the benefit?).
 - Be specific, clear, and concise.
 - Describe the project area and provide supporting map(s) and relevant diagrams and/or pictures.

Part 2

Natural Resources Opportunity Grant Program

Area 3 is located on the steep bluff lands adjacent to the Minnesota River, south of the intersection of Pioneer Trail and Flying Cloud Drive in Eden Prairie, MN (Attachment 1). The bluff is approximately 700 feet long and 60 feet high. The slope has been continuously destabilized by several factors, including increased runoff from neighboring development, groundwater seeps, erosive flows from the Minnesota River, and a downstream stormwater pond that is preventing the river's natural meander migration. Attachment 2 includes a variety of drone images of the bluff and stormwater outlet/pond. **The proposed project aims to limit fluvial erosion on the bluff toe to reduce the discharge of sediment to the Minnesota River and help address the Minnesota River's Total Maximum Daily Load (TMDL). By stabilizing the riverbank, the project will simultaneously protect adjacent properties and prevent further habitat degradation in the area.** To accomplish these goals, the LMRWD retained Inter-Fluve, Inc (IF) in 2021 to assess project alternatives and complete the project design. Based on IF's alternative assessment, the following project components were recommended and have undergone 60% design:

- A buried and vegetated launchable riprap toe to limit scour and bluff toe erosion and to improve aesthetics;
- Floodplain barrier trench to limit potential flanking of rock treatments, protect the City's stormwater pipe outfall, and limit meander by Area 3;
- Remove failed bank stabilization measures at the decommissioned stormwater pond and allow the meander bend to naturally migrate downstream over time; and
- Reconfigure the stormwater pipe outfall to safely convey water from the pipe outlet to the Minnesota River through a riprap plunge pool and channel.

Although initial investigation of Area 3 began in 2010, this grant application references the design work that began in 2021. Funding for project design through 90% (Task 1) has been secured and design work through 60% has already been completed. We are seeking funding support from Hennepin County to complete the 100% design plans (Task 2). Additional funding allows the LMRWD to focus other secured funds on construction. Below are the major tasks and deliverables for this project and their anticipated completion date.

Task 1 - Project Design through 90%

Task 1.1 Alternative Review and Validation (Completed June 2021)

This task included a review of available existing data, identification of data gaps, and field data collection for a review of site alternatives and recommendations. Deliverables for this task included:

- Technical memorandum to capture outcome of site review, alternatives evaluation, and recommendations (Attachment 3, Appendix A)

Task 1.2 Preliminary Design – 60% Design (Completed January 2023)

This included design of recommended treatments, HEC-RAS modeling of existing and proposed conditions, design plans, a technical design memorandum, engineer's opinion of cost, and a permit matrix with estimated timelines and submittal needs. The deliverables for this task included the following:

- Technical design memorandum (Attachment 3)
- 60% design plans (Attachment 3, Appendix B)
- Engineer's opinion of estimated construction cost (Attachment 3, Appendix C)
- Permit matrix document (Attachment 4)
- Hydraulic modeling (Attachment 3, Appendix E)

Task 1.3 Final Design – 90% Design (To be completed fall 2023)

This task includes the development of a 90% construction document plan set, an engineer's opinion of estimated construction costs, specifications, an updated technical memorandum to capture the final design decisions and analysis, and updated permit matrix. The deliverables for this task include the following:

- 90% design plans
- Updated materials from Task 1.2

Task 1.4 Permitting (Final permits will be secured after 100% design is complete)

This task includes pre-permit meetings with relevant agencies using the 60% design plans, which have been completed. Permits will likely be needed from the Minnesota Department of Natural Resources (MnDNR), US Army Corps of

Part 2

Natural Resources Opportunity Grant Program

Engineers (USACE), LMRWD, City of Eden Prairie, Minnesota Pollution Control Agency (MPCA), and Minnesota State Historic Preservation Office (SHPO). A wetland delineation, threatened and endangered species review, and cultural resources review are also included in this task, all of which are currently underway.

Draft permit applications will be submitted to the appropriate agencies and comments will be incorporated into the 90% design package. The deliverables for this task include the following:

- Draft and Final permit applications
- Wetland Delineation Report
- Threatened and Endangered Species Review/Report
- Cultural Resources Review/Report

Task 2 - 100% Project Design

Task 2.1 Bid Documentation and 100% Construction Plans (To be completed winter 2023 - 2024)

This task includes completion of the design based on the 90% plans, development of final construction plans, final engineer's opinion of estimated construction cost, specifications, and updated design report. The deliverables for this task include the following:

- 100% plans
- Updated engineer's opinion of estimated construction cost
- Updated specifications
- Final design report

Task 2.2 Construction Administration (Begin construction winter/spring 2024)

This task includes contract award, construction administration, and project closeout tasks such as final inspection, as-built survey, and warranty inspection and follow-up. The deliverables for this task include the following:

- Contract documents
- As-built survey

Task 3: Land Acquisition (To be completed winter 2023-2024, prior to construction)

This task includes purchasing private property and obtaining appropriate easements for construction of the project. The deliverables for this task include the following:

- A purchase agreement
- Updated survey plat
- Easement documentation

Task 4 - Construction (Begin construction winter/spring 2024)

Task 4.1 Stormwater Pond Grading

This task includes removing failed bank stabilization measures near the City stormwater pond. Slopes will be regraded, vegetated, and stabilized with nonwoven coir blanket.

Task 4.2 Floodplain Barrier Trench Construction

This task includes the construction of the floodplain barrier trench. Minnesota Department of Transportation (MnDOT) Class II riprap gradation will be used.

Task 4.3 Storm Sewer Outlet Protection

This task includes construction of a riprap plunge pool and outlet channel that is integrated into the floodplain barrier trench to dissipate energy.

Task 4.4 Launchable Riprap Toe Construction

This task includes the construction of the large-scale launchable riprap toe along the bluff toe area. The riprap will be placed below grade, covered by excavated bank materials, and seeded. The launchable riprap toe was designed using 100-year flood peak flows, with a safety factor of 1.3, and will use MnDOT Class II riprap.

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Natural Resources Opportunity Grant Program

Part 2

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2. PROPOSED BUDGET

Evaluation Criteria
Complete project budget is consistent with the scope of work and estimates are clear and reasonable.
Project attempts to leverage other, and preferably several, local, state, or federal resources.
The project budget represents a good value for the work and natural resource benefit achieved.

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

Using the areas below, please provide:

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

Proposed Project Budget	
Task Elements	Total Project Cost
1. Task 1. Project Design through 90%	\$ 273,009
2. Task 2. 100% Project Design	\$ 117,000
3. Task 3. Land Acquisition	\$ 38,682
4. Task 4. Construction	\$ 5,500,000
Total costs needed to complete:	\$ 5,928,691

****See Attachment 5 for a detailed budget for Task's 2 and 4. Because Task 1 and Task 3 are currently underway and have been ongoing over several years, a detailed cost breakdown was not included for these Tasks.**

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

Total Project Cost	\$ <u>5,928,691</u>
Natural Resources Opportunity Grant request	\$ <u>50,000</u>

Match sources:

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

Funding Source: <u>State of MN Capital Grant</u>	\$ <u>2,750,000</u>
Funding Source: <u>City of Eden Prairie</u>	\$ <u>500,000</u>
Funding Source: <u>LMRWD</u>	\$ <u>2,678,691</u>

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

The State of Minnesota Capital Grant funds are secured and available for use as of July 1, 2023.

The City of Eden Prairie funds are secured and budgeted in their Local Water Management Plan.

Lower Minnesota River Watershed District funds are secured through watershed statutory means available to them through 103B, D and 8410.

3. PROJECT NEED AND BENEFIT

Evaluation Criteria

Severity of the problem/need is well documented.

Project will achieve substantial natural resources benefits, including (but not limited to) erosion prevention, pollutant (e.g., sediment, phosphorus) runoff reduction, wildlife habitat protected or restored, or climate impacts mitigated for.

Project success has been measured, and proposed methods to measure success are reasonable.

The Project provides long-term sustainability of natural resource benefits (e.g. operation and maintenance, long-term follow-up, natural resources management), and/or identifies additional projects to address specific problems area(s).

Project provides significant community benefit, such as creating a community amenity, addressing socioeconomic or racial disparities, or addressing inequities and environmental justice needs.

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

Using the area below, please provide:

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

The Area 3 bluff slope has been eroding into the Minnesota River for at least 15 years. Slope erosion contributes sediment to the Minnesota River while slope failure threatens surrounding City and private property. A bathymetric survey of upstream areas, completed in 2020, shows evidence of scouring, channel deepening, and continued significant erosion since previous surveys conducted in 2009 (Attachment 6). Based on this bathymetric survey, erosion at Area 3 is estimated to contribute 5,000 tons of sediment to the Minnesota River each year. Bathymetric surveys completed in 2021 and 2022 show continued channel movement, scour, and aggradation within the project area (Attachment 7). Without stabilization, erosion of the steep bluff will continue contributing sediment to the Minnesota River and threatening private properties and city infrastructure. Due to the continued severity of the erosion, the Area 3 project is listed in the LMRWD Water Management Plan Implementation Program and the Eden Prairie Local Water Management Plan identified as the Minnesota Riverbank Stabilization Project. This segment of the Minnesota River is also included in the MPCA's Minnesota River and Greater Blue Earth River Basin Total Suspended Solids TMDL Study in which bluff, ravine, and streambank erosion were identified as primary sources of sediment to the river.

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The proposed project will address the erosion issue by implementing the project components described in the Scope of Work to stabilize the Area 3 bluff. The technical design memorandum for the project is included as Attachment 4 in addition to the 60% design plans and provides additional detail on the project components.

Success of the project will be measured through visual observation of reduction in erosion and establishment of vegetation near the Area 3 bluff. A maintenance easement will allow for future maintenance of the project if needed; however, the proposed design is a self-sustainable and resilient system where maintenance is not anticipated. We expect to see natural downstream meander migration, and eventual launching of the riprap toe, however, the timeline for this is unknown.

Community benefits include protection of private property, City infrastructure, and restoration of degraded habitat along the bluff, while also preventing further destruction of habitat due to erosion. Reducing sediment load into the river will improve water quality for aquatic species including two endangered mussel species, while providing progress toward state water quality standards.

The project aligns with all of the major goals within the Hennepin County's Natural Resources Strategic Plan, providing an exciting opportunity for a large-scale natural landscape restoration in a high-visibility area (goals 2 and 4). The proactive approach to stabilize a steep bluff along the Minnesota River will improve water quality in a resource that struggles with sediment loading (Goal 1), allowing the County to invest in a lasting solution to maintain the river valley and its bluffs. Finally, this forward-thinking collaboration has gained state funding support to provide a multi-benefit solution, allowing Hennepin County to foster an effective partnership (Goal 5) to provide critical improvements to both resident and natural habitat.

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4. PROJECT TEAM

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

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

Using the area below, please provide:

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

Lower Minnesota River Watershed District (LMRWD) – The LMRWD, if awarded funds, will be the project grantee and oversee administration of the project.

Linda Loomis – District Administrator and Project Advisor

Email: naiadconsulting@gmail.com

Linda has served as the District Administrator since 2013, managing the diverse natural resources in the southwest metro watershed district. Working between the Board of Managers and the watershed district consulting staff, she drives project implementation guided by the LMRWD Watershed Management Plan. Under Linda's direction, the LMRWD leads a robust permitting program, capital improvement projects, channel maintenance, stormwater management, and education and outreach program. A few of Linda's recent project examples include:

- Administrator for the East Chaska Creek Bank Stabilization project in Chaska, MN
- Administrator for the Seminary Fen Ravine Restoration and Stabilization in Chaska, MN
- Administrator for the Spring Creek Sites 1&2 Bank Stabilization projects in Carver, MN

Young Environmental Consulting Group (Young Environmental) – Young Environmental is the District Engineer for the LMRWD and will help oversee administration and execution of the project.

Hannah LeClaire, PE – LMRWD Project Manager

Email: hannah@youngecg.com

Hannah is a water resources professional engineer with 8 years of experience in water resources design and modeling. She specializes in ecological, habitat, and stream restoration projects that provide sustainable solutions for both natural systems and systems affected by human activities. She brings a wealth of knowledge and experience in civil design and project management to ensure projects are successful—from planning and funding to design and construction. As project manager, Hannah will act as the primary coordinator to guide project stakeholders, partners, and consultants seamlessly through the project and ensure the project goals are being met while maintaining the project timeline.

Hannah's Project Experience:

- Project Engineer for the Roseau River Restoration project in Roseau County, MN
- Project Engineer for Upper Buffalo River Restoration project in Becker County, MN
- Design Engineer and Hydraulic Modeler for Lower Otter Tail River Restoration project in Wilkin County, MN

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Meghan Litsey, CPESC – Senior Regulatory/ Permitting Analyst
Email: meghan@youngecg.com

Meghan is a senior water resources planner with 10 years of experience in water and natural resources, stormwater management, and erosion and sediment control. Meghan has worked on large and complex construction projects, performing as a compliance manager to facilitate environmental permitting and documentation, regulatory agency coordination, and training and education. Meghan will lead the environmental permitting for Area 3, which is essential to the project's success. She will ensure that the appropriate permits are secured in a timely manner to avoid project delays.

Meghan's Project Experience:

- Permitting Coordinator for the Gold Line Bus Rapid Transit project in Saint Paul, MN
- Permitting Coordinator for the Purple Line Bus Rapid Transit project in Saint. Paul, MN
- Environmental Compliance Manager for I-94 Maple Grove to Rogers Design-Build project by the MnDOT Metro District

Inter-Fluve, Inc (IF) – IF has been retained by the LMRWD for completion of the 100% design and bidding documents.

Jonathon Kusa, PE – Design Principal in Charge, Engineer on Record
Email: jkusa@interfluve.com

Jonathon is a professional engineer with more than 22 years of experience. He brings a well-rounded technical background in erosion control, river restoration, and hydrologic and hydraulic modeling. His recent experience both locally and nationally on similar work will help guide the design team through analysis, design, and permitting.

Jonathon's Project Experience:

- Minnesota Riverbank Stabilization project in LeSeuer, MN
- Sand Creek Bluff Toe Stabilization and Sediment Reduction project in Jordan, MN
- Big Sioux Streambank Stabilization project in Sioux Falls, SD

Maren Hancock, PE – Design Project Manager
Email: mhancock@interfluve.com

Maren is a water resources professional engineer with 8 years of experience. She brings experience in designing and providing construction oversight for riverbank stabilization projects across the Midwest. Maren is detail-oriented and will provide leadership on the consultant team to ensure positive project outcomes.

Maren's Project Experience:

- Sand Creek Bluff Toe Stabilization and Sediment Reduction project in Jordan, MN
- Big Sioux Streambank Stabilization project in Sioux Falls, SD
- Kenilworth Channel Stabilization project in Minneapolis MN

Nick Jordan, EIT – Design Engineer-in-Training
Email: njordan@interfluve.com

Nick is an engineer-in-training with 4 years of experience. He will support the project in several aspects including surveys, final design, and construction oversight. He has a background in geotechnical engineering and river science.

Nick's Project Experience:

- Kenilworth Channel Stabilization project in Minneapolis, MN
- Colonial Park Ravine Stabilization and Wetland Enhancement project in Racine, WI
- Lyons Park Creek Bank Erosion project in Milwaukee, WI

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Sean Morrison – Geomorphologist and Permitting

Email: smorrison@interfluve.com

Sean is a geomorphologist, supporting project geomorphology, data collection, and permitting assessment as well as collecting essential drone imagery for the project. He has 3 years of experience in geomorphic assessment of urban watersheds, bank and bluff-toe stabilization, and other natural resource services.

Sean's Project Experience:

- Big Sioux Streambank Stabilization project in Sioux Falls, SD
- Kenilworth Channel Stabilization project in Minneapolis, MN
- Thornberry Creek Fluvial Geomorphic Assessment project in Hobart, WI

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5. PROJECT DEVELOPMENT PROCESS/ LOCAL COMMITMENT

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

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

Using the area below, please provide:

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

Decision Making Process

Erosion at Area 3 was discovered during a joint study by the LMRWD and the City in 2008. The LMRWD has continually been increasing its focus on steep slope protection through the development of Rule F – Steep Slopes and the Steep Slopes Overlay District, which limits development and stormwater management on and around steep slopes. Due to the bluff's proximity to residential development and City infrastructure, there was increased concern over the unpredictability of the potential slope failure. As such, the Area 3 project was highlighted as a priority by both the LMRWD and Eden Prairie.

Several studies were conducted from 2009 to 2020 to monitor the slope and determine potential solutions; however, the current project design work began in 2021 when Inter-Fluve, Inc (IF) was retained to conduct an alternatives analysis and produce recommendation solutions. The alternatives analysis was done for seven alternatives, including recommended alternatives from previous studies. Due to site and technology constraints, IF only pursued three alternatives: (1) a large-scale rock toe stabilization, (2) localized rock and bioengineering toe stabilization, and (3) no action with monitoring. In all scenarios, it was recommended that the City stormwater pond be decommissioned. Following bathymetric and topographic surveys conducted in May 2021, IF recommended Alternatives 1 or 3. The LMRWD chose Alternative 1 (project components described in the Scope of Work section as well as the 60% technical design memorandum) to address sedimentation to the Minnesota River while proactively protecting private residences and City stormwater infrastructure.

Local Commitment and Involvement

The LMRWD and City have partnered throughout the life of the project beginning in 2008. The City has identified the project as a priority in the Eden Prairie Local Water Management Plan as the Minnesota Riverbank Stabilization project and lists the project on their Water Quality Planning webpage. The LMRWD and Eden Prairie have jointly held numerous neighborhood meetings to keep property owners up to date on project progress and to build local support. To move the project forward, Eden Prairie pursued the decommissioning of the City stormwater pond near Area 3 with the MPCA. The City has also proactively budgeted \$500,000 for the Area 3 project as part of their Local Water Management Plan (Stormwater Capital Improvement Projects) adopted in December 2020.

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As the project approaches construction, the LMRWD has successfully pursued state funding, and the project now has monetary support from the state, city, and watershed district level. This is a larger, more complex problem than either the LMRWD or the City can tackle individually. Funding and support from multiple sources will help to ensure this large-scale construction project can be completed.

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6. READINESS TO PROCEED

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

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

Using the area below, please provide:

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

Stakeholders for the project include the LMRWD, Eden Prairie, and nearby landowners. The LMRWD has coordinated with the City at each step of the bank stabilization project, and the City has shown its support through sharing data and information, coordinating with the MPCA, and providing essential funds. Existing City right-of-way and maintenance easement covers approximately 50% of the project area, while the other 50% of the project area is privately owned. The LMRWD is currently in discussions with the property owner about purchasing their land for construction of the launchable riprap toe (Task 3.1). The private landowners realize that there is little developable land on the bluff and have shown interest in selling and they have retained a realtor to represent them in the sale of the property. The LMRWD will continue discussions with the landowner as the project develops.

After the project alternative was selected, a permit matrix was developed to support the design process (Attachment 5). Preliminary discussions with the appropriate permitting agencies have already occurred and we are in the process of developing the wetland delineation report, threatened and endangered species report, and cultural resources report (Task 1.4). These reports are essential to the permit applications that will be submitted closer to the 90% and 100% plan completion.

The LMRWD is currently providing funds for completion of the 90% design plans (Task 1), which are anticipated to be completed in the fall of 2023. The wetland delineation report, threatened and endangered species review and cultural resources review are also scheduled to be completed in this timeframe, which will allow us to proceed with draft permit applications that will be ready for submittal upon completion of the 100% construction plans. We are requesting funds from Hennepin County for completion of the 100% Project Design which includes development of the 100% construction plans and bid documents (Task 2). Construction funds have been secured through the State of Minnesota Capital Grant and the City. The LMRWD plans to cover the remaining construction costs, which will ensure the project is shovel-ready after 100% design is complete and permits are secured.

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THIS CONCLUDES PART 2



Attachment 1: Area 3 Slope Stabilization Project Location



LEGEND

- Approximate Area 3 Riverbank Stabilization Extents
- Approximate Area of Erosion
- Hennepin Co. Parcel Data
- Hennepin Co. 2-ft Contours
- Public Waters
- Public Waterbodies
- LMRWD Boundary

LMRWD Watershed Location Map



Attachment 2 – Area 3 Bluff Photos



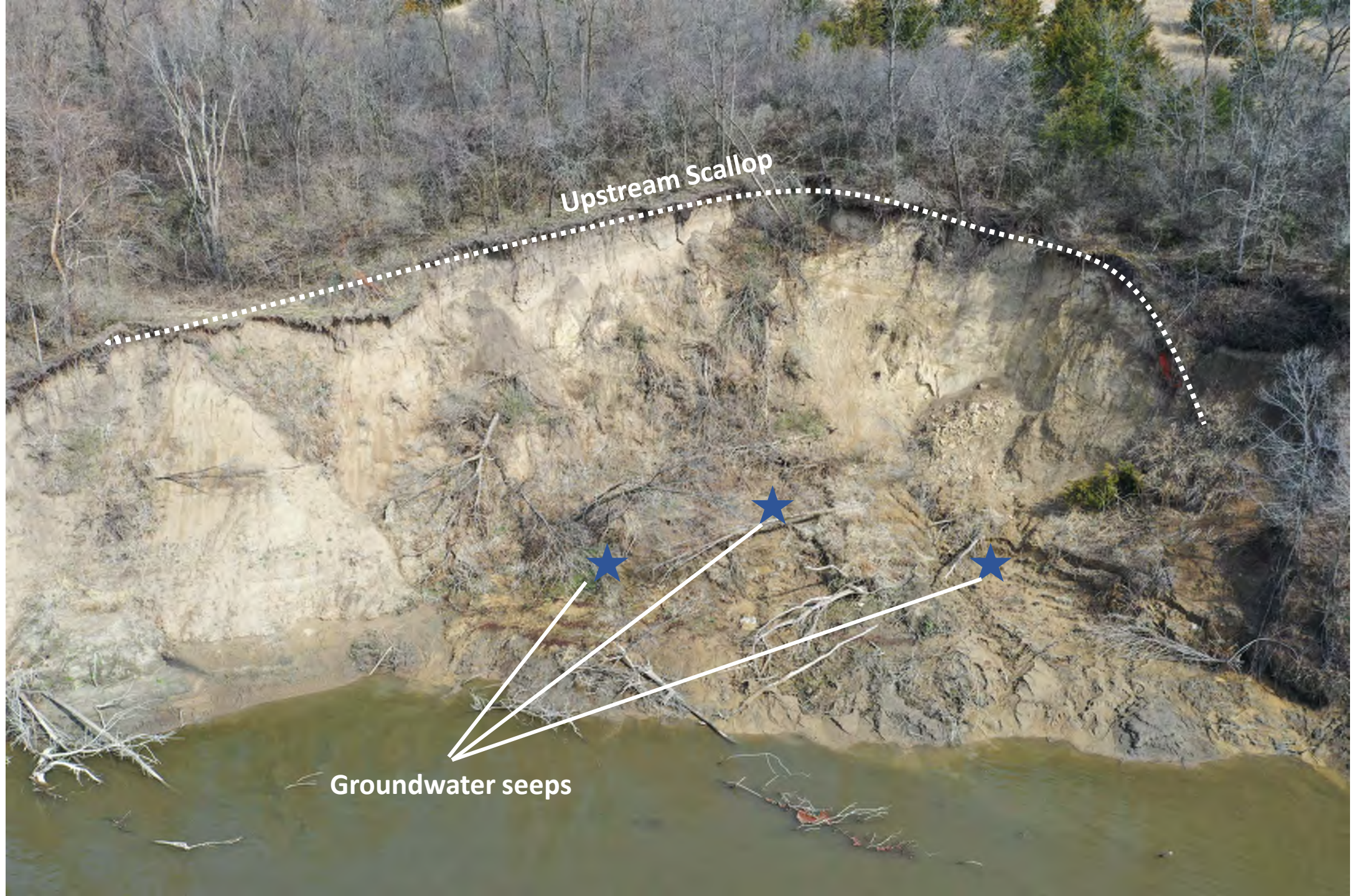
UPPER BLUFF

BLUFF

BLUFF-TOE
(EXTENDS TO CHANNEL BOTTOM)

Upstream Scallop





Upstream Scallop

Groundwater seeps





Stormwater
Outfall

This aerial photograph shows a riverbank with a prominent incised channel. The channel is a deep, narrow cut in the bank, filled with dark water, and runs parallel to the river. To the right of the channel, there is a stormwater outfall, which is a small, rectangular structure with a metal grate. The surrounding area is covered in dry, yellowish-brown grass and some low-lying shrubs. The river water is a murky, brownish-green color.

Incised Channel



Area 3 Bluff

City stormwater pond

Incised
stormwater
channel

Attachment 3 – Area 3 60% Design Memorandum and Plans



Area 3 Bluff Toe Stabilization and Stormwater Pond Grading 60% Basis of Design Report

SUBMITTED TO

Lower Minnesota River Watershed District

January 2023

Area 3 Bluff Toe Stabilization and Stormwater Pond Grading 60% Basis of Design Report



LOWER MINNESOTA RIVER
WATERSHED DISTRICT

SUBMITTED TO

Lower Minnesota River Watershed District
112 E. 5th Street, #102
Chaska, MN 55318



PREPARED BY

Inter-Fluve, Inc.
1539 Grand Ave.
Saint Paul, MN 55105

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1. Introduction

In 2021, the Lower Minnesota River Watershed District (LMRWD) retained Inter-Fluve, Inc. (Inter-Fluve) to assess the eroding bluff toe at “Area 3” along the Lower Minnesota River and to evaluate alternative concept-level solutions to stabilize the bluff toe against fluvial erosion processes. Other consultants were retained to assess the upper bluffs for geotechnical stability and erosion from seepage. Inter-Fluve’s findings and conceptual alternatives from the earlier assessment and design work are summarized in a Technical Memorandum entitled “Area 3 Findings and Alternative Review Memorandum” dated May 18, 2021 and in an addendum to that memorandum dated June 3, 2021.

Following the alternatives assessment, LMRWD decided to pursue a project to implement a launchable riprap toe designed to protect the bluff toe to the estimated 100-year scour depth. LMRWD also coordinated with the City of Eden Prairie and the State of Minnesota Pollution Control Agency (MPCA) to get authorization to decommission the non-functioning stormwater pond downstream of Area 3. LMRWD retained Inter-Fluve in 2022 to develop conceptual, 60%, and 90% designs documentation for the project, which will include the launchable riprap toe and decommissioning of the stormwater pond. Stormwater pond infrastructure design adjustments are being completed by Houston Engineering, Inc. (HEI). This document serves as the basis of design report for Inter-Fluve’s 60% design work and will be updated at the 90% design stage.

1.1 PROJECT OBJECTIVES

The primary objective for this project is to provide long-term bluff toe protection along the Area 3 bluff to reduce fluvial erosion at the bluff toe. Previous work on the area has recognized the balance that must be struck between bluff toe protection, maintaining functionality of existing infrastructure, and the health of the Minnesota River. In meeting the project objective, the project will also reduce pressure at the location of the Area 3 bluff by removing bank protection measures associated with the former stormwater pond, thus allowing downstream meander bend migration to, over time, erode the former stormwater pond.

1.2 PROJECT AREA

The Area 3 project is located along the left bank of the Lower Minnesota River in Eden Prairie, Minnesota, approximately 19.6 river miles upstream of the Minnesota River’s confluence with the Mississippi River (Figure 1). The site is adjacent to a former roadway that is now used as a walking path and has also been used at times as a construction access road. The project area is divided into three sections vertically, and each is characterized by a difference in slope (Figure 2). The lowermost section, the bluff toe, has an approximate four horizontal to one vertical (4H:1V) slope, and is periodically inundated by the Minnesota River. The middle portion of the slope is an eroding bluff characterized by steep (approximately 0.5H:1V) sandy slopes, and is devoid of vegetation. Several groundwater seeps emerge from the face of the bluff throughout its lower half. The upper portion of the slope (termed “upper slope”) is characterized by milder slopes (approximately 4H:1V on

AREA 3 BLUFF TOE STABILIZATION & STORMWATER POND GRADING

average) with grassy vegetation, shrub/scrub vegetation, and some gully erosion. The upper limit of the upper slope abuts a residential development with maintained lawns.



Figure 1. Area 3 location on the Minnesota River. Map provided by LMRWD.



Figure 2. Drone imagery showing site description terminology used in this report.

1.3 PREVIOUS WORK BY INTER-FLUVE

Inter-Fluve has previously completed site assessment, alternatives analysis, cost estimation, and preliminary hydraulic modeling work for the project. Documentation of this work is included in the following technical memoranda, which are included in Appendix A.

- ▶ “Area 3 Findings and Alternative Review Memorandum” dated May 17, 2021.
- ▶ “Addendum #1 to Area 3 Findings and Alternative Review Memorandum”, dated June 3, 2021.
- ▶ “2D Hydraulic Modeling Investigation” memorandum, dated July 21, 2021.

2. Site Assessment

Previous site investigation and geomorphic assessment work has been completed in 2021 for the Area 3 project, and is discussed in detail in Inter-Fluve’s previous memoranda listed in Section 1.3. Specifically, this work includes geomorphic assessments of the site and watershed, site topographic survey, and bathymetric survey of the Minnesota River in the vicinity of the project area. The following descriptions summarize relevant information from those reports and discuss recent work completed since the 2021 site assessment.

2.1 GEOMORPHIC ASSESSMENT

The eroding section of the Area 3 bluff is approximately 700 feet long and 60 feet high, with evidence of erosion concentrated in three scallops spaced along the bluff top. The location of these scallops coincides with the location of groundwater seeps along the bottom half of the eroded bluff. The bluff erosion has impacted approximately 500 feet of the former road/trail surface. The bluff is composed of exposed fine sand with sparse gravels concentrated in the upper ~10 feet of the bluff face. Alluvial material, likely sourced from the eroding bluff with minor flood deposits, is present at the base of the eroding bluff. Only minimal vegetation was observed on the bluff face. Upstream and downstream of the project site, both banks of the Minnesota River are actively eroding. At Area 3, the left bank (bluff toe) is erosional, and the right bank is depositional. At the non-functional stormwater pond downstream of the bluff, there is a floodplain bench dominated by invasive reed canary grass and willow shrubs. A stormwater outlet empties into an eroded engineered channel that in turn empties into the Minnesota River. Based on review of historical air photos and past reports, it is clear that several phases of construction and repair have been done to restore or rebuild the pond. We understand that in 2013 a rock toe and bioengineering stabilization project was implemented to fortify the river bank along the length of the pond. However, due to high water, the planted vegetation never established.

Over time, river meanders can translate across valleys, while generally migrating down-valley, a process which was observed at the project site and discussed in previous memos and reports. The recent erosion of the former stormwater pond feature is the process of the Minnesota River meander at Area 3 moving down-valley. However, this natural process is inhibited by the presence of the stormwater pond feature. Recent efforts to stabilize the bank at this location are limiting down-valley channel movement and extending cross-valley translation into the bluff toe at Area 3.

Hydraulic modeling and field observations of the bluff at Area 3 inform our understanding of the sediment transport processes occurring near the bluff toe. As mass wasting of the bluff slope occurs, sand and gravel are transported from the bluff and deposited at the base of the bluff slope. Through this process, bluff sediment is a source of sediment to the river. During periods of low flow in the Minnesota River, submerged sand and very fine gravel are entrained and transported along the left river bank. During periods of small floods (approximately 10,000 cfs to 17,000 cfs) and during periods of sharply rising and falling flow levels, larger materials on the banks might be mobilized. As was stated in the preliminary analysis (Inter-Fluve, 2021a), fluvial entrainment of material along the left river bank is the initial cause of Area 3 bluff slope failures. Subsequent mass wasting, seepage, and rill erosion continue to contribute sediment from the bluff above the ordinary high-water line into the toe area and the river.

Entrainment of toe material is also the primary cause of bank erosion downstream of the Area 3 bluffs, and in this area, active scour is more recent and visible. As evidenced by the photograph of the base of the bluff taken following spring runoff flows in 2021 (Figure 3), bank materials primarily consist of sand but do show minor winnowing, or development of an armor layer.



Figure 3. Area 3 bluff toe facing east, May 2021.

2.2 SITE SURVEY

To supplement topographic and bathymetric survey data collected in 2021, Inter-Fluve collected updated survey data in October 2022 in the project area. Topographic survey data was collected using land-based survey methods and RTK-GPS. Bathymetric survey data was collected with a remote-controlled Hydrone catamaran, which was equipped with a single-beam sonar synced with RTK-GPS. Bathymetric survey data were processed initially using Carlson survey software to remove low-quality or erroneous points, and output was manually reviewed to remove points that were judged to be erroneous.

Survey data collected in 2022 were compared and combined with previously collected data to create a comprehensive digital terrain model of the project area. Comparison between the 2021 and 2022 bathymetric surveys shows how the channel has changed over the course of a year. The 2021 survey was collected during a brief low water period in May 2021. After the survey, flows increased to nearly 8,000 cfs before falling over the course of the summer to under 600 cfs in August of 2021. Flows then increased through the fall of 2021 and spring of 2022 to peak at over 30,000 cfs in June 2022. Flows decreased throughout the rest of the summer with a low flow of below 600 cfs in October 2022.

The results of the bathymetric survey comparison reflect the channel response to this wide range in flows between surveys (Figure 4). The Minnesota River bed is primarily sand, and as Inter-Fluve's hydraulic modeling demonstrates (see Section 3.2), sand is mobile at all modeled flow events. The survey comparison shows deposition primarily along the inside of the meander bend. Erosion is most prevalent at the upstream end of the survey and along the nonfunctional stormwater pond area. Along the bluff, erosion is most prevalent at the upstream extent of the project and lessens downstream.

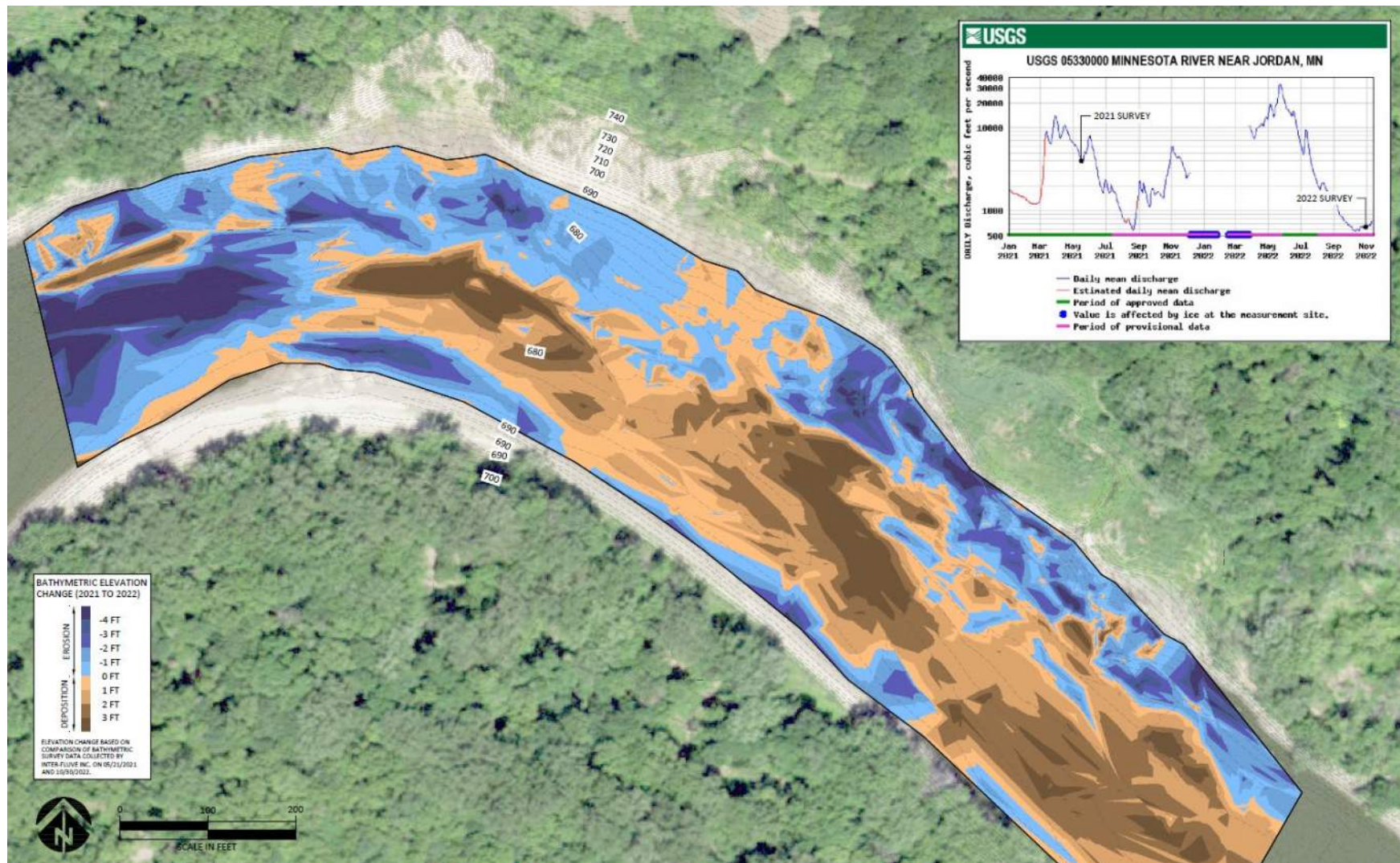


Figure 4: Comparison between 2021 and 2022 bathymetric surveys showing erosional (blue) and depositional (brown) areas.

These results align with previous findings and expected geomorphic changes. The erosion along the bluff face, likely from the high flow event in early summer of 2022, is typical of an outside meander bend. Further sloughing of material from the bluff face will replace the eroded sediment. Erosion along the stormwater pond is prevalent and further shows the Minnesota River's continued migration downstream and away from the Area 3 bluff. Deposition along the inside of the meander bend is typical.

3. Hydrology and Hydraulics

3.1 HYDROLOGIC ANALYSIS

Flow data used in this analysis is available from USGS gage station 05330000 on the Minnesota River near Jordan, MN, located approximately 20.4 miles upstream from Area 3. Peak discharge estimates included in the most recent Flood Insurance Study (FIS) report developed for Minnesota River (FEMA, 2016). Peak flow discharges considered for engineering analysis of the project area were estimated from FIS peak flow estimates developed for the gage location in Jordan (Table 1).

Smaller flood and sub-bankfull flows were estimated from gage station records over the period of record from 1991 to 2022. The mean daily exceedance flows reported in Table 1 correspond to the percentage of time that a given flow is exceeded or equaled over the gage period of record. Flows included in Table 1 were included in hydraulic models in the project.

Table 1. Minnesota River flows included in 2-D model based on FIS flows at USGS gage station 05330000.

Flow Description	Annual Exceedance Probability (AEP)	Flow (cfs)
2-year peak flood event	50%	17,000
10-year peak flood event	10%	48,500
50-year peak flood event	2%	85,300
100-year peak flood event	1%	103,000
500-year peak flood event	0.2%	148,000
70% Mean Daily Exceedance	N/A	1,250
50% Mean Daily Exceedance	N/A	2,500
15% Mean Daily Exceedance	N/A	10,000

3.2 HYDRAULIC ANALYSIS

Inter-Fluve has previously completed preliminary one-dimensional (1-D) and two-dimensional (2-D) hydraulic modeling of the Area 3 site to inform project alternatives analysis. Inter-Fluve's scope for

the engineering design phase of the project includes 2-D hydraulic modeling but does not include 1-D hydraulic analysis to support floodplain permitting, which will be completed by others.

3.2.1 Model Development

The 2-D model developed for the project is based on the model developed by Inter-Fluve during the alternatives analysis portion (Inter-Fluve, 2021a) of the project. References to the 1-D model used during model construction are based on the 1-D model modified by Inter-Fluve during the alternatives analysis period of work.

Use of a 2-D model for the design of bluff toe stabilization measures is warranted because of the significant interactions between overbank and channel flow during high flows in the Minnesota River, and because flow dynamics at the project site are bidirectional in nature, as flow moves both laterally and downstream. Compared to the 1-D model previously investigated for this project (Inter-Fluve, 2021), the 2-D model provides greater detail and accuracy regarding the location and magnitude of hydraulic forces. Figure 5 shows the extents of the 1-D and 2-D models in relation to the project area.

The 2-D model was updated in HEC-RAS Version 6.3 (USACE, 2022) from the 2-D model previously constructed for the alternative analysis phase of this project. . The 2-D model domain extends from 15,000 feet upstream of Area 3 to 1-D model Section 50, located approximately 6,500 feet downstream of the project area. The model includes the entire width of the Minnesota River floodplain. The upstream and downstream model boundaries are located sufficiently far from Area 3 such that uncertainties in model boundary conditions are not anticipated to influence hydraulics calculations in the project area.

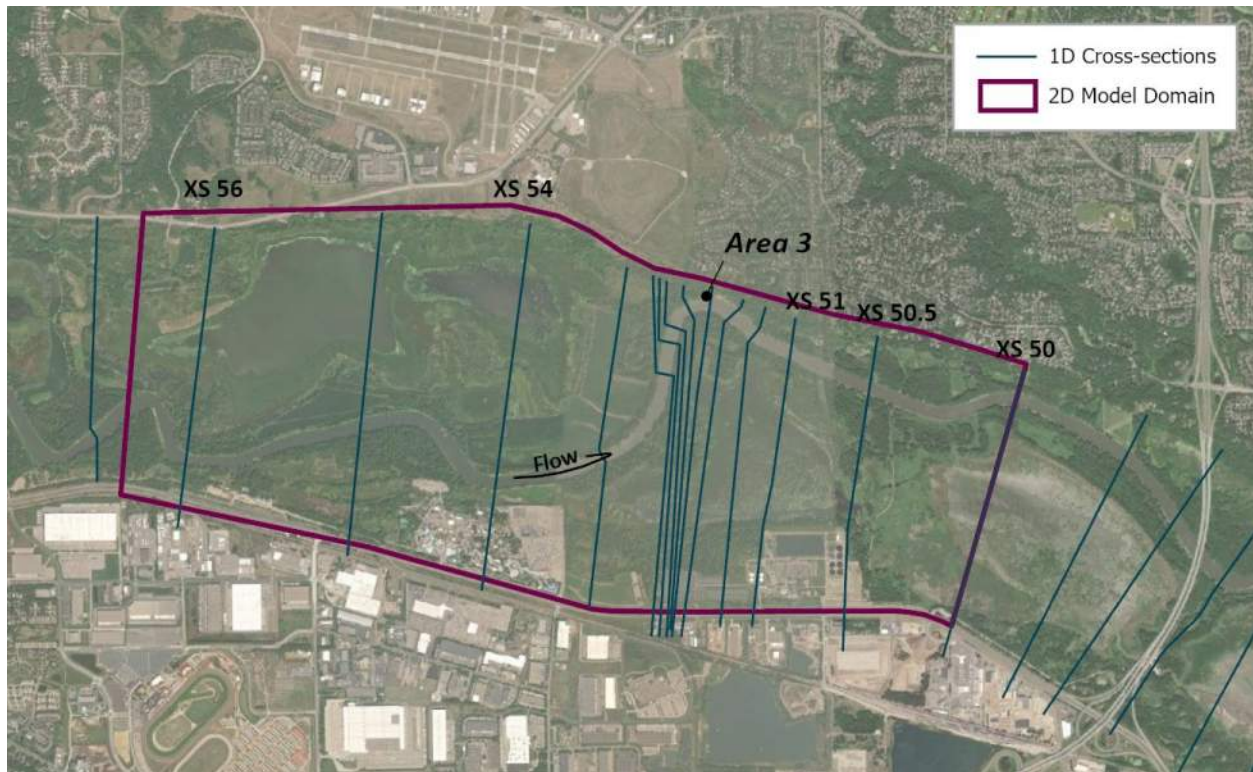


Figure 5. 2-D model domain. Cross section numbers correspond to 1-D model sections.

Topographic and bathymetric data used for modeling is based on four separate datasets, which were combined into a composite digital terrain model (DTM) of the Minnesota River and its valley. In general, survey data collected in 2022 was given preference over data collected in 2021, with the exception of areas in which land surface change was negligible between surveys, and where combined data produced a more accurate and comprehensive terrain model. More dynamic areas of the project area relied on 2022 survey data for the terrain model. The following datasets were used to construct the DTM:

- ▶ Topographic and bathymetric survey collected by Inter-Fluve in 2021 and 2022
- ▶ Lidar collected in 2011 and downloaded from MnTopo in April, 2021.
- ▶ Bathymetry collected in 2015 (Call et al., 2018), downloaded from Hydroshare in May, 2021.

The 2-D model domain contains computational cells varying in size. Larger cells were located in overbank areas with less topographic and vegetative variation. Break lines were used to align cells along the channel banks and to avoid artificial computational leaking between cells.

Hydraulic roughness was represented in the computational domain using a spatially varied Manning's n layer selected from visual inspections of publicly available satellite imagery and in-person observations of site conditions. Values were obtained from recommendations from the HEC-RAS 2-D user's manual (USACE, 2022) and adjusted based upon field observations.

Boundary conditions for the model were obtained from flow and stage information from the 1-D hydraulic model previously developed by Inter-Fluve (Inter-Fluve, 2021b), and from surveyed water surface elevations matched with discharge measurements at the USGS gage in Jordan, MN. The downstream boundary condition was set as a rating curve using a stage/discharge relationship obtained from the 1-D model modified to remove backwater effects from the Mississippi River, which were included in the original 1-D model transmitted to Inter-Fluve. The resulting boundary condition assumes a steeper water surface slope, which produces more conservative (higher) estimates of velocity and shear stress than models considering backwater influences from the Mississippi River. The upstream boundary condition is set as an inflow hydrograph consisting of a wide range of flood flows and lower, sub-bankfull flows. Flows are input at quasi-steady state stepped hydrographs, in which flows of interest are allowed to come to a steady-state condition throughout the model mesh before flow is increased to the next flow of interest. This stepped hydrograph likely results in conservative estimates of floodplain inundation, as floodplain storage is allowed to reach a steady condition for a given flow.

Model validation was achieved by iteratively adjusting roughness values until satisfactory agreement was reached between 2-D model results and calibrated 1-D model results at the project area.

Proposed conditions were represented in the model to represent post-project conditions. Trenched stone at the bluff toe was represented using an updated roughness value of 0.05 to represent a vegetated condition. Bank grading over the trenched stone is expected to match existing grades, and no updates to the terrain were made in that location. The stormwater pond bank was graded using RAS Mapper's terrain modification tool to reflect proposed grading in that area.

3.2.2 Model Results

Results of 2-D hydraulic modeling are summarized below, and velocity and shear stress model results for flood flows are included in Appendix E. The 2-D hydraulic model results indicate that the studied river reach is largely confined to the primary channel during flow events below approximately 17,000 cubic feet per second (cfs), which corresponds to the 50% annual exceedance probability (AEP) flow event. Above that flood magnitude, overbank flows fill floodplain ponds and wetland storage. During large floods (above approximately 48,500 cfs), the majority of flow moves in the down-valley direction across the floodplain rather than through the channel. Flow velocities and shear stresses in the Minnesota River are strongly influenced by changes in flow and stage. Sub-bankfull flows are confined to the main flow channel and exhibit greater flow velocities and shear stresses compared to floods which overtop banks.

The maximum estimated shear stress on the channel bed is 0.13 pounds per square foot (psf), which occurs at 15,000 cfs, when most flow is confined to the channel. This and other sub-bankfull flows are expected to mobilize fine to medium gravel on the channel bed. Along the river bank, modeling indicates shear stresses are diminished to 0.04-0.06 psf, and may mobilize very fine gravels to coarse sand particles between 2 and 4 mm in diameter.

Flood flows result in relatively low shear stress on the channel bed, though moderate floods (up to and including the 10-year recurrence interval flood) result in moderate shear stress on the left bank and bluff-toe. Modeled shear stresses on the banks during the 2-year and 10-year flood flows range between 0.01 and 0.05 psf. Flow velocities near the bluff toe during these small to moderate magnitude floods range between 1.5 and 3.0 ft/s. Large floods greater than the 10-year flood flow have modeled shear stresses below 0.03 psf and velocities less than 2.0 ft/s along the bluff toe, and are expected to be competent to mobilize sand-sized particles on the bed. These large floods are expected to produce the greatest scour depths along the river bend at Area 3.

The location of maximum shear stresses and velocities shift with increased flow (Appendix E). During the lowest flow modeled (1,250 cfs), the greatest shear stresses are concentrated at the Area 3 downstream pool tail-out. As flow increases, the extent of the zone of greatest shear stress becomes more uniform in the channel through the bend. As flows approach the bankfull stage, modeled shear stress and velocity are greatest near the inside of the bend upstream of Area 3, and along the outside of the bend along the former stormwater pond's bank. These zones are consistent with the zones of increased velocity and shear stress associated with naturally migrating meanders in alluvial rivers (Dietrich and Smith, 1984).

The failed bioengineering bank protection measures downstream of the eroding bluff at Area 3 were noted in previous project memos. Modeled shear stresses on this bank during floods range from 0.2-0.4 psf and are consistently an order of magnitude greater than shear stresses along the bluff toe. The extent of elevated shear stress corresponds to bank erosion areas noted during field investigations.

4. Proposed Project Design

4.1 PROPOSED PROJECT ELEMENTS

The proposed project design was selected as the preferred alternative by LMRWD following Inter-Fluve's alternatives assessment and hydraulic model work in 2021, and is described in Appendix A. Overall, the proposed project elements are intended to meet the project objectives by limiting the potential for future meander migration at the Area 3 bluff toe, bluff, and upper slope, protecting existing stormwater infrastructure, and allowing river processes to continue. Project elements include:

- ▶ A buried launchable riprap toe at the bluff toe to limit scour and bluff toe erosion.
- ▶ A floodplain barrier trench adjacent to the bluff to limit potential flanking of rock treatments, and to protect the City of Eden Prairie's stormwater pipe outfall.
- ▶ Reconfiguration of the channel connecting the pipe outfall with the Minnesota River.

- Removal of failed bank protection measures along the non-functional stormwater pond, which will allow banks to erode freely back to the barrier trench as the meander bend migrates downstream over time.

Per the request of the LMRWD, design elements intended to protect against bluff toe erosion were designed to the 1% annual exceedance probability (AEP) peak flood event. Engineering work done to realign the channel connecting the stormwater pipe with the river is the responsibility of another project subconsultant, HEI, and is beyond the scope of this report.

4.1.1 Launchable Toe

The proposed design includes a large-scale launchable riprap toe along the bluff toe area. The rock toe is designed to mitigate fluvial erosion of bank materials at high flow events, and to drop into the channel to armor lower portions of the bank as the bank scours further. To meet regulatory no-rise floodplain requirements, the launchable riprap will be placed in a trench below grade, and a veneer of excavated bank materials will be placed over the top and seeded; matching existing grade.

The launchable toe was designed to protect against scour that may occur during flow events up to and including the 1% AEP design peak flow. In the project area, the Minnesota River has a sand bed, and is subject to bend scour during floods and local scour caused by bed disturbances such as downed trees. The launchable toe is designed to protect against bend scour and not local scour, as bend scour is likely to be much greater in magnitude and concentrated at the bluff toe. Ultimate scour depth estimates increase with discharge, and the 1% AEP event corresponds to a scour depth of 18.5 feet. The launchable volume of riprap was determined using the methods recommended by the USACE (Maynard and White, 1995), assuming an ultimate slope of 2H:1V, an ultimate launched thickness of two times the D100, and placement in the dry.

Material that will be placed within the trench is designed to be immobile at the ultimate launched condition of the riprap material with a factor of safety of 1.3. The moment-stability analysis method was used to determine immobile grain sizes based on maximum shear stresses in the channel and on the banks. A MnDOT Class II riprap gradation was selected as the design gradation.

4.1.1 Floodplain Barrier Trench

Floodplain barrier trenches are included in the proposed project to prevent potential outflanking of the launchable portion of the riprap, and to protect stormwater infrastructure on site. The barrier trenches are designed using the same methodologies as the launchable stone toe and will consist of the same gradation of riprap.

4.1.2 Stormwater Pond Bank Grading

Stormwater pond bank grading will remove aesthetically unappealing and ecologically deleterious failed bank stabilization measures and replace them with temporary erosion control blankets and seed. Slopes in this area will be graded back from the elevation of the 50% AEP flood and will be planted with native riparian seed, live willow stakes, and bare root stock shrubs and stabilized with

nonwoven coir blanket. The intention is to prevent fine sediment loading to the river in the short term following construction. The relatively shallow root structure of native grasses and forbs (compared to the overall bank height) will not prevent mass wasting of the bank over the longer term as the meander bend migrates downstream, which is the geomorphic trajectory of the river reach.

4.2 CONSTRUCTION CONSIDERATIONS

The proposed project will be constructed in a relatively challenging location from the perspective of access, staging, and water control. Primary construction considerations include:

- ▶ Previous engineering work on the stormwater pond area utilized the road grade cut into the bluff. Rock remains on the road. Construction vehicles will need to use this road to access the site. Barge assistance could be used at the Contractor's option to facilitate the work.
- ▶ Staging in the project area is relatively small compared to the rock and excavation volumes involved. The Contractor will likely need to build the launchable toe in the upstream direction and drive on completed portions of the toe. Material delivery and excavation export will need to be carefully sequenced.
- ▶ Sheeting or shoring will be required to maintain open and safe trenches during excavation and launchable riprap placement. Contractor shall be responsible for compliance to OSHA excavation criteria and removal of temporary sheeting or shoring.
- ▶ The proposed work is within the Minnesota River's floodplain, and launchable toe areas are likely to be at least partially inundated during even small and moderate magnitude floods. Inter-Fluve recommends restricting work to periods of low flow during which the bluff toe is not inundated and extensive water control will not be required.
- ▶ Water control should be used to keep launchable riprap trenches free of water during construction.

4.3 ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COSTS

An engineer's opinion of probable construction cost (EOPCC) for the project is provided in Appendix C. Since the onset of the COVID-19 pandemic, construction costs have increased rapidly as a result of material shortages, shipping delays, market inflation, labor shortages, and other factors. Recent conversations with river restoration contractors anecdotally report price escalation of 20-50% between 2020 and 2022. The cost estimate provided is based on unit prices from recent project bids, MnDOT average unit prices, and applicable reference cost data. The actual implemented cost may vary from these estimates as a result of market factors, detailed design development, or other factors.

The cost estimates are prepared to a Class 2 (+20%/-15%) standard per AACE guidelines. We applied a contingency of 25% to account for potential uncertainties associated with bidding and the

construction process, uncertainty or future changes in unit costs, and scope or design changes that might arise during the design process or as a result of permit conditions.

4.4 PERMITTING

Inter-Fluve developed a permit matrix for the project as part of the 2021 design effort that summarizes the anticipated permitting requirements for the project. Young Environmental will be responsible for completing the permit application development and submission for this project. An updated permit matrix based on the 60% design is included in Appendix D.

4.5 NEXT STEPS AND SCHEDULE

This report is being submitted at the 60% design deliverable stage. Upon receiving review comments on this deliverable from LMRWD and Young Environmental, we anticipate providing the 90% complete deliverable within two months. Inter-Fluve and HEI will continue to collaborate on the design of the project. In addition, Inter-Fluve is scheduled to complete a repeat drone aerial imagery collection survey in April of 2023.

5. References

- Call, K.S.B., S. Levine, P. Belmont, P. Larson. 2018. Minnesota River Bathymetry: 2013 - 2016, HydroShare, <https://doi.org/10.4211/hs.6cd3728f69cb4cb39c6f11baac1734ec>. Accessed May 2021 <https://www.hydroshare.org/resource/6cd3728f69cb4cb39c6f11baac1734ec/>
- Dietrich, W.E., and Smith, J.D. 1984. Bed Load Transport in a River Meander. Water Res. Research, Vol. 20 (10), pp. 1355-1380.
- FEMA. 2016. Flood Insurance Study, Hennepin County, Minnesota (All Jurisdictions).
- Inter-Fluve. 2021a. Area 3 Findings and Alternative Review Memorandum. St. Paul, MN.
- Inter-Fluve. 2021b. Addendum #1 to Area 3 Findings and Alternative Review Memorandum. St. Paul, MN.
- Inter-Fluve. 2021c. 2D Hydraulic Modeling Investigation. St. Paul, MN.
- Maynard, S.T., and White, D.M., 1995, "Toe Scour and Bank Protection Using Launchable Stone," USACE Technical Report HL-95-11.
- Maynard, S.T., 1996, "Toe-Scour Estimation in Stabilized Bendways," ASCE Journal of Hydraulic Engineering, Vol. 122, No. 8, pp. 460-464.
- U.S. Army Corps of Engineers (USACE). 2022. HEC-RAS River Analysis System. User's Manual. Hydrologic Engineering Center, Davis, CA.

Appendix A – Previous Inter-Fluve Memoranda

TECHNICAL MEMORANDUM



To: Lower Minnesota River Watershed District
From: Inter-Fluve, Inc.
Date: May 18, 2021 **Project:** Area 3 Lower Minnesota River
Re: Area 3 Findings and Alternative Review Memorandum

The Lower Minnesota River Watershed District (LMRWD) retained Inter-Fluve, Inc. (Inter-Fluve) to assess the eroding bluffs at “Area 3” along the Lower Minnesota River and to conceptualize and evaluate alternative treatments to stabilize the bluff toe. This technical memorandum includes a summary of the project background and project goals; an analysis of existing conditions based on existing data review, onsite investigation, and hydraulic modeling; a summary of findings and project considerations; a review of past recommendations and alternatives considered; proposed alternatives and recommendations; and suggested next steps and schedule. This assessment is in agreement with prior assessments in that the bluff failure is being driven by a combination of factors including channel migration, increased magnitude of flows, lack of vegetative cover, other anthropogenic influences (e.g., stormwater, ponds, development runoff), and soil saturation due to groundwater seeps. The immediate recommended course of action is to complete the bathymetric survey (instead of after 90% design as currently scoped) in order to inform the scope and scale of an appropriate bluff toe stabilization measure. This report includes description of three alternatives that are intended to represent potential recommendations that could result from the findings of the bathymetric survey. It should be noted that the bathymetric survey findings will inform the final recommended alternatives. The alternatives presented in this report are: 1) A large scale rock bluff toe stabilization 2) A localized rock bluff toe and bioengineered bluff toe stabilization and 3) No-action and monitor.

BACKGROUND AND PROJECT GOALS

Area 3 is a site along the left bank of the Lower Minnesota River in Eden Prairie, approximately 19.6 river miles upstream of the Minnesota’s River confluence with the Mississippi River (Figure 1). The site is adjacent to a former roadway that is now used as a walking path. Vertically, the project area is divided into three sections each characterized by a difference in slope (Figure 2). The lowermost section, the bluff toe, has an approximate 4H:1V slope, and is variably inundated by the Minnesota River. The middle portion of the slope is an eroding bluff characterized by steep (approx. 0.5H:1V on average) sandy slopes, void of vegetation. Several groundwater seeps emerge from the face of the bluff throughout its lower half. The upper

portion of the slope (termed upper slope) is characterized by much milder slopes (approx. 4H:1V on average), with grassy vegetation, few trees, and some gullying erosion. The upper limit of the upper slope abuts a residential development with maintained lawns and minimal buffer between the lawns and the slope.



Figure 1: Project location map as provided by LMRWD in addendum No. 1 of the project RFP

The reach of the Minnesota River has seen significant land use changes over the last century. In the early 1900s¹, the adjacent area was largely agricultural. The Allied Waste Landfill was

¹ Note that approximate dates in this paragraph were assessed based on historical aerial imagery as provided in the 2008 SRF report (SRF 2008).

constructed just northwest of the Area 3 slope in the 1970s. In the 1980s, the area north and northeast of Area 3 was subdivided, and residential development began. The area directly above the Area 3 slope was not developed until the late 1990s. Several ponds, assumed to be stormwater treatment ponds, were constructed in the upslope areas above the bluff, as part of this development.

Several past studies and preliminary design efforts have assessed Area 3. Those studies are summarized in the next section. As a result of the previous efforts, Inter-Fluve was retained to develop alternative solutions for treatments along the bluff toe to minimize the effect of fluvial processes on bluff erosion. We understand that other project teams are continuing to evaluate the geotechnical slope stability and issues associated with gullying on the upper slope. It should be noted that Inter-Fluve reviewed the upper slope immediately adjacent to the bluff area and did not identify gullying associated with the bluff feature. It is understood that gullying is associated with overland drainages in the upper slope from the residential properties. These upslope erosion locations have not been evaluated by Inter-Fluve staff.

The primary goal of this project is to limit fluvial influence on the bluff toe and adjacent areas through implementation of a riverbank stabilization project. It is understood that based on previous analyses there are likely additional geotechnical solutions that would be required for bluff and upper slope stabilization that are being reviewed and addressed by others. A secondary goal of the project is to limit input of sediment from Area 3 into the Minnesota River in efforts to address the river's Total Maximum Daily Load (TMDL) for sediment. Protection of a non-functional City stormwater pond located downstream of the eroding bluff was identified as a desire by the City in order to comply with their MS4 permit. It is understood that Inter-Fluve's current scope is to provide alternative approaches to mitigate fluvial bluff toe erosion. This can be achieved through the alternative designs proposed within this memo. However, due to larger scale river process, future bluff failure risk will not be eliminated by stabilizing the bluff toe. Consequently, Inter-Fluve's analysis and recommendations extend beyond solutions at the bluff toe to address longer-term river process impacts at the Area 3 site.



Figure 2: Drone image with schematic lines showing site descriptor terminology used in this report.

EXISTING CONDITIONS SUMMARY

This section summarizes past data collection, assessment, and design efforts; describes the results of our onsite findings through geomorphic assessment and drone survey; and details our existing conditions modeling efforts and findings.

Geomorphic Context

When Glacial Lake Agassiz (the remnants of which include Lake Winnipeg, Lake Manitoba, Lake of the Woods, and Red Lake) overtopped, floods carved the modern Minnesota River valley. The modern Minnesota River meanders within the bounds of the valley carved during the glacial floods. Historically, the land surrounding the Minnesota River was dominated by natural tall-grass prairies and wetlands, but was largely converted to row crop agriculture over the past 150 years. As previously noted, there has also been significant residential development in the last 40 years, especially in the downstream portions of the Minnesota River watershed, near the Twin Cities. The land use change has resulted in increased rainfall runoff which, coupled with increasing magnitude of precipitation due to climate change, increased sediment supply to the river and increased flow in the river. These changes have resulted in significant changes to the Minnesota River system and accelerated downstream sedimentation in Lake Pepin (Tetra Tech 2020). Currently, the dominant source of sediment to the Minnesota River stems from accelerated erosion of river banks and bluffs due to increased discharge (Belmont et

al. 2011). Increased discharge has resulted in morphological change within the Minnesota River. Since 1938, the Minnesota River between Mankato and Saint Paul has widened by 52%, shortened by 7%, and caused aggradation of the floodplain surface (Lenhart et al. 2013). The ultimate result of these morphologic changes is an increase in bankfull shear stress and stream power. The resulting condition inhibits growth of woody riparian vegetation on low lying sand bars, limits the accessibility of the River to its floodplain, and reduces the amount of sediment storage available in the floodplain.

Summary of Past Assessment and Design Work

Several past efforts to assess and develop conceptual level designs to address the bluff erosion at Area 3 have occurred over the last two decades.

In 2008, SRF Consulting Group, Inc. (SRF) completed an erosion stability study for the area that included a historical photo analysis², topographic survey, soil and slope stability analysis, and flood elevation analysis (SRF, 2008). As a result of this analysis, it was determined that several factors were contributing the instability of the bluff including: “low internal soil strength properties; removal of vegetation; frequent river flooding; soil saturation due to flooding and the presence of springs; high velocities along the outside bend of the river during flood stage; and presence of steep slopes.” (SRF, 2008.) In addition, the report found that “more than likely, it is a combination of localized erosive velocities as the river flows around the bend and the permanent soil saturation that occurs near the springs that has accelerated bluff erosion, which would otherwise occur more slowly from flooding saturation/desaturation, low in-situ soil shear strength, steep slopes, and the removal of vegetation.” (SRF, 2008.) This report suggested two alternatives: 1) regrading of the slope of the toe to achieve a 3H:1V slope and stabilizing it with riprap up to the 100-year flood elevation, and 2) implementing a 2H:1V riprap slope at the toe, with a 1H:1V reinforced soil slope above. The report recommended pursuing the second alternative, but only after further investigatory work by a geotechnical engineer, additional survey, hydraulic assessment, and landscape architectural review.

In 2010, Wenck Associates, Inc. (Wenck) in association with Stanley Consultants Inc. (Stanley) completed an assessment report on Area 3 entitled *Minnesota River Bank and Bluff Stabilization* (Wenck, 2010.) This assessment expanded the length of the bank from the SRF assessment, and included additional data collection, hydraulic modeling, and geotechnical testing and analysis. A georeferenced air photo analysis showed bank locations in 1937, 1969, and 2008 (Figure 2). The study also completed a hydrologic analysis and found that Minnesota River flow rates are increasing. The analysis found that a 1993 flood caused significant erosion on the bluff, which was likely “exacerbated by concentrated surface runoff from the bluff and seepage flows that weaken the support at the toe of the slope.” (Wenck, 2010.) The study recommended addressing

² It is our understanding that this analysis did not include georeferencing of the various aerial photographs.

the issue through bank stabilization work and considered three alternatives: 1) a riprap blanket, 2) bendway weirs, and 3) rock vanes (Wenck, 2010). A do nothing alternative was not considered as it was identified that natural progression of the meander bend would result in downstream movement, compromising the City's stormwater pond. Ultimately, the rock vane alternative was recommended in consideration of the lowest anticipated construction cost. Inclinometers were also installed to monitor the bluff slope as part of this effort.

Since 2010, LMRWD, Wenck, Stanley, Braun Intertec, and Barr Engineering have been involved in additional geotechnical monitoring work, which we understand is ongoing and will lead to slope stabilization design recommendations in order to protect the bluff and upper slope, and ultimately the properties at the top of the bluff.

In 2013, a bank toe stabilization effort using rock and bioengineering was implemented around the perimeter of the City stormwater pond to protect the pond. However, a Wenck report indicated that vegetation did not grow due to high water conditions, resulting in failure of the bioengineering techniques (Wenck, 2017.)

In 2016, Wenck installed several bank pins to monitor bank movement and assess the risk to the City stormwater pond. This effort determined that over time "the City stormwater pond will be overrun by the Minnesota River considering the direction of the river meander." This report suggested two approaches "1) armor the bank with a revetment possibly in combination with bend way weirs or 2) establish a vegetated bank that even though the bank erodes the erosion is at an acceptable rate." (Wenck, 2017).

Inter-Fluve agrees with the compounding processes driving bluff failure identified by SRF and Wenck, which include increased soil pore-pressure caused by groundwater seeps and river flooding frequency, lack of vegetation on the bluff face, and erosive hydraulic forces at the bluff toe. The solutions proposed by the previous studies are investigated within this memo.

Site Assessment

Inter-Fluve conducted an onsite geomorphic site assessment on April 2, 2021 in the late afternoon. At the time of the visit, the water surface elevation was at approximately 703.9 feet NAVD88 and the discharge was approximately 10,650 cubic feet per second (cfs) at the USGS gage station 05330000 Minnesota River near Jordan, MN (USGS NWIS Web Interface). The Minnesota River channel in the project reach is currently between 250 and 350 feet wide. Upstream and downstream of the project site, the both channel banks are actively eroding. At Area 3, the left bank (bluff toe) is erosional, and the right bank is depositional. The floodplain below the valley walls is characterized by a floodplain forest, with some development, agricultural land, and several floodplain lakes. Where the City's non-functional stormwater pond is located downstream of the Area 3 bluff, there is a floodplain bench dominated by reed canary grass and willow shrubs. A stormwater outlet empties into an incised ditch that carved

through this floodplain (Figure 3). It appears that this floodplain bench is the former location of the City stormwater pond that has been filled in and is no longer serving any water quality benefit. Based on review of historic air photos and past reports, it is clear that several phases of construction and repair have been done to restore or rebuild the pond. We understand that in 2013 a rock toe and bioengineering stabilization project was implemented to fortify the river bank along the length of the pond, however, due to high water, vegetation never established. Inter-Fluve observed the failed treatment in the field and also identified a structure that appeared to be a constructed log structure on the bank adjacent to the pond location (Figure 4).



Figure 3: Photo taken of incised channel carved through former stormwater pond.



Figure 4: Drone image showing exposed log crib structure and failed bank stabilization.

The eroding section of the Area 3 bluff is estimated to be approximately 700 feet long and 60 feet high, with evidence of erosion concentrated in three scallops spaced along the bluff top. The shape of these scallops coincides with the location of groundwater seeps along the bottom half of the eroded bluff (Figure 5). The bluff erosion has impacted approximately 500 feet of the former road/trail surface. The bluff is composed of exposed fine sand with sparse gravels concentrated in the upper ~10 feet of the bluff face. Alluvial material, likely sourced from the eroding bluff with minor flood deposits, is present at the base of the eroding bluff. Only minimal vegetation was observed on the bluff face. Several cliff swallow nests were observed in the upper portion of the eroded bluff. Upslope of the eroding bluff, the slope is largely prairie grasses interspersed with cedar trees.

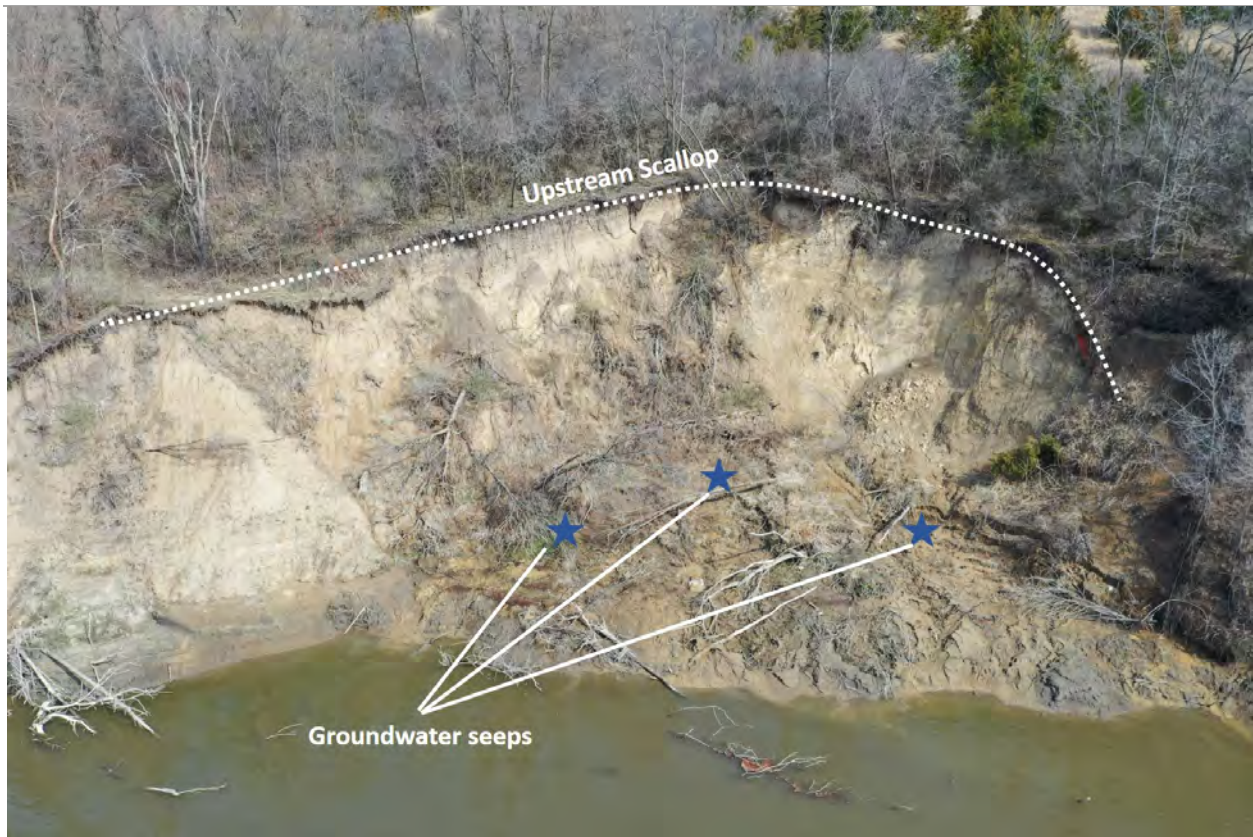


Figure 5: Drone image of bluff segment showing scallop shape and approximate location of groundwater seeps.

Drone Survey

A drone survey was conducted on April 6th, 2021. The project site is located in class D airspace and the drone flight was authorized through the Federal Aviation Administration Low Altitude Authorization and Notification Capability (FAA LAANC) system, and was limited to below 50 feet above ground level (AGL). The survey was conducted in compliance with FAA regulations. Both top-down and oblique photos were collected. Photos were processed using Pix4D software to create a seamless surface and aerial photo mosaic.

A topographic surface was created using photogrammetry to determine the 3D location of points identified in overlapping images. Spurious points, typically representing vegetation, were removed and the remaining points used to create the resultant bare earth surface. Because this technique cannot determine the ground surface through vegetation, the photogrammetry surface was vertically adjusted and matched with the most recent lidar to create a seamless surface of the project site. At the time of the survey the Minnesota River discharge was approximately 8,320 cfs at the USGS gage station 05330000 Minnesota River near Jordan, MN (USGS NWIS Web Interface).

1-D Modeling Summary

A 1-D HEC-RAS model was provided by the LMRWD to use as a basis for hydraulic analysis. The model was created in 2004 with input from the USGS and USACE as part of the “Flood-Plain Areas of the Lower Minnesota River” report which was used in the development of the 2016 FEMA FIS Study for Hennepin County. The model was updated by adding six sections where bathymetry data was collected in 2020, updating bluff topography with drone topography collected in 2021, and updating floodplain topography with LiDAR collected in 2009. Existing section 52 was adjusted to cut through a bathymetric cross-section and was also updated with bathymetry, drone topo, and LiDAR.

The model results were used to investigate hydraulic conditions to assess the current bluff toe erosion and inform potential bluff toe stabilization measures. The hydraulic properties of the cross-sections are reported below in Table 1, the average channel velocity and shear stresses calculated in HEC-RAS were multiplied to estimate maximum values using a method by Sclafani (2011). The maximum shear stress is a localized value that theoretically occurs near the apex of the bend, on the outer bank, and at the maximum channel depth (thalweg). This analysis indicates that the largest material the channel has the ability to transport along the thalweg is fine to coarse gravels at a variety of flows from low-flows to flood-flows. At Area 3, the river almost always has the competency to transport the sand along the outer bank (bluff toe) of the river which comprises the bluff toe. However, the rate at which the river is able to transport this material is not easily estimated with hydraulic models. A direct and accurate way to estimate the rate of sediment transport and the rate of channel migration is by collecting annual bathymetric and topographic surveys of the area of interest.

The maximum scour depth was calculated to estimate potential rock volume required for bluff toe stabilization using the Maynard (1996) equation. The Maynard equation is an empirical equation that applies relationships of radius of curvature, top width, and average channel depth to estimate scour potential. The max scour depth was calculated to be 6.6 ft deeper than the current maximum channel depth, using a recommended factor of safety of 1.19. Scour analysis calculations will be refined with new bathymetric survey data. A launchable rock toe is anticipated to be the best way to protect against this potential scour.

Table 1: Hydraulic Analysis Results RAS Section 52

Flow Event	Flow (cfs)	Max Flow Depth (ft)	Max Bend Velocity (ft/s)	Max Bend Shear (lb/sq-ft)	Sediment Transported by Max Shear
500-yr	148,000	57.2	3.2	0.32	Coarse Gravel (16mm)
100-yr	103,000	51.9	2.9	0.29	Coarse Gravel (16mm)
100-yr Fldwy	103,000	52.1	2.9	0.26	Coarse Gravel (16mm)
50-yr	85,300	49.5	2.7	0.26	Coarse Gravel (16mm)
10-yr	48,500	42.8	2.4	0.20	Medium to Coarse Gravel (8-16mm)
2-yr	17,000	37.6	1.4	0.06	Fine Gravel (4mm)
15,000cfs	15,000	32.2	2.1	0.17	Medium to Coarse Gravel (8-16mm)
10,000cfs	10,000	28.8	1.8	0.14	Medium Gravel (8mm)
8,000cfs	8,000	27.0	1.7	0.11	Medium Gravel (8mm)

SUMMARY OF FINDINGS AND DISCUSSION

Based on the existing conditions, Inter-Fluve has made several observations that describe erosion processes at Area 3. We agree with past reports that there are local drivers (soil properties, groundwater seeps, fluvial processes, vegetation management, upslope land use) and regional (increased flows, increased flood frequency) and compounding factors that are leading to the bluff erosion at Area 3. In order to assess what potential approach might provide a long-term, cost-effective solution for the site, many factors must be considered. Land use changes and climate change are causing loss of native vegetation, increased precipitation and landscape irrigation contributing to soil saturation and groundwater seeps, widening of the Minnesota River, and increased flows, all of which are contributing to the bluff erosion at this site. We believe that increased soil saturation has resulted in weakened soil structure, increased soil pore water pressure and increased groundwater seepage at the bluff face. Flood flows then erode this more easily entrained material at the bluff toe resulting in increased potential for mass wasting.

The following list summarizes Inter-Fluve's observations that corroborate the above statements.

- A review of recent aerial photographs from GoogleEarth³ reveals that the two meander bends upstream of Area 3 are shifting down-valley, which is an expected geomorphic trend and aligns with aerial photo analysis. This trend suggests that the trajectory of the Area 3 meander bend is also down valley. However, the presence and location of the stormwater pond stabilization work⁴ is delaying down valley migration, resulting in persistent northward erosion at Area 3. This trend is illustrated below on Figure 6.

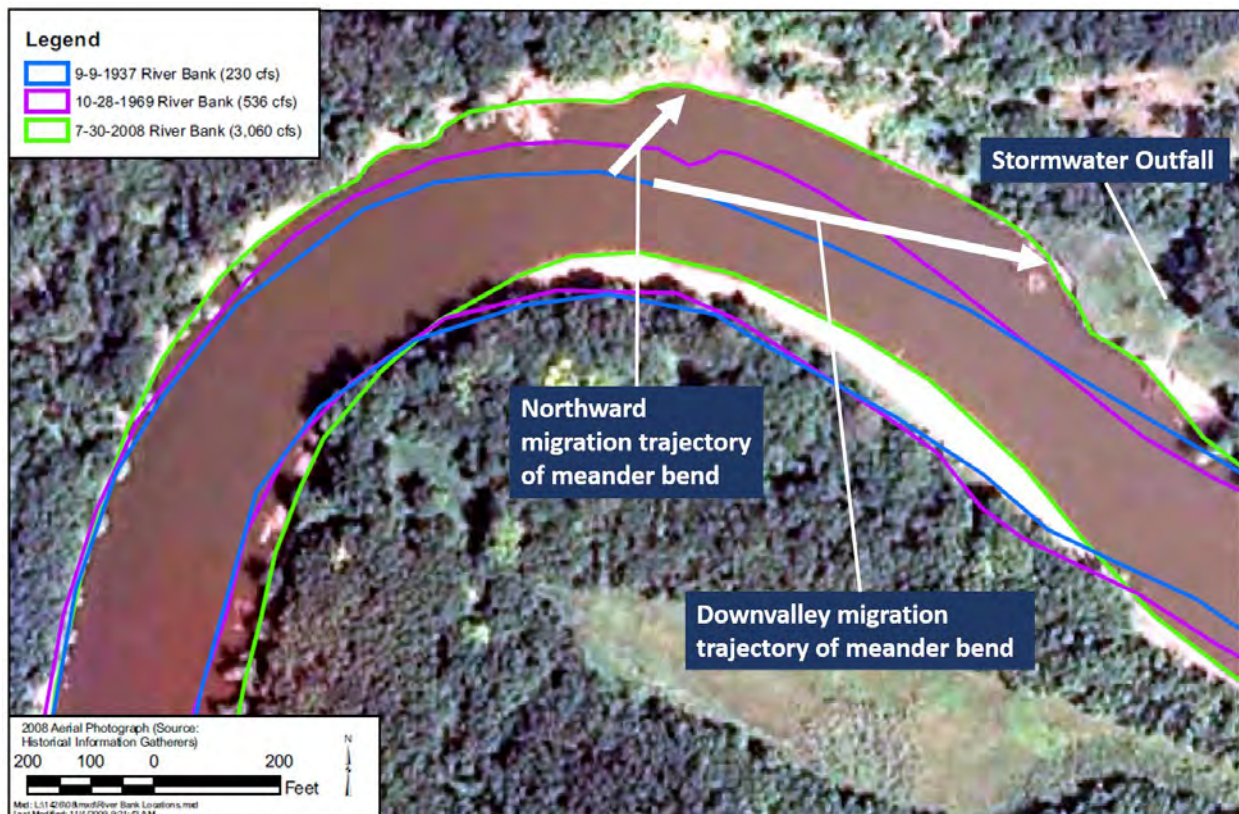


Figure 6: Historical Aerial photograph analysis showing bank lines from 1937, 1969, and 2008 (modified from Wenck, 2010)

- Inter-Fluve's onsite observations of bilateral bank erosion and historical air photo analysis indicate that the river segment upstream of the Area 3 bluff is widening. In the Area 3 segment, the inside bend is experiencing deposition, and the outside bend is eroding (or moving north in the direction of the bluff.) The aerial photo analysis (see Figure 5) shows the historic trends of meander bend migration for the project area. The

³ Note that these photos are not precisely georeferenced, but the intent of this photo review was to confirm the general trajectory of the river system. A landmark was referenced in both compared images to check for reasonable accuracy of the image locations.

⁴ Based on the historic aerial photographs, the City stormwater pond appears to be inundated and filled or breached, then restored several times throughout the photo series.

bank locations of the upstream half of the outside of the meander bend experienced more gradual movement, whereas the downstream half is experienced more rapid movement in a shape that is not parallel to the previous river bank location. This suggests that while the meander bend is moving toward the outside bend, there may be other factors influencing the bluff movement (e.g., increased soil saturation from river flooding frequency and groundwater seeps and irrigation/anthropogenic activity, etc.) We can roughly estimate bluff retreat at the top of the middle bluff, but migration rates at the bluff toe can't be computed because each photo occurs at a different river stage and flow rate- and we lack repeated bathymetric data. Repeat bathymetric and topographic survey would provide the data necessary to determine migration rates.

- The shape of the scallops in the upper bluff aligns with the locations of the groundwater seeps expressed in the lower bluff and near the midpoint of the bluff.⁵ This suggests that the seeps may be playing a role in the bluff erosion.
- Based on the historical air photos included in Appendix A of SRF's 2008 report, bluff scour first appears in the 1979 photo which coincides with the appearance of the upslope landfill and associated pond. Another significant change can be observed in the 1991 photo, which shows the City stormwater pond in the floodplain downstream of the Area 3 slope. In that photo, it appears that the photo was taken during a comparatively low water condition, yet the toe of the Area 3 bluff is inundated. Within the set, the 1997 photo is the first photo that shows loss of a segment of the former farm road/walking trail. The 2000 photo shows the development of additional stormwater ponds associated with the upslope development. This suggests that anthropogenic activity (City stormwater pond construction, landscape irrigation, upslope pond creation, other development, etc.) is likely playing a role in the bluff erosion.
- The results of the 2020 bathymetric data suggest that the subsurface channel bank slope in front of the Area 3 bluff is fairly flat which suggests that the mass wasting is pushing material out at the toe, and that the river (at least at the time of survey) was not evacuating that material downstream. Bluff erosion is often cyclical. Initial bluff erosion was likely driven primarily by erosion at the toe, but subsequent failures have deposited significant material at the bluff toe, and at the present time, increased pore pressure due to flooding and groundwater seepage, and lack of vegetation contribute to continued erosion of the bluff.

⁵ The bluff extends from the bottom of the river to the top of the feature; therefore "toe" of the bluff is 15 feet under water and the "midpoint" is just above the existing water surface elevation.

The anticipated trajectory of this meander bend is to continue to erode both north and downstream. Because the City stormwater pond area and associated rock toe limit the River's ability to migrate downstream, it may be advantageous to consider solutions that remove this restriction to river bank movement, especially considering the fact that the stormwater treatment benefit is not present and long-term viability of the pond is unlikely. Our observations, along with those of previous studies suggest that increased pore pressure from groundwater seeps may have a significant impact on the bluff erosion which would require a geotechnical solution to address.

We suggest that additional bathymetric survey be completed now to accurately assess subsurface slopes and processes. Detailed bathymetry is needed to verify erosion patterns at the toe and to properly size stabilization measures. The following sections review past recommendations and our proposed next steps and alternatives given our findings.

ALTERNATIVES CONSIDERED

Considerations taken into account while assessing feasible alternatives include scale and capacity to address the hydraulic forces at the site, scour depth, longevity (both in the face of climate change and river trajectory), potential cost, and perceived permitting feasibility.

The list below provides review of past recommendations and potential alternatives based on the considerations listed above.

1. SRF Alt. 1--Regrading and rock toe at 3H:1V up to 100-year elevation: A rock toe is likely a viable solution for bluff toe stabilization. The slope, scale, and lateral and vertical extents need to be designed to consider long term impacts. If toe stabilization is determined to be warranted based on bathymetric findings and stakeholder preference, a preliminary concept layout for a rock toe has been developed and is described in the following section. The final design, scale, and extent of such a treatment will be a function of the findings of the bathymetric survey. The potential cost of this alternative will be a function of design longevity, and upon further design refinement we will provide analysis to inform the LMRWD in making a decision on the balance between these factors.
2. SRF Alt. 2--2H:1V riprap slope at the toe, and 1H:1V reinforced soil slope above: The benefit of a reinforced soil slope, is that it can be implemented at steep slopes. Based on our understanding of the drivers and project goals, stabilization at a steep slope would not be necessary or warranted to stabilize the toe of the bluff. Depending on what treatments are proposed upslope and how the seeps are managed, a reinforced soil slope section may be warranted from a geotechnical slope stability perspective, but not from a toe stabilization perspective.
3. Wenck Alt. 1--Riprap blanket: A riprap blanket is a similar treatment to a rock toe and is likely a viable solution for bluff toe stabilization for the reasons listed in Item 1.

4. Wenck Alt. 2--Bendway weirs: Based on the scale of the system and the depth of the pool at Area 3, bendway weirs would likely not be a viable solution. Due to the scale and orientation of the site, the weirs would likely be difficult or infeasible to construct, would encroach on the shipping channel potentially posing permitting challenges, and may create more instability than currently exists upstream and downstream of the treatment area. The cost associated with this alternative was not considered because of the listed concerns.
5. Wenck Alt. 3--Rock vanes: Rock vanes are very similar to bendway weirs and pose the same concerns as listed in Item 4.
6. Large Wood Crib or Large Wood Log Jam: Due to the depth of the channel and the site geometry, the length of log piles necessary to support a large wood structure in this location would not be feasible. It is likely that 40-to-50-foot-long long piles would be needed for this application, which cannot be sourced locally, and reaches beyond the feasible application of such a treatment. Depending on the selected alternative or set of alternatives, it is possible that some large wood rootwads or logs could be added to the bank to provide habitat. It is preferable to use large wood in rivers with natural analogs. Because the river width is many times wider than the length of a large wood piece, log jams in the Minnesota River tend to be marginal and localized, and do not extend down to the channel thalweg. The costs, longevity, and permitting of this treatment were not considered because it wasn't feasible from a constructability standpoint.
7. Vegetative Bioengineering Solution: It is possible that a vegetative solution could be implemented at the toe of slope, depending on the findings of the bathymetric survey. It would likely need to be paired with some stone treatment, the scale of which also depends on the findings of the bathymetric survey. We understand that the 2013 treatment adjacent to the City stormwater pond failed due to lack of vegetation establishment during high water conditions. If such a solution is pursued, vegetative treatments would likely be recommended at a higher elevation along the toe of the bluff than the 2013 installation.

PROPOSED ALTERNATIVES AND RECOMMENDATIONS

Below are two recommendations that should be pursued in conjunction with the design of a bluff toe stabilization. Additionally, the increased pore pressure caused by the frequency of river flooding and groundwater seeps will likely result in continued mass wasting of the bluff into the river.

1. Pursue decommissioning of the City Stormwater Pond. We understand that that the stormwater pond is a part of the City's current MS4 compliance; however, the pond has had continued functional issues, and is currently not retaining any water or providing any water quality benefits. The river is anticipated to move in the direction of the stormwater pond, so stormwater treatment in this location is not a viable long-term solution. Removing the bank and structures in this location and allowing the river

meander bend to move on its natural trajectory is seen as one of the highest priorities for addressing the long-term bluff erosion at Area 3. Our observations indicate that the pond location is inhibiting downstream meander bend migration which is causing increased erosive forces along the bluff toe. Treatment here should include removal of bank armoring and legacy stormwater pond infrastructure which would allow for the natural movement of the river bend downstream. Based on our analysis, the pond removal is critical to the long-term stability of the bluff and is strongly recommended.

- a. Option - Consider removing deposited material from the inside bend opposite Area 3. This should only be implemented in conjunction with decommissioning of the City stormwater pond, as material is anticipated to continue to deposit on that point bar without removal of the pond. Removal of this material may help accelerate the natural downstream movement of the meander bend, and thus relieve pressure from Area 3. Additionally, there is a stand of trees on the upstream end of the inside bend that appears to be holding the bend in place on the upstream side. Removal of this stand of trees may also help accelerate the natural progression of the river meander bend in a downstream direction.
2. Continue geotechnical investigations on the upper slope and include assessment and design for addressing groundwater seeps. Investigate how the stormwater ponds and landscape irrigation at the top of the slope may be impacting the seeps (e.g., Are the stormwater ponds lined or have they sealed? Are they functioning as designed?) Design and implement a measure to express seeps at the bottom of the bluff to prevent continued soil wasting from seep erosion allowing vegetation to establish and stabilize the bluff toe.

Recommended Next Step: Conduct bathymetric survey

In order to better understand the shape of the subsurface bluff toe slope, the recent slope failure driver, and hydraulic transport mechanisms at Area 3, we recommend conducting the bathymetric survey earlier in the proposed schedule. This will allow us to better determine the extent of the material sloughing off the bluff, and whether it appears to be mobilizing and evacuating downstream, or not. This will give insight to whether a toe stabilization should be pursued in conjunction with the other recommendations, and, if toe stabilization is warranted, what the extent, scale, and scope of the toe treatment should be.

The data collected from the upcoming bathymetric survey will be used to refine the alternative designs, as well as provide the information necessary to select a preferred alternative. Currently the bathymetry is limited to widely spaced cross-sections which necessitates interpolation of the surface between the sections. Without an accurate understanding of slopes and channel depths, most elements of design would be based on assumptions with a large amount of uncertainty. Feasible alternative approaches to stabilize the toe may range from no action and monitoring (assuming the City stormwater pond is decommissioned and the seeps are addressed) to large scale toe stabilization with a launchable rock toe. An intermediate recommendation may include a localized toe treatment with rock and bioengineering. For planning purposes three potential conceptual alternatives with planimetric layouts have been developed for comparison. These include: 1) Large scale rock toe stabilization, 2) localized rock and bioengineering toe

stabilization, 3) no action and monitoring. It should be noted that these are conceptual layouts only and it is anticipated that the results of the bathymetric survey will provide insight into the need for and feasibility of each alternative addressing the bluff erosion at site.

Conceptual Alternative 1: Large Scale Rock Toe Stabilization

Conceptual Alternative 1 shown in Figure 1, Appendix 1 proposes a large-scale rock toe stabilization along the failing bluff toe. The rock toe would be designed to mitigate fluvial bluff toe erosion at high flow events, and launch into the channel to armor the bank in the event of further channel scour. Based on moment stability analysis (Julien, 2010) MNDOT Class II riprap was determined to be a conservative riprap size for this design. The downstream extension of the treatment is proposed to mitigate the risk of future bluff erosion due to channel migration through this reach. It is recommended that this alternative is constructed along with the decommissioning of the city stormwater pond. A budgetary opinion of construction cost is included in Table 2. This opinion of cost is deemed an Association for the Advancement of Cost Engineering (AACE) class 4 cost estimate based on the current phase of design.

Permitting requirements for Conceptual Alternative 1 and Concept Alternative 2 will be similar; however, the larger footprint associated with the construction of Alternative 1 may trigger more extensive wetland mitigation requirements. It is likely that a wetland delineation may be required for permitting this project.

Table 2: Conceptual Alternative 1 Budgetary Opinion of Construction Cost

Minnesota River Area 3 Conceptual Alternative 1 Budgetary Opinion of Construction Cost April 2021					
Item #	Item	Unit	Quantity	Unit Cost	Sub total
1	MOBILIZATION AND DEMOBILIZATION	LUMP	1	\$ 107,000	\$ 107,000
2	SITE ACCESS AND STAGING	LUMP	1	\$ 51,000	\$ 51,000
3	EROSION AND SEDIMENT CONTROL	LUMP	1	\$ 30,000	\$ 30,000
4	CLEARING	ACRE	2.0	\$ 10,000	\$ 20,000
5	RIPRAP CLASS II	CY	8,000	\$ 90	\$ 720,000
6	GRANULAR FILTER	CY	1,300	\$ 60	\$ 78,000
7	EARTHWORK CUT	CY	1,000	\$ 15	\$ 15,000
8	HAUL AND OFFSITE DISPOSAL OF CLEAN FILL	CY	1,000	\$ 22	\$ 22,000
9	SURFACE FABRIC	SY	6,025	\$ 12	\$ 72,295
10	REVEGETATION	ACRE	1	\$ 50,000	\$ 50,000
11	AS-BUILT SURVEY	LUMP	1	\$ 10,000	\$ 10,000

Subtotal		\$ 1,175,295
Contingency	30%	\$ 352,588
TOTAL		\$ 1,527,883

Conceptual Alternative 2: Localized Rock and Bioengineering Toe Stabilization

Conceptual Alternative 2 shown in Figure 2, Appendix 1 proposes a localized rock and bioengineering toe stabilization along the failing bluff toe. The rock at the toe of the bluff would be designed to mitigate fluvial bluff toe erosion at high flow events. The bioengineered treatment would be upslope of the rock toe and provide soil stability and a reduction in erosive fluvial forces at the toe of the bluff through vegetation establishment. Based on moment stability analysis (Julien, 2010) MNDOT Class II riprap was determined to be a conservative riprap size for this design. It is recommended that this alternative is constructed along with the decommissioning of the city stormwater pond. A budgetary opinion of construction cost is included in Table 4. This opinion of cost is deemed a AACE class 4 cost estimate based on the current phase of design.

Permitting requirements for Conceptual Alternative 1 and Concept Alternative 2 will be similar; however, the smaller footprint associated with the construction of Alternative 2 may require less extensive wetland mitigation requirements.

Table 3: Conceptual Alternative 2 Budgetary Opinion of Construction Cost

Minnesota River Area 3 Conceptual Alternative 2 Budgetary Opinion of Construction Cost April 2021					
Item #	Item	Unit	Quantity	Unit Cost	Sub total
1	MOBILIZATION AND DEMOBILIZATION	LUMP	1	\$ 55,000	\$ 55,000
2	SITE ACCESS AND STAGING	LUMP	1	\$ 28,000	\$ 28,000
3	EROSION AND SEDIMENT CONTROL	LUMP	1	\$ 16,000	\$ 16,000
4	CLEARING	ACRE	1	\$ 10,000	\$ 10,000
5	RIPRAP CLASS II	CY	3,400	\$ 90	\$ 306,000
6	GRANULAR FILTER	CY	570	\$ 60	\$ 34,200
7	EARTHWORK CUT	CY	500	\$ 15	\$ 7,500
8	HAUL AND OFFSITE DISPOSAL OF CLEAN FILL	CY	500	\$ 22	\$ 11,000
9	FES LIFTS	FACE FEET	2,100	\$ 40	\$ 84,000
10	SURFACE FABRIC	SY	3,500	\$ 12	\$ 42,000
11	REVEGETATION	ACRE	0.6	\$ 50,000	\$ 30,000
12	AS-BUILT SURVEY	LUMP	1	\$ 10,000	\$ 10,000
Subtotal				\$	633,700
Contingency 30%				\$	190,110
TOTAL				\$	823,810

Conceptual Alternative 3: No Action and Monitoring

With the removal of the city stormwater pond, it is possible that the direction of migration of the meander bend may deviate from the current northward progression and begin migrating down valley to the east. In this scenario, the fluvial component of the bluff toe failure may be dampened to a degree which requires no action at the bluff toe. In order to address the ongoing success or failure of this option, annual monitoring of the project area is proposed. This would include drone collected topography of the bluff face, RTK GPS topographic survey of both left

and right banks and floodplains, and detailed bathymetric survey. This data collection should occur annually during low flow, leaf off conditions in the fall before snow accumulation and ice buildup. The tenure of monitoring would depend on findings as it relates to bank movements, and adjacent projects (e.g., stormwater pond removal, upper bluff stabilization work, etc.)

SUGGESTED SCHEDULE

Given the findings and recommendations presented within this memorandum, we suggest the following amended project schedule for this project to allow for collection of bathymetric survey data sooner than originally anticipated.

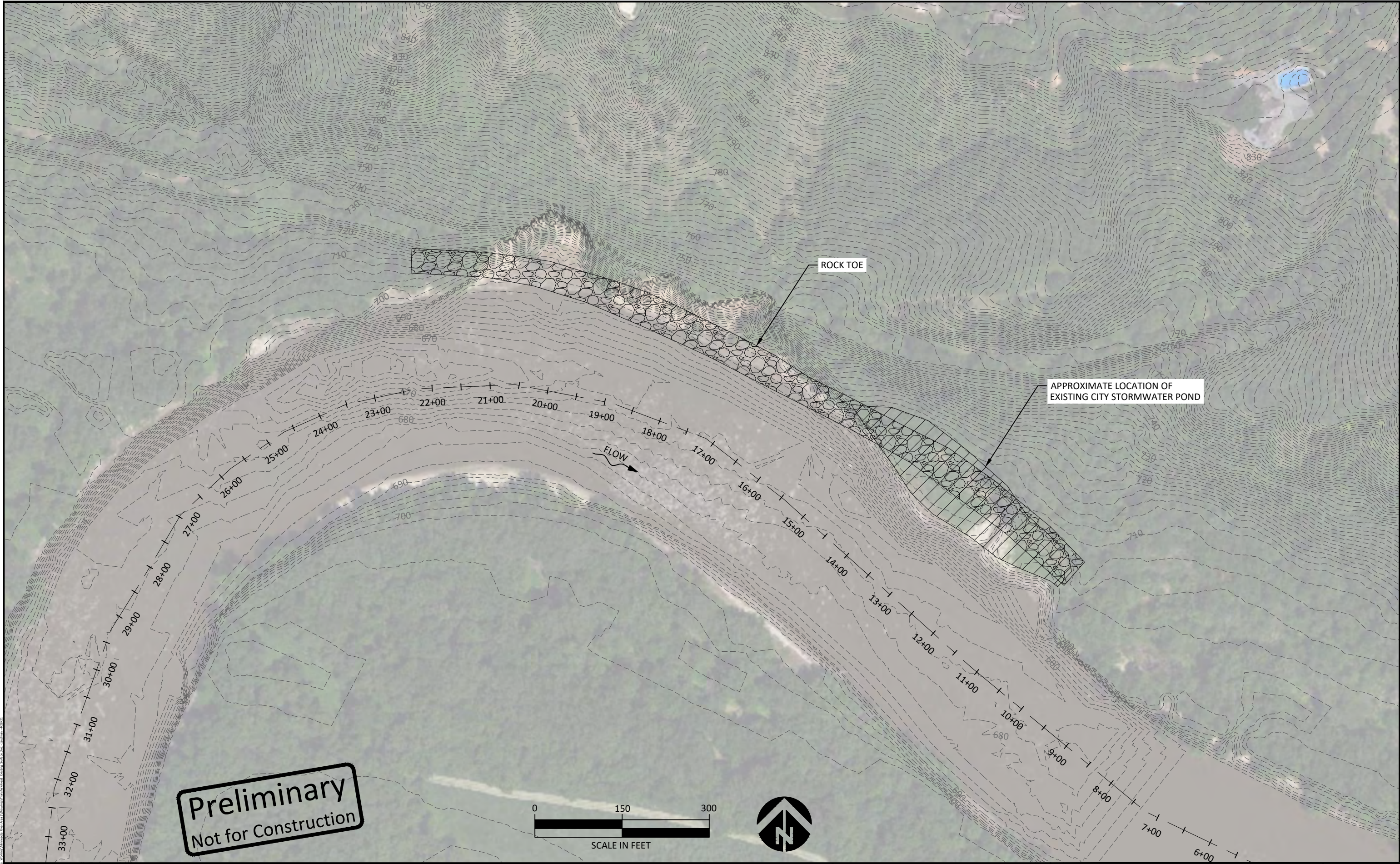
Task	Date/Due by Date
Alternatives Review Meeting	May 6
Bathymetric Survey	Week of May 17
Meeting to Discuss Survey Results	Week of May 24
Preliminary 60% Design*	July 16
Final 90% Design*	August 27
100% Design Tasks*	Scheduled upon notification of construction funding

*If warranted based on selected alternative/approach

REFERENCES

- Belmont P., K.B. Gran, S.P. Schottler, P.R. Wilcock, S.S. Day, C. Jennings, J.W. Lauer, E. Viparelli, J.K. Willenbring, D. Engstrom, and G. Parker. 2011. Large shift in source of fine sediment in the Upper Mississippi River. *Environmental Science and Technology* 45: 8804-8810.
- FEMA. 2016. Flood Insurance Study, Hennepin County, Minnesota (All Jurisdictions).
- Julien, P.Y. 2010. *Erosion and Sedimentation Second Edition*. Cambridge University Press.
- Lenhart, C.F., M.L. Titov, J.S. Ulrich, J.L. Nieber, and B.J. Suppes. 2013. The Role of Hydrologic Alteration and Riparian Vegetation Dynamics in Channel Evolution along the Lower Minnesota River. *Transactions of the ASABE* 56 (2): 549–61.
- Maynard, S.T. 1996. Toe-Scour Estimation in Stabilized Bendways. *Journal of Hydraulic Engineering*. Volume 122: Issue 8. August, 1996.
- Sclafani, P. 2011. Methodology for predicting maximum velocity and shear stress in a sinuous channel with bendway weirs using 1-D HEC-RAS model results. Colorado State University.
- SRF Consulting Group, Inc. 2008. Erosion Stabilization Study Study Area 3 Final Report. Prepared for the City of Eden Prairie.
- Tetra Tech. 2020. Minnesota River and Greater Blue Earth River Basin Total Suspended Solids Total Maximum Daily Load Study.
- USACE and USGS. 2004. Flood-plain Area of the Lower Minnesota River.
- Wenck Associates, Inc. 2010. Minnesota River Bank and Bluff Stabilization Eden Prairie, Minnesota. Prepared for The Lower Minnesota River Watershed District.
- Wenck Associates, Inc. 2017. 2016 Minnesota River Erosion Monitoring. Prepared for the City of Eden Prairie.
- Wilcock, P. 2009. Identifying Sediment Sources in the Minnesota River. Report to the Minnesota Pollution Control Agency, June 30, 2009.
- Young Environmental Consulting Group, LLC. 2020. Eden Prairie Area 3 and the Minnesota River—Meeting summary and recommendations. Submitted to Lower Minnesota River Watershed District.
- Young Environmental Consulting Group, LLC. 2020. Area 3 Site Visit Meeting Summary. Submitted to Lower Minnesota River Watershed District.
- Young Environmental Consulting Group, LLC. 2020. Area 3 Slope Stability Project Update. Submitted to Lower Minnesota River Watershed District.

APPENDIX 1 – CONCEPTUAL ALTERNATIVE FIGURES



NO.	BY	DATE	REVISION DESCRIPTION

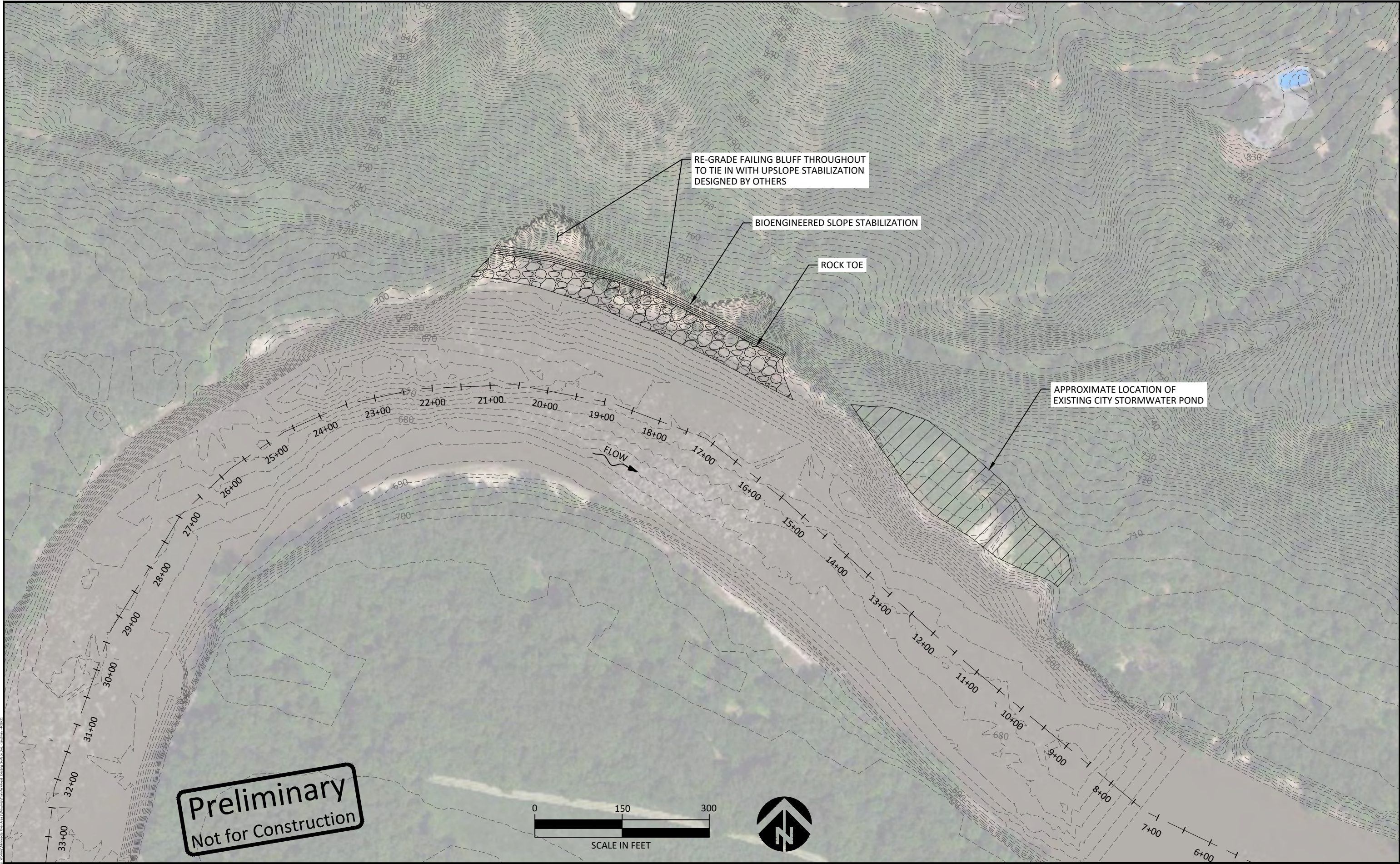
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DRAWN	DESIGNED	CHECKED
---	4/28/2021	---
APPROVED	DATE	PROJECT

LOWER MINNESOTA RIVER WATERSHED DISTRICT
MINNESOTA RIVER AREA 3
CONCEPTUAL DESIGN

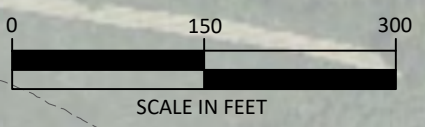


1539 Grand Avenue, 2nd Floor
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CONCEPT ALTERNATIVE 1



Preliminary
Not for Construction



NO.	BY	DATE	REVISION DESCRIPTION

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DRAWN	DESIGNED	CHECKED
---	4/28/2021	---
APPROVED	DATE	PROJECT

LOWER MINNESOTA RIVER WATERSHED DISTRICT
MINNESOTA RIVER AREA 3
CONCEPTUAL DESIGN



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CONCEPT ALTERNATIVE 2

APPENDIX 2 – SELECT DRONE IMAGES

















ADDENDUM #1 to the TECHNICAL MEMORANDUM



To: Lower Minnesota River Watershed District
From: Inter-Fluve, Inc.
Date: June 3, 2021 **Project:** Area 3 Lower Minnesota River
Re: Area 3 Findings and Alternative Review Memorandum

This document serves as an addendum to the Technical Memorandum entitled *Area 3 Findings and Alternative Review Memorandum* dated May 18, 2021, and documents the findings from the bathymetric survey efforts and provides description of Inter-Fluve's alternatives evaluation based on the findings.

SURVEY

Inter-Fluve conducted an onsite bathymetric and topographic survey onsite on May 19 and May 21, 2021 using a network linked RTK survey for land and shallow water survey points, and a Hydrone equipped with a Seafloor System single beam sonar data to survey areas with greater than 3-foot water depths. At the time of the visits on the 19th and 21st, the water surface elevation was at approximately 692.00 feet NAVD88 and 693.10 feet NAVD88, respectively at the project site as recorded per the survey. Discharge was approximately 3,900 cubic feet per second (cfs) and 5,000 cfs, respectively, at the USGS gage station 05330000 Minnesota River near Jordan, MN (USGS NWIS Web Interface). The survey collected bathymetric data for the length of the project site and extended approximately 500 feet upstream and downstream. Topographic data was collected on both banks, the bluff, and the location of the former stormwater pond. This data was merged with existing LiDAR data to create a seamless surface of the project site.

SUMMARY OF FINDINGS AND DISCUSSION

The bathymetric survey showed that the below water slopes immediately in front of the eroding bluff at Area 3 were relatively mild, as was exhibited in the 2020 bathymetric cross section. Relatively deep pools were present both upstream and downstream of the eroding bluff, as would typically be expected for an outside meander bend. Based on these findings, we hypothesize the following geomorphic processes occurred to get to the current condition.

1. The river migrated and widened, which began to entrain material at the toe of the valley side slope (what is now the eroding bluff face), while the groundwater seeps carried out fines and created weak, saturated points in the bare soils of the exposed bluff face. The combination of fluvial toe erosion and seepage along the exposed bluff face are common processes that drive soil loss at many river bluffs.
2. As a result of the entrainment of material at the toe, the presence of groundwater seeps, and, potentially, high water events that further saturate and weaken the exposed bluff face, a mass wasting event or a series of mass wasting events resulted in a large volume of material sloughing from the exposed bluff face and depositing on the toe, creating the bare, sandy bluff and the slump deposited at the toe. Overland flow and groundwater seepage cause the continued erosion of the bluff face.

It should be noted that the rate of soil loss from the noted erosion processes is unknown. Material from the valley bluff is still present on the channel bottom today, and appears to have been present in 2015, based on bathymetric data from 2015 (Call et al. 2018). Based on river hydraulics, the river has the capacity to transport sand, so we presume the river will eventually transport the deposited material downstream. The rate of sediment transport and the rate of additional sediment loading from the bluff are variable and unknown. The slump at the bluff toe is likely a product of the continual input from groundwater seeps and erosion of the bare bluff, and from a series of cyclical larger failure events (mass wasting events). It is very likely that the scour holes on either side of the slump are remnants from what was a contiguous pool before the mass failure event(s).

The slump in front of the existing bluff face is providing temporary toe protection from fluvial erosion, and is thus temporarily reducing the rate of bluff retreat. The slump material will eventually migrate downstream, but the timing of this process is impossible to predict. It is possible that additional mass wasting events will occur before the river is able to transport the slump deposit away. It is also possible that the river could migrate downstream along its natural trajectory, and move away from the Area 3 bluff such that future toe entrainment and erosion might not impact the Area 3 location. Alternatively, a series of large flood events could transport the slump material downstream and start eroding the exposed bluff face toe on a shorter timescale.

PROPOSED ALTERNATIVES AND RECOMMENDATIONS

Based on these findings, Inter-Fluve proposes two potential design alternatives: 1) a rock-toe stabilization, and 2) monitoring. We believe either option would benefit from the removal of the former stormwater pond to allow the river to naturally migrate away from the project area, and investigation of geotechnical solutions to manage the seeps on the bluff, per the recommendations from the memorandum dated May 18, 2021. Alternatives 1 and 2 are described below.

Conceptual Alternative 1: Launchable Rock Toe Stabilization

Conceptual Alternative 1, shown in Figures 1-3 Appendix 1, proposes a large-scale launchable rock toe stabilization along the failing bluff toe. The rock toe would be designed to mitigate fluvial bluff toe erosion at high flow events, and drop into the channel toe to armor the bank in the event of further channel scour. Based on moment stability analysis (Julien, 2010) MNDOT Class II riprap was determined to be a conservative rock size for this design. The amount of rock needed and the upstream and downstream extents of the treatment will depend on acceptable risk tolerance and design criteria which would be defined in future design phases. We have included drawings and cost estimates for two potential rock volumes, sized to protect against a range of scour conditions (the 2-year scour depth and 100-year scour depth, respectively.) These are shown in Figures 2 and 3 in Appendix 1. Alternative 1 would include mid- and low-slope plantings above the top elevation of riprap to encourage revegetation and stabilization of the bluff face. This would likely also support capture of the sediments escaping from the bluff from the seeps; however, it would not prevent or have a significant impact on potential future mass wasting events.

If this alternative is selected, additional scour analyses would be completed, and observed Minnesota River scour conditions would be reviewed to confirm the recommended flood design event, recommended rock volume, and extents of treatment. It should be noted that this alternative would not prevent future mass wasting events or other processes at play onsite, other than northern migration of the river channel (see discussion below on revegetation.)

Budgetary opinions of construction cost for the rock volume ranges are provided in Tables 1 and 2. These opinions of probable construction cost are deemed Association for the Advancement of Cost Engineering (AACE) class 4 cost estimates based on the current phase of design.

Table 1: Conceptual Alternative 1 Budgetary Opinion of Probable Construction Cost for Q2 Scour Depth Rock Volume

Minnesota River Area 3 Conceptual Alternative 1 Budgetary Opinion of Probable Construction Cost Q2 Scour Depth Rock Volume May 2021					
Item #	Item	Unit	Quantity	Unit Cost	Sub total
1	MOBILIZATION AND DEMOBILIZATION	LUMP	1	\$109,000	\$109,000
2	SITE ACCESS AND STAGING	LUMP	1	\$76,000	\$76,000
3	DEWATERING & EROSION/SEDIMENT CONTROL	LUMP	1	\$109,000	\$109,000
4	CLEARING	ACRE	0.75	\$10,000	\$7,500
5	RIPRAP CLASS II	CY	6,600	\$100	\$660,000
6	GRANULAR FILTER	CY	1,700	\$60	\$102,000
7	EARTHWORK CUT	CY	6,600	\$12	\$79,200
8	HAUL AND OFFSITE DISPOSAL OF CLEAN FILL	CY	6,600	\$20	\$132,000
9	REVEGETATION AND RESTORATION	LUMP	1	\$100,000	\$100,000
10	AS-BUILT SURVEY	LUMP	1	\$10,000	\$10,000

Rounded Subtotal		\$1,385,000
Contingency	30%	\$416,000
ESTIMATED TOTAL		\$1,801,000
AACE Class 4 Low Range (-15%)		\$1,531,000
AACE Class 4 High Range (+30%)		\$2,341,000

Table 2: Conceptual Alternative 1 Budgetary Opinion of Probable Construction Cost for Q100 Scour Depth Rock Volume

Minnesota River Area 3 Conceptual Alternative 1 Budgetary Opinion of Probable Construction Cost Q100 Scour Depth Rock Volume May 2021					
Item #	Item	Unit	Quantity	Unit Cost	Sub total
1	MOBILIZATION AND DEMOBILIZATION	LUMP	1	\$137,000	\$137,000
2	SITE ACCESS AND STAGING	LUMP	1	\$96,000	\$96,000
3	DEWATERING & EROSION/SEDIMENT CONTROL	LUMP	1	\$137,000	\$137,000
4	CLEARING	ACRE	0.75	\$10,000	\$7,500
5	RIPRAP CLASS II	CY	8,500	\$100	\$850,000
6	GRANULAR FILTER	CY	2,100	\$60	\$126,000
7	EARTHWORK CUT	CY	8,500	\$12	\$102,000
8	HAUL AND OFFSITE DISPOSAL OF CLEAN FILL	CY	8,500	\$20	\$170,000
9	REVEGETATION AND RESTORATION	LUMP	1	\$100,000	\$100,000
10	AS-BUILT SURVEY	LUMP	1	\$10,000	\$10,000

Rounded Subtotal		\$1,736,000
Contingency	30%	\$521,000
ESTIMATED TOTAL		\$2,257,000
AACE Class 4 Low Range (-15%)		\$1,918,000
AACE Class 4 High Range (+30%)		\$2,934,000

Conceptual Alternative 2: No Action and Monitoring

Annual monitoring of the project area could assess the trajectory of the river and track the impact that the multiple processes are having on the topography and bathymetry. The monitoring would quantify sediment loading from the exposed bluff face into the river. Monitoring be implemented while funding is being pursued to implement a future project. Data collected during monitoring could be used to inform the design of that future project. Recommended monitoring would include drone-collected topography of the bluff face and upper slope, limited RTK GPS topographic survey of both left and right banks and floodplains, and hydrone-collected bathymetric survey. We suggest that monitoring occur, at minimum, once annually during leaf-off, snow-free, low flow conditions, and after river flow in excess of the 2-year event. We recommend developing a monitoring plan that would detail conditions that should be achieved before monitoring is suspended or terminated, when the frequency of monitoring should be adjusted, and how monitoring should be amended should a project be constructed.

Discussion

Rivers are dynamic systems. We cannot predict what will happen in the future, or when, but monitoring can help give us clues to figure out the trajectory of the system. At present, based on the bathymetric findings and site investigation, toe entrainment and river migration are not contributing to bluff erosion. However, we believe these processes to be cyclic and dependent on precipitation and river flows. The likelihood that erosion processes and bluff retreat will resume is high, but the timing is not predictable.

If the LMRWD wants to select a conservative approach to limit future migration of the river toward Area 3, we recommend implementing Alternative 1. However, current site conditions do not suggest that immediate action is warranted. We understand that the geotechnical recommendations do not perceive the bluff erosion to be a risk to the private properties at the top of the slope, and we believe the bluff could experience more mass wasting events before a risk is posed to those properties. At some point in the future, the river will migrate north and east, but the timescale for the initiation of that migration could vary from months to decades. Due to the lack of scientific certainty that would allow assignment of quantitative probabilities to the potential for river migration and future bluff toe erosion, we are unable to provide an engineering-based recommendation between Alternative 1 and 2.

As discussed during our alternatives review meeting on May 26, 2021, Inter-Fluve understands that the LMRWD is interested in considering time scale and step-wise approaches, if appropriate. If LMRWD chooses to implement Alternative 1, we do not recommend interim planting of the exposed bluff face and toe. Based on the anticipated design of a toe stabilization

project, construction would require removal of all overlying vegetation. Additionally, based on the anticipated river scour depth, vegetation would not prevent or reduce further hydraulic entrainment at the bluff toe. Since there are already some cottonwood and willow tree species growing in this area naturally, we do not feel that planting ahead of project completion would provide a significant benefit.

SUGGESTED SCHEDULE

Given the findings and recommendations presented within this memorandum, we suggest updating the project schedule as design discussion and alternative selection progresses. As discussed during our alternatives review meeting on May 26, 2021, Inter-Fluve understands that the LMRWD is interested in solutions that address the issue of river migration, while also reducing sediment loading. To date, based on our project understanding, our design concepts have focused on preventing river migration to the north to protect the property on the exposed bluff face, and not sediment load reductions. As design discussion and alternative selection progresses, we suggest revisiting the project goals and scope to make sure that the project meets the necessary intent.

REFERENCES

- Belmont P., K.B. Gran, S.P. Schottler, P.R. Wilcock, S.S. Day, C. Jennings, J.W. Lauer, E. Viparelli, J.K. Willenbring, D. Engstrom, and G. Parker. 2011. Large shift in source of fine sediment in the Upper Mississippi River. *Environmental Science and Technology* 45: 8804-8810.
- Call, K.S.B., S. Levine, P. Belmont, P. Larson. 2018. Minnesota River Bathymetry: 2013 - 2016 , HydroShare, <https://doi.org/10.4211/hs.6cd3728f69cb4cb39c6f11baac1734ec>. Accessed May 2021 <https://www.hydroshare.org/resource/6cd3728f69cb4cb39c6f11baac1734ec/>
- FEMA. 2016. Flood Insurance Study, Hennepin County, Minnesota (All Jurisdictions).
- Julien, P.Y. 2010. *Erosion and Sedimentation Second Edition*. Cambridge University Press.
- Lenhart, C.F., M.L. Titov, J.S. Ulrich, J.L. Nieber, and B.J. Suppes. 2013. The Role of Hydrologic Alteration and Riparian Vegetation Dynamics in Channel Evolution along the Lower Minnesota River. *Transactions of the ASABE* 56 (2): 549–61.
- Maynard, S.T. 1996. Toe-Scour Estimation in Stabilized Bendways. *Journal of Hydraulic Engineering*. Volume 122: Issue 8. August, 1996.
- Sclafani, P. 2011. Methodology for predicting maximum velocity and shear stress in a sinuous channel with bendway weirs using 1-D HEC-RAS model results. Colorado State University.
- SRF Consulting Group, Inc. 2008. Erosion Stabilization Study Study Area 3 Final Report. Prepared for the City of Eden Prairie.
- Tetra Tech. 2020. Minnesota River and Greater Blue Earth River Basin Total Suspended Solids Total Maximum Daily Load Study.
- USACE and USGS. 2004. Flood-plain Area of the Lower Minnesota River.
- Wenck Associates, Inc. 2010. Minnesota River Bank and Bluff Stabilization Eden Prairie, Minnesota. Prepared for The Lower Minnesota River Watershed District.
- Wenck Associates, Inc. 2017. 2016 Minnesota River Erosion Monitoring. Prepared for the City of Eden Prairie.
- Wilcock, P. 2009. Identifying Sediment Sources in the Minnesota River. Report to the Minnesota Pollution Control Agency, June 30, 2009.
- Young Environmental Consulting Group, LLC. 2020. Eden Prairie Area 3 and the Minnesota River—Meeting summary and recommendations. Submitted to Lower Minnesota River Watershed District.

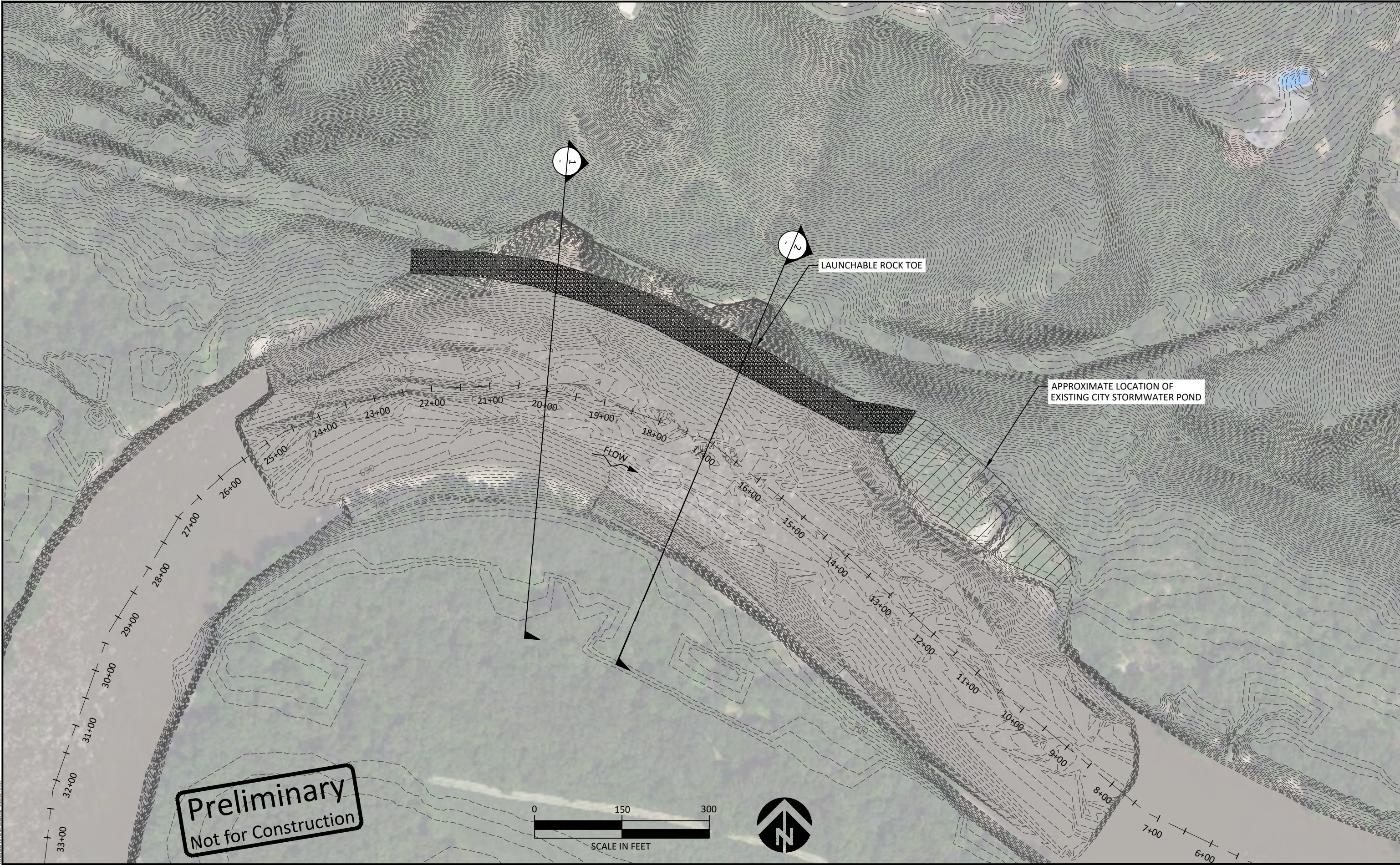
Young Environmental Consulting Group, LLC. 2020. Area 3 Site Visit Meeting Summary.

Submitted to Lower Minnesota River Watershed District.

Young Environmental Consulting Group, LLC. 2020. Area 3 Slope Stability Project Update.

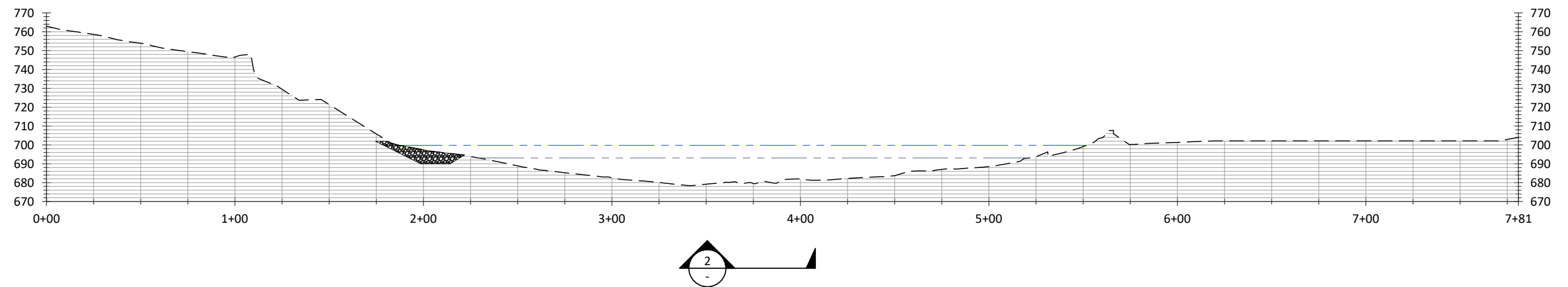
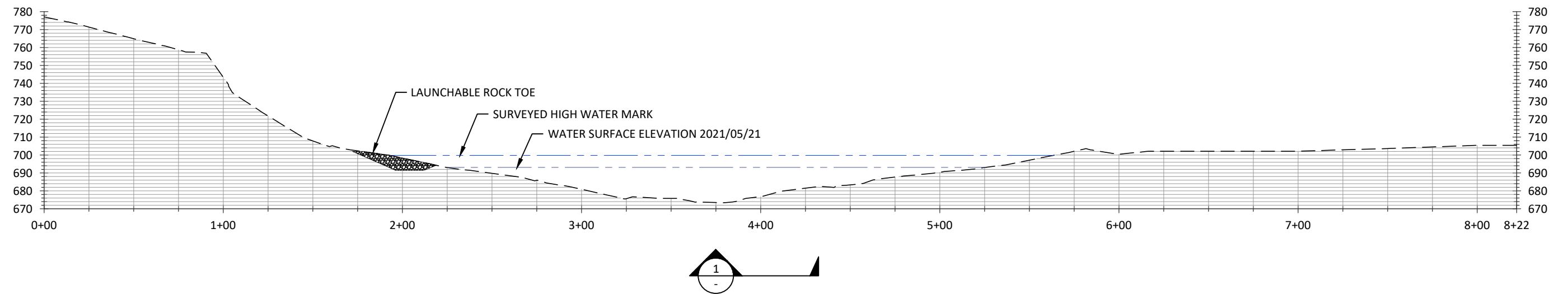
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APPENDIX 1 – CONCEPTUAL ALTERNATIVE FIGURES



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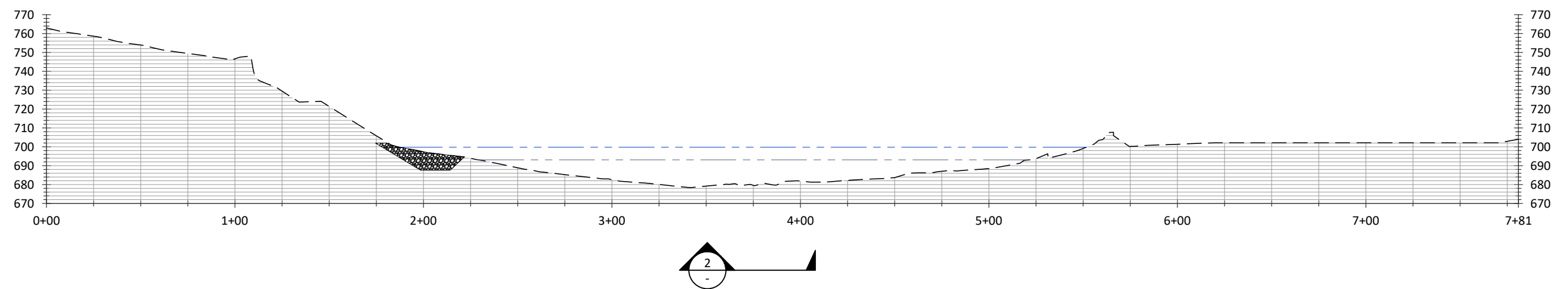
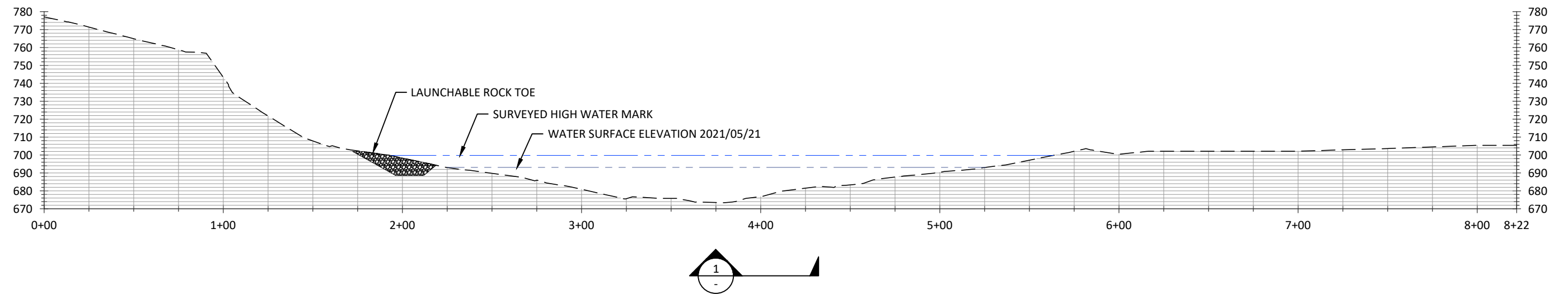
Figure 1: Concept alternative planview.



Preliminary
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Figure 2: Concept alternative 1 typical cross-section estimated Q2 scour depth rock volume.



Preliminary
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							LOWER MINNESOTA RIVER WATERSHED DISTRICT MINNESOTA RIVER AREA 3 CONCEPTUAL DESIGN	 1539 Grand Avenue, 2nd Floor Saint Paul, MN 55105 651.243.9700 www.interfluve.com	CONCEPT ALTERNATIVE 2	SHEET
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Figure 3: Concept alternative 1 typical cross-section estimated Q100 scour depth rock volume.

TECHNICAL MEMORANDUM



To: Lower Minnesota River Watershed District
From: Inter-Fluve, Inc.
Date: July 21, 2021 **Project:** Area 3 Lower Minnesota River Bank Stabilization Project
Re: 2D Hydraulic Modeling Investigation

EXECUTIVE SUMMARY

This document summarizes the two dimensional (2-D) hydraulic investigation performed for the Minnesota River Area 3 Bank Stabilization Project. The intention of this investigation is to determine the extent to which hydraulic forces are driving bank and bluff erosion at Area 3. 2-D hydraulic modeling supports previous conclusions that the primary driver of active bluff erosion is mass wasting, but that fluvial entrainment and scour of the bluff toe could become the primary driver if conditions change.

This memo supplements the investigations and findings documented in the Technical Memorandum dated May 18, 2021 titled “Area 3 Findings and Alternative Review Memorandum”, and its Addendum #1 dated June 3, 2021. The previous documents analyzed the existing conditions and one-dimensional (1-D) hydraulic model to analyze the project site. The analysis described in this memorandum builds on the previous work by developing and analyzing a 2-D hydraulic model of Area 3 to further define hydraulic constraints at the project site.

MODEL CONSTRUCTION

A 2-D hydraulic model was developed to investigate hydraulic conditions in the Minnesota River in the reach surrounding the project area (Area 3). A 2-D model is warranted because of the significant interactions between overbank and channel flow during high flows and because flow dynamics at the meander bend are bi-directional (flow moves laterally and downstream) in nature. Compared to the 1-D model previously investigated for this project (Inter-Fluve, 2021), the 2-D model provides greater detail and accuracy regarding the location and magnitude of hydraulic forces.

The 2-D model was constructed in HEC-RAS Version 5.0.7 (USACE, 2019). The 2-D model domain extends from 8,200 feet upstream of Area 3 to 1-D model Section 50, located approximately 6,500 feet downstream of the project area and includes the entire Minnesota River floodplain, from valley wall to valley wall (Figure 1). The upstream and downstream

model boundaries are located sufficiently far from Area 3 such that uncertainties in model boundary conditions are not anticipated to influence hydraulics calculations in the project area.

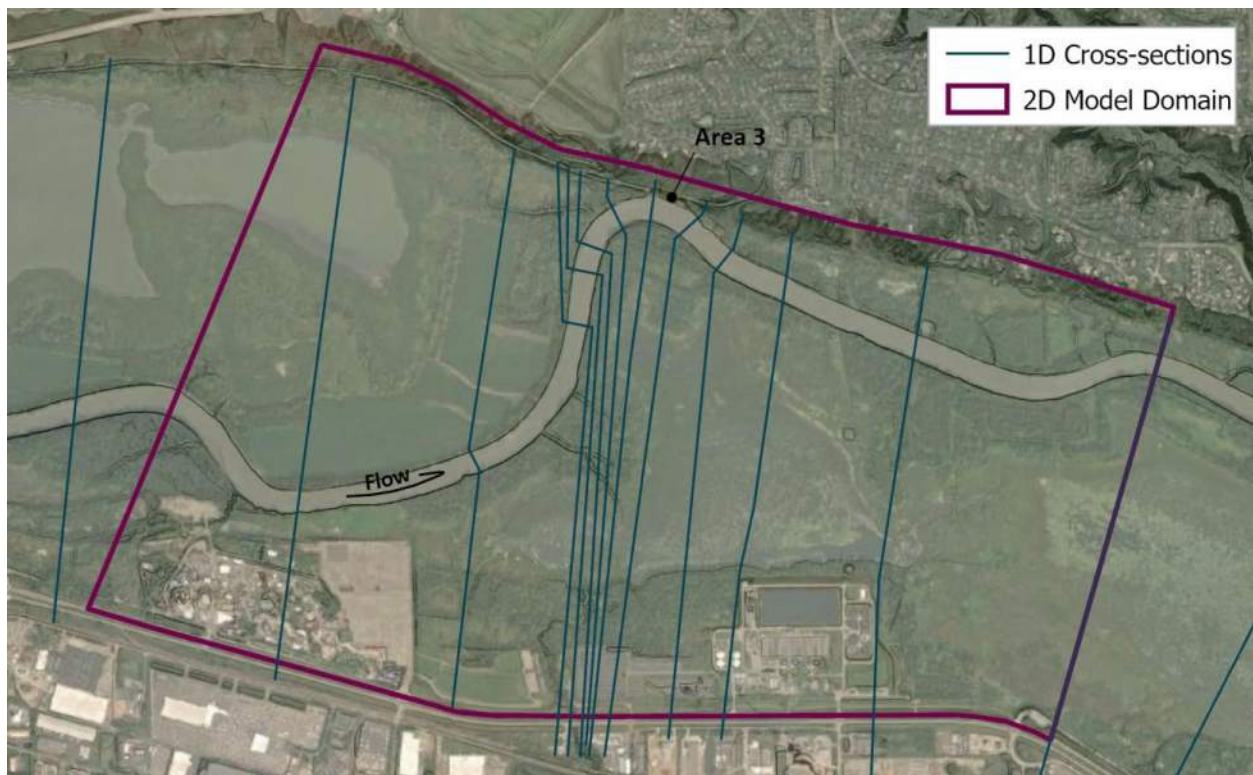


Figure 1: Map showing 1-D model cross-sections and 2-D model domain.

Topographic and bathymetric data used for modeling is based on three separate datasets, which were combined into a composite digital terrain model (DTM) of the Minnesota River and its valley. The following datasets were used to construct the DTM:

- Topographic and bathymetric survey collected on May 19th and 21st, 2021.
- Lidar collected in 2011 and downloaded from MnTopo in April, 2021.
- Bathymetry collected in 2015 (Call et al. 2018) and downloaded from Hydroshare May, 2021.

The 2-D model domain contains computational cells ranging from 30 to 100 feet, with smaller cell sizes used within primary flow conveyance pathways where additional model resolution is desired. Larger cells were located in overbank areas with less topographic and vegetative variation. Breaklines were used to align cells along the channel banks and to avoid artificial computational leaking between cells.

Hydraulic roughness was represented in the computational domain using a spatially varied Manning's n layer selected on visual inspection of land cover in publicly available satellite

imagery. Values were obtained from recommendations from the HEC-RAS 2-D user's manual (USACE, 2019) and adjusted based upon field observations. Table 1 summarizes land cover classifications and post-calibration Manning's n values used in this analysis.

Table 1. Land cover classification and associated Manning's n value used in 2-D model.

Land Cover Type	Manning's n
Agricultural Field	0.05
Asphalt	0.023
Channel	0.03
Forest	0.12
Grass	0.03
Industrial	0.12
Marsh	0.07
Open Water	0.01
Suburban	0.05

Boundary conditions for the model were obtained from flow and stage information obtained from the 1-D hydraulic model previously developed by Inter-Fluve. The downstream boundary condition was set as a rating curve using a stage/discharge relationship obtained from the 1-D model modified to remove backwater effects from the Mississippi River, which were included in the 2004 USGS/USACE hydraulic model. The resulting boundary condition assumes a steeper water surface slope, in which produce more conservative (higher) estimates of velocity and shear stress than models considering backwater influences from the Mississippi River. The upstream boundary condition is set as an inflow hydrograph consisting of a wide range of flood flows and lower, sub-bankfull flows. Flows considered for these conditions are summarized in

Table 2 and correspond to those investigated during 1-D modeling. The flows are input at quasi-steady state stepped hydrographs, in which flows of interest are allowed to come to a steady-state condition before flow is increased to the next flow of interest. This stepped hydrograph likely results in conservative estimates of floodplain inundation, as floodplain storage is allowed to reach a steady condition for a given flow.

In addition to stepped hydrograph input, an approximately 50-year return interval flood that occurred in April 2001 was modeled to investigate the effects of the rising and falling limb of that flood on hydraulic forces. Recorded discharge data from USGS Gage 05330000 in Jordan, Minnesota was input into the model for the April 2001 flood. The peak discharge associated with this flood is reported in

Table 2.

Table 2. Minnesota River flows included in 2-D model.

Flow Description	Flow (cfs)
2-year flood event	17,000
10-year flood event	48,500
50-year flood event	85,300
100-year flood event	103,000
500-year flood event	148,000

70% Mean Daily Exceedance	1,250
50% Mean Daily Exceedance	2,500
15% Mean Daily Exceedance	10,000
April 2001 Storm Event Peak ¹	87,100

¹Flow data obtained from USGS gage 05330000 at Jordan, MN, April 1-May 8, 2001

Model validation was achieved by iteratively adjusting roughness values until satisfactory agreement was reached between 2-D model results and 1-D model results at the project area.. Calibrated roughness (Manning's n) values are summarized in Table 1. Because hydraulic roughness reduces with increasing stage, models of flood flows and sub-bankfull flows were calibrated against different datasets. For sub-bankfull flows, channel roughness values were calibrated to surveyed water surface elevations from May 2021. Flood flows were calibrated against 1-D model results at model cross section 52. The average residual between the 1-D and 2-D computed flood elevation at that model section for flood flow is less than 0.1 feet, with a maximum residual of 0.12 feet.

MODEL RESULTS

The 2-D hydraulic model results indicate that the studied river reach is largely confined to the primary channel during flow events below approximately 10,000 cubic feet per second (cfs), above which overbank flows fill floodplain ponds and wetland storage. During large floods (above approximately 48,500 cfs), the majority of flow moves in the down-valley direction directly across the floodplain. Flow velocities and shear stresses in the Minnesota River are strongly influenced by the change in flow and stage. Sub-bankfull flows are confined to the main flow channel and exhibit greater flow velocities and shear stresses compared to floods which overtop banks.

Results of shear stresses from 2-D modeling are summarized in Table 3, and Appendix A contains maps of flow velocity and shear stress over the full range of flows modeled. Table 3 separates shear stress into two geographical zones: the left bank at Area 3, defined as the river bank (bluff toe, riverward of the bluff face) in the area of the eroding bluff; and the channel bed, defined as the channel riverward of the river bank. Note that the results in Table 3 do not consider the area of the non-functioning city stormwater pond located downstream of the Area 3 bluff; this area is discussed following Table 3. Significant findings of the 2-D model investigation in the area adjacent to the Area 3 bluff are summarized as follows:

1. The maximum estimated shear stress on the channel bed is 0.22 pounds per square foot (psf), which occurs at 1,250 cfs (Table 3). This and other sub-bankfull flows are competent to mobilize medium gravel (particles between 8 and 16 mm) on the channel

bed. Along the river bank, modeling indicates shear stresses are diminished, and may be competent to mobilize very fine gravel (particles between 2 and 4 mm).

2. Flood flows result in relatively low shear stress on the channel bed, though moderate floods (up to and including the 10-year recurrence interval flood) result in moderate shear stress on the left river bank. Modeled shear stresses on the banks during the 2-year and 10-year flood flows would mobilize fine and very fine gravel. Large floods greater than the 10-year flood flow have modeled shear stresses below 0.03 psf and are not likely to mobilize particles larger than very coarse sand (greater than 1 mm).
3. The modeled 2001 flood event demonstrates that the rising and falling limbs of the flood hydrograph result in the greatest modeled shear stresses. The maximum shear stresses of 0.21 psf (channel) and 0.10 psf (left river bank) occur at a flow of 32,700 cfs (Table 3). These values are greater than the equivalent steady-state modeled shear stresses at similar flows because of the relatively higher energy grade slope and relatively smaller floodplain storage associated with the flood hydrograph, as compared to the steady-state hydrograph.
4. The location of maximum shear stresses and velocities shift with increased flow (Appendix A). During the lowest flow modeled (1,250 cfs), the greatest shear stresses are concentrated at the Area 3 downstream pool tail out. As flow increases, the extent of the zone of greatest shear stress becomes more uniform in the channel through the bend. As flows approach the bankfull stage, modeled shear stress and velocity are greatest near the inside of the bend upstream of Area 3, and along the outside of the bend on the downstream end of the eroding bluff. These zones are consistent with the zones of increased velocity and shear stress associated with naturally migrating meanders in alluvial rivers (e.g., Dietrich and Smith, 1984).

Table 3: Modeled Shear Stresses at Area 3 from the 2-D Model

Flow Description	Flow (cfs)	Shear Stress on Left River Bank Toe (psf)	Shear Stress on Channel Bed (psf)	Sediment Size Mobilized on Left Bank/ Channel Bed Based on Critical Shear Stress
2-year flood event	17,000	0.09	0.13	Fine Gravel (4 mm) / Medium Gravel (8 mm)
10-year flood event	48,500	0.04	0.09	Very Fine Gravel (2 mm) / Fine Gravel (4 mm)
50-year flood event	85,300	0.01	0.03	Very Coarse Sand (1 mm) / Very Fine Gravel (2 mm)
100-year flood event	103,000	0.01	0.02	Very Coarse Sand (1 mm) /

				Very Coarse Sand (1 mm)
500-year flood event	148,000	0.01	0.02	Very Coarse Sand (1 mm) / Very Coarse Sand (1 mm)
70% Mean Daily Exceedance	1,250	0.04	0.22	Medium Gravel (8 mm) / Very Fine Gravel (2 mm)
50% Mean Daily Exceedance	2,500	0.03	0.13	Medium Gravel (8 mm) / Very Fine Gravel (2 mm)
15% Mean Daily Exceedance	10,000	0.03	0.13	Medium Gravel (8 mm) / Very Fine Gravel (2 mm)
2001 Flood Wave (max. shear)	32,700	0.10	0.21	Medium Gravel (8 mm) / Fine Gravel (4 mm)

The failed bioengineering bank protection measures downstream of the eroding bluff at Area 3, and adjacent to the non-functioning city stormwater pond were noted in Inter-Fluve's memo to LMRWD dated May 18, 2021. Modeled shear stresses on this bank are consistently between 0.15 and 0.3 psf for flows between 5,000 cfs and the 100-year recurrence interval flood, much higher than any of the modeled shear stresses on the Area 3 left river bank. The extent of elevated shear stress corresponds to bank erosion areas noted during field investigations.

ICE AND WAVE ANALYSIS

Ice cover and ice jams are relatively common along the Minnesota River between Mankato and Minneapolis. Ice cover generally occurs persistently over the winter months and ice jams typically occur in March or April (IJDb 2021). Ice cover can either increase or decrease sediment transport capacity in rivers, depending on whether the ice cover is floating or attached to the bank or bed. Most rivers feature floating ice covers, which generally result in decreased velocity and near-bed shear stress (Carr and Dahl 2017). Nevertheless, ice breakup or the formation of attached ice covers can increase roughness, velocities, and scour (Mercer and Cooper, 1977). This research suggests that the major cause of erosion due to ice jams stems from ice jam associated flooding. However, mechanical erosion due to ice jam break-up is likely an understudied phenomenon and may pose an additional risk at the project site. Data on typical ice thickness and attachment in the Lower Minnesota River is not available. Ice breakup and ice jam most likely lead to some degree of scour and sand transport at Area 3, but the effect of river ice cover on scour and mechanical erosion during ice break-up is unknown.

Boat-induced wakes and waves are potential sources of scour and bank erosion. Area 3 is located upstream of the nearest barge dock at Savage, MN, and the nearest public boat ramp is located over 5 miles upstream in Shakopee. While no data was found relating to boat traffic in the reach surrounding Area 3, the fact that the site is upstream of barge docks and relatively distant from boat launches suggests boat wakes may not be a significant source of erosive energy at Area 3.

If a proposed project is designed in this reach, the impact of ice cover and wave action on the proposed improvements will be evaluated in more detail.

DISCUSSION

Critical shear stress is the theoretical shear stress magnitude at which a given particle size will mobilize. Results of the 2-D hydraulic model suggest that under sub-bankfull flow conditions, the largest particle class expected to be mobilized in the channel is medium gravel, and the largest particle class expected to be mobilized along the river bank toe is very fine gravel. Pools have more hydraulic influence under sub-bankfull flow conditions, and cause acceleration as flows enter and exit the pools due to the abrupt change in cross-sectional flow area at these locations. This phenomenon is demonstrated by the model at 1,250 cfs. The 2-year return interval flood and the rising limb of the April 2001 flood hydrograph resulted in the greatest modeled shear stresses on the bank at Area 3. Although medium gravels on the banks would be mobilized during these events, neither is likely to occur frequently enough to result in continued evacuation of material from the bank slope.

Sediments observed between recent high-water marks and the lower water surface consisted of poorly sorted sands and gravels, with larger debris and coarse material showing no indication of fluvial entrainment (Figure 2). These observations corroborate the model results presented in Table 3.



Figure 2: Sediment exposed below the high-water line at Area 3. Photo taken 5/21/2021.

The geographic shear stress distribution at Area 3 is consistent with historic aerial photo observations of northward and down-valley migration of the meander bend. Meandering rivers typically experience the greatest shear stresses on the upstream end of the point bar (on the inside bend), and on the downstream end of the bank on the outside bend. In the case of the Minnesota River, eroding banks with significant fluvial entrainment of materials at the toe generally feature steep banks with exposed roots as markers of active erosion.

Such an area is evident on the downstream end of the meander bend at the location of the bioengineered bank near the non-functioning city stormwater pond, and along a short section of bank downstream of the stormwater pond. Model results indicate that this area experiences relatively higher shear stresses (0.28 psf at 10,000 cfs) compared with other areas along the left bank during both typical (sub-bankfull) flows and flood flows (Figure 3). Field observations of this area corroborate this finding, as the bank in this area is nearly vertical and actively failing, with signs of recent evacuation of sediments (Figure 4). Taken together, 2-D model results and field observations suggest that this active bank erosion is caused by fluvial entrainment of material at the bank toe, leading to mass wasting of the bank.

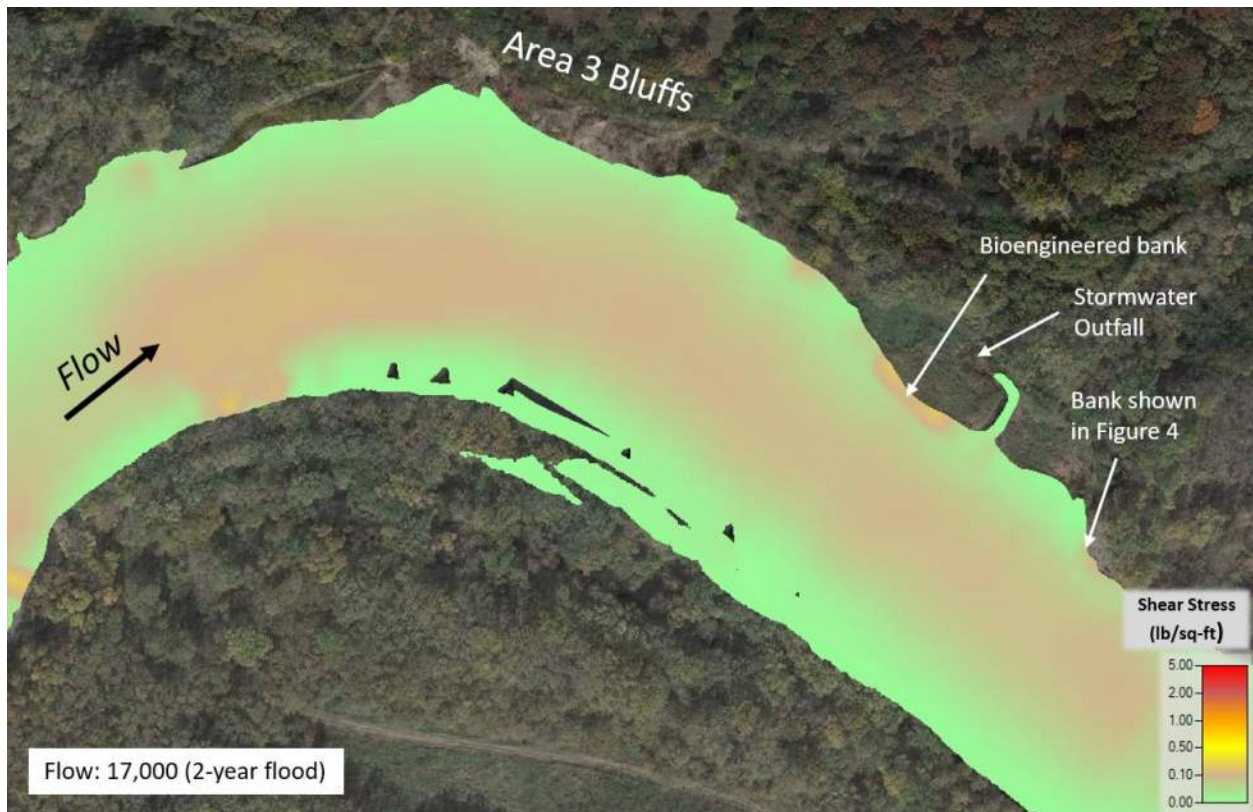


Figure 3. 2-D model results showing shear stress at a steady-state flow of 10,000 cfs. Modeled shear stress along the bioengineered bank is 0.20 psf, and shear stress on the bank shown in Figure 4 is 0.10 psf.



Figure 4. Eroding streambank located downstream of the non-functioning city stormwater pond (indicated in Figure 3).

Hydraulic modeling combined with field observations of the bluff at Area 3 create a comprehensive view of the sediment transport processes occurring near the bluff toe. As mass wasting of the bluff slope occurs, sand and gravel is transported downslope and deposits at the base of the slope. In this way, bluff sediment is a source of sediment to the river. During periods of sub-bankfull flows, submerged sand and very fine gravel is entrained and transported along the left river bank. During periods of small floods (approximately 10,000 cfs to 17,000 cfs) and during periods of sharply rising and falling flow levels, larger materials on the banks may be mobilized. As was stated in the preliminary analysis, fluvial entrainment of material along the left river bank is the initial cause of Area 3 bluff slope failures. Subsequent mass wasting, seepage, and rill erosion continue to contribute sediment from the bluff above the ordinary high water line into the toe area and the river.

Entrainment of toe material is also the primary cause of bank erosion downstream of the Area 3 bluffs, and in this area, active scour is more recent and visible. As evidenced by the photograph of the base of the bluff taken following spring runoff flows in 2021, bank materials are primarily sand but do show minor winnowing or development of an armor layer (Figure 5).



Figure 5. View of the base of the bluff at Area 3. Photo was taken on May 21, 2021 following higher spring flows; lines on the bank indicate previous high-water marks.

SUMMARY

2-D Hydraulic modeling indicates that sub-bankfull flows are competent to mobilize sand and gravel within the Minnesota River channel; however, during these flows, shear stresses are diminished on the left river bank at Area 3. The greatest modeled shear stresses occurred on the left river bank at Area 3 during the 2-year return interval flood and during the rising limb of the hydrograph during a simulation of the 50-year return interval flood observed in April 2001. However, conditions which would inundate significant portions of the river bank and mobilize sediments do not occur frequently enough to account for continual evacuation of material over the long term. During large floods, elevated porewater pressures on the bluff slope and mild shear stresses from water flow may move slope materials (Inter-Fluve, 2021); these mechanisms are fundamentally different processes than entrainment at the slope toe.

Examination of an eroding bank downstream of Area 3 provides a frame of reference for an eroding bank resulting from toe entrainment. This bank is located on the downstream side of the outside of the meander bend, and features an unvegetated, near vertical slope. Here, modeling indicates that bank materials are capable of being entrained in flow and removed. By contrast, at the time of the field survey, the base of the bluffs at Area 3 showed slumped material from the upper bluff instead of an eroding bank. The 2-D model results show that sand and gravel can be mobilized in this location, however the current active process of slumping from the upper slope appears to be overcoming the process of toe entrainment.

Our analysis indicates that fluvial entrainment and scour at the bluff toe was likely the primary, initial cause of bluff slope failures at Area 3. However, the shallow sloped material beneath the bankfull line, and small vegetated floodplains beneath the scallops suggests there is no recent or active toe scour. Scour may still periodically occur at the project site, but any of the evidence of the scour is filled by eroded bluff material or from sediment transported from upstream. Hydraulic modeling supports previous conclusions that the primary driver of active bluff erosion is mass wasting, but that fluvial entrainment and scour of the bluff toe could become the primary driver if conditions change.

REFERENCES

- Carr, M.L., and Dahl, T.A. 2017. Review of Ice-Induced Scour Impacts to Navigation and Structures. USACE Navigation Systems Research Program.
- Call, K.S.B., S. Levine, P. Belmont, P. Larson. 2018. Minnesota River Bathymetry: 2013 - 2016, HydroShare, <https://doi.org/10.4211/hs.6cd3728f69cb4cb39c6f11baac1734ec>. Accessed May 2021 <https://www.hydroshare.org/resource/6cd3728f69cb4cb39c6f11baac1734ec/>
- Dietrich, W.E., and Smith, J.D. 1984. Bed Load Transport in a River Meander. Water Res. Research, Vol. 20 (10), pp. 1355-1380.
- FEMA. 2016. Flood Insurance Study, Hennepin County, Minnesota (All Jurisdictions).
- Ice Jam Database (ICDb). 2021. Maintained by Ice Engineering Group at Cold Regions Research and Engineering Laboratory. Accessed June 2021.
<https://icejam.sec.usace.army.mil/ords/f?p=101:7:::NO>
- Inter-Fluve. 2021. Area 3 Findings and Alternative Review Memorandum. Submitted to LMRWD May 15, 2021.
- Mercer, A. G., and R. H. Cooper. 1977. River Bed Scour Related to the Growth of a Major Ice Jam. In Proceedings of the 3rd National Hydrotechnical Conference, Quebec, 30–31 May, 291–308. Montreal, Quebec: The Canadian Society for Civil Engineering.
- U.S. Army Corps of Engineers (USACE). 2019. HEC-RAS River Analysis System. User's Manual. Hydrologic Engineering Center, Davis, CA.

Appendix B - 60% Design Drawings

MINNESOTA RIVER AREA 3

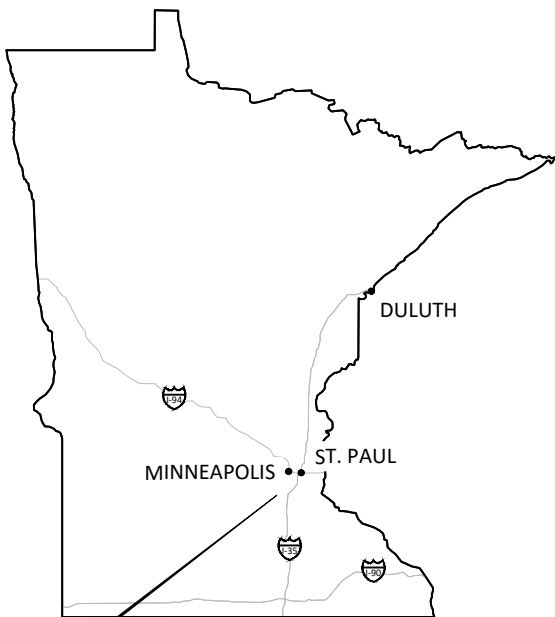
BLUFF TOE STABILIZATION & STORMWATER POND GRADING

60% DESIGN

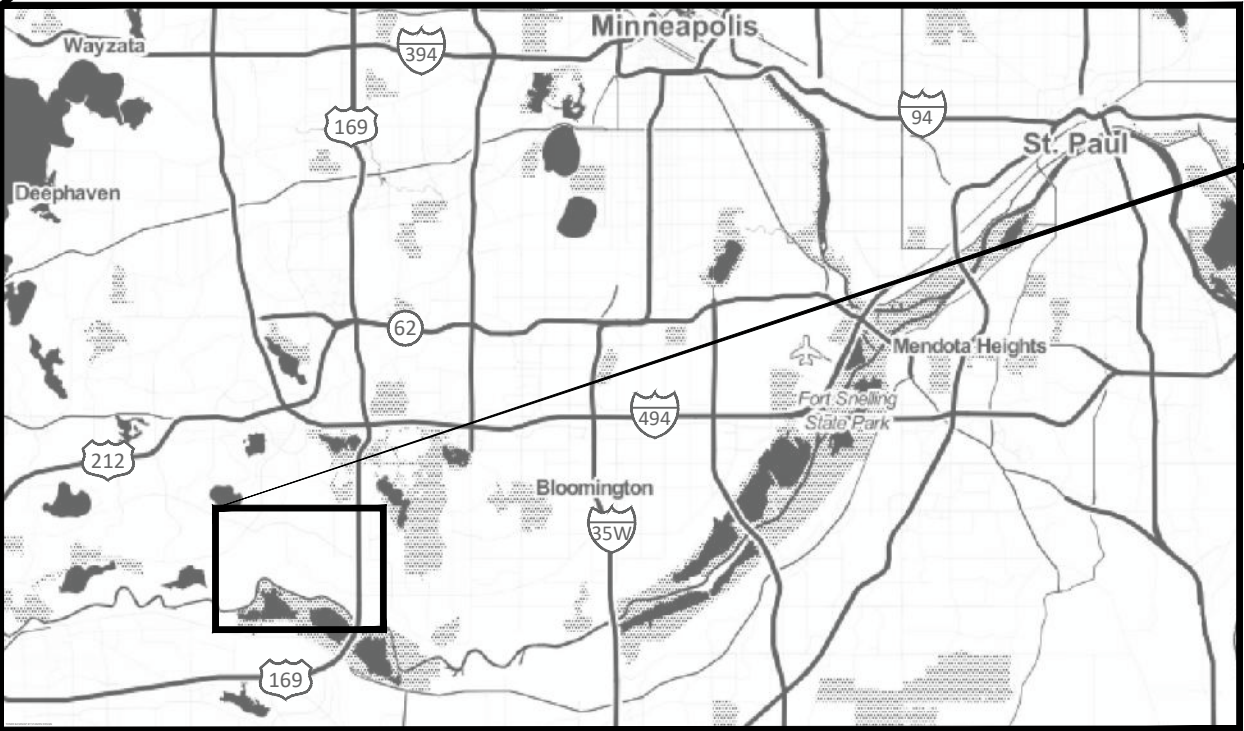
JANUARY, 2023

Sheet List Table

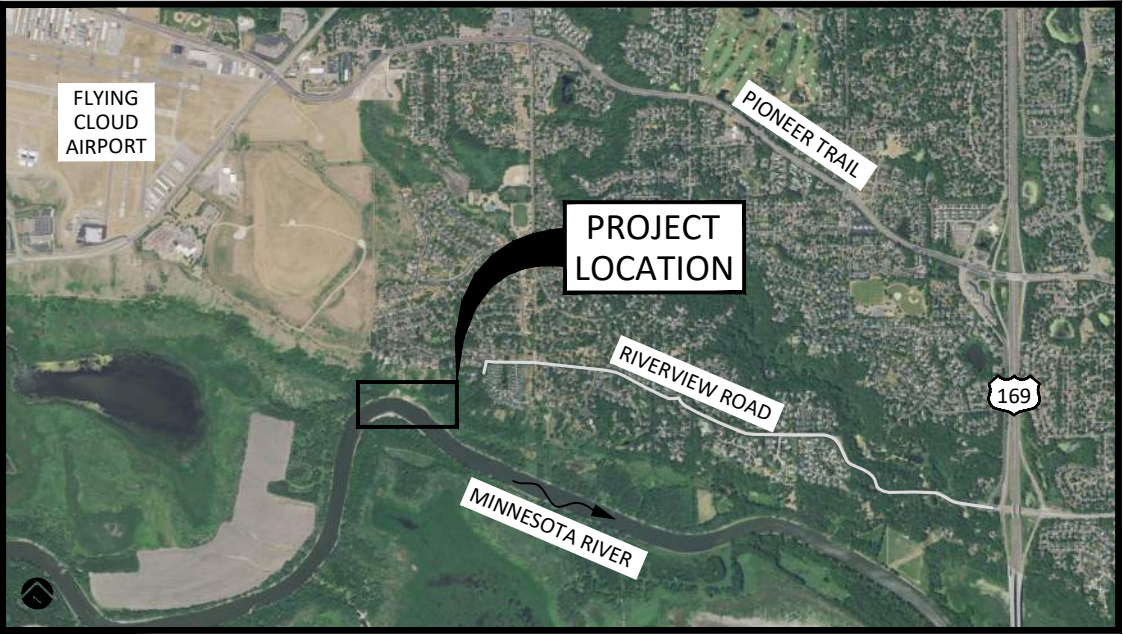
- 1 TITLE SHEET
- 2 GENERAL NOTES AND SWPPP
- 3 SITE ACCESS AND EROSION CONTROL
- 4 EXISTING CONDITIONS
- 5 PROPOSED CONDITIONS AND GRADING
- 6 GRADING SECTIONS (1 OF 2)
- 7 GRADING SECTIONS (2 OF 2)
- 8 REVEGETATION PLAN
- 9 TYPICAL SECTION (1 OF 2)
- 10 TYPICAL SECTIONS (2 OF 2) AND DETAILS
- 11 EROSION CONTROL DETAILS (1 OF 4)
- 12 EROSION CONTROL DETAILS (2 OF 4)
- 13 EROSION CONTROL DETAILS (3 OF 4)
- 14 EROSION CONTROL DETAILS (4 OF 4)
- 15 STORMWATER OUTLET PLAN AND PROFILE
- 16 APRON STRUCTURE DETAIL
- 17 CROSS SECTIONS



LOCATION MAP - MINNESOTA
NOT TO SCALE



VICINITY MAP
NOT TO SCALE



SITE MAP
NOT TO SCALE

COORDINATES:
LATITUDE: 44.8127°
LONGITUDE: -93.4369°
EDEN PRAIRIE, MINNESOTA
WATERBODY: MINNESOTA RIVER

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

PRINT NAME: **Preliminary**
SIGNATURE: **Not for Construction**
DATE: _____

				SM	NJ, MH, BP	MM, DM
				DRAWN	DESIGNED	CHECKED
				JK	1/27/2023	21-04-21
				APPROVED	DATE	PROJECT
NO.	BY	DATE	REVISION DESCRIPTION			

MINNESOTA RIVER AREA 3
BLUFF TOE STABILIZATION & STORMWATER POND GRADING
60% DESIGN



1539 Grand Avenue, 2nd Floor
Saint Paul, MN 55105
651.243.9700
www.interfluve.com

TITLE SHEET

SHEET

1 OF 17

PROJECT INFORMATION

THE PROJECT CONSISTS OF EXCAVATION, GRADING, RIPRAP PLACEMENT, AND REVEGETATION WITH NATIVE PLANT SPECIES ON THE BANKS OF THE MINNESOTA RIVER, EDEN PRAIRIE, MINNESOTA.

PROJECT OWNER:

LOWER MINNESOTA RIVER WATERSHED DISTRICT

CONTACT: TBD

CONTACT PHONE: TBD

CONTACT EMAIL: TBD

SUGGESTED GENERAL CONSTRUCTION SEQUENCE*

1.

INSTALL EROSION AND SEDIMENTATION CONTROL MEASURES, ESTABLISH SITE ACCESS.

2.

ESTABLISH DEWATERING AND TURBIDITY CONTROL MEASURES.

3.

INSTALL PROPOSED BLUFF TOE STABILIZATION, FLOODPLAIN TRENCH, STORMWATER POND CONVEYANCE CHANNEL, AND STORMWATER POND BANK GRADING.

4.

REMOVE DEWATERING AND TURBIDITY CONTROL MEASURES.

5.

INSTALL VEGETATION, SEED, AND EROSION CONTROL MEASURES.

6.

DECOMMISSION ACCESS ROUTES, COMPLETE SITE RESTORATION.

GENERAL NOTES

1.

THE PROJECT IS LOCATED IN A DYNAMIC ENVIRONMENT. CONTOURS AND TOPOGRAPHIC INFORMATION SHOWN REFLECTS THE MOST RECENTLY COLLECTED SURVEY AND FIELD INFORMATION. CONDITIONS AT THE TIME OF CONSTRUCTION MAY DIFFER FROM WHAT IS SHOWN IN THESE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFORM WITH THE TYPICAL SECTIONS AND FIELD SET ITEMS.

2.

APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES SHALL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.

3.

CONTRACTOR SHALL COMPLETE QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES TO ENSURE CONTROL POINTS AND REFERENCE DATUM ARE ACCURATELY MAINTAINED THROUGHOUT CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SURVEY CONTROL THROUGHOUT PROJECT AND IS RESPONSIBLE FOR VERIFYING THAT THE WORK IS COMPLETED CORRECTLY PER THE LOCATIONS, LINES, AND GRADES SPECIFIED ON THE DRAWINGS. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPLETING ANY REWORK NECESSARY TO CORRECTLY IMPLEMENT THE WORK.

4.

EXISTING DATA AND SURVEY:

4.1.

TOPOGRAPHIC AND BATHYMETRIC SURVEYS WERE COMPLETED ON 05/21/2021 AND 10/31/2022.

4.2.

PARCEL BOUNDARIES WERE DOWNLOADED FROM HENNEPIN COUNTY PARCEL DATASET ON 04/01/2021. CONTRACTOR IS RESPONSIBLE FOR VERIFYING PARCEL BOUNDARIES.

4.3.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE AND PROTECT PRIVATE PROPERTY.

5.

CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ANY AND ALL PERMITS NECESSARY TO COMPLETE THE WORK.

6.

CONTRACTOR SHALL PERFORM WORK IN ACCORDANCE WITH ALL PROJECT AND REGULATORY PERMITS AND ASSOCIATED RULES, REQUIREMENTS, REGULATIONS AND CONDITIONS.

7.

IF WORK BRINGS CONTRACTOR IN CONTACT WITH ANY CULTURAL RESOURCES OR ARTIFACTS, WORK MUST IMMEDIATELY DISCONTINUE ALL GROUND DISTURBING ACTIVITY. DO NOT TOUCH OR MOVE THE OBJECTS AND MAINTAIN THE CONFIDENTIALITY OF THE SITE. NOTIFY OWNER IMMEDIATELY.

8.

CONTRACTOR SHALL HAVE SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY.

9.

NEITHER THE OWNER NOR THE ENGINEER WILL BE RESPONSIBLE FOR ENFORCING SAFETY MEASURES OR REGULATIONS. CONTRACTOR SHALL DESIGN, CONSTRUCT AND MAINTAIN ALL SAFETY DEVICES AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL HEALTH AND SAFETY STANDARDS, LAWS AND REGULATIONS.

10.

CONTRACTOR SHALL HAVE THE MOST RECENT APPROVED SET OF FINAL PLANS AND ALL CONTRACT DOCUMENTS ON THE JOB SITE AT ALL TIMES.

11.

UPON COMPLETION OF EACH DAY'S WORK, CONTRACTOR SHALL BE RESPONSIBLE FOR LEAVING THE WORK AREA FREE OF HAZARDS, IN A NEAT AND SIGHTLY CONDITION FREE OF DEBRIS AND LITTER, AND SHALL PROVIDE ALL NECESSARY TEMPORARY SIGNS, DEVICES AND BARRICADES.

12.

CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING VEGETATION AND GROUND SURFACES.

13.

ANY EXCESS MATERIAL SHALL BE STOCKPILED NEATLY IN AN APPROVED LOCATION WITH APPROPRIATE SEDIMENT CONTROL MEASURES. AT THE COMPLETION OF WORK, THE MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY, OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.

14.

CONTRACTOR SHALL KEEP ACCURATE AND LEGIBLE RECORDS OF ALL CHANGES OF WORK THAT OCCUR DURING CONSTRUCTION AND INFORMATION ON "AS-BUILT" CONDITIONS. DOCUMENTATION OF CHANGES AND AS-BUILT INFORMATION SHALL BE NOTED ON MARKED UP RECORD DRAWINGS.

15.

CONTRACTOR SHALL TAKE NECESSARY STEPS TO PROTECT THE PROJECT AND ADJACENT PROPERTY, STRUCTURES, UTILITIES AND LANDSCAPING FROM ANY DAMAGE, EROSION OR SILTATION.

16.

ALL NON-PAVED DISTURBED AREAS SHALL BE RESTORED TO A CONDITION BETTER THAN OR EQUAL TO ITS PRE-CONSTRUCTION CONDITION.

17.

ONLY TREES IDENTIFIED TO BE REMOVED ON THE PLANS AND CONFIRMED BY THE PROJECT OWNER IN THE FIELD SHALL BE REMOVED.

18.

THE CONTRACTOR AGREES TO DEFEND AND INDEMNIFY THE OWNER AND THE ENGINEER, AND THEIR RESPECTIVE OFFICERS, DIRECTORS, MEMBERS, PARTNERS, PRINCIPALS, AND EMPLOYEES (COLLECTIVELY, "INDEMNITIES") FROM AND AGAINST ANY AND ALL CLAIMS, DAMAGES CAUSES OF ACTION, LIABILITY, AND COSTS INCLUDING REASONABLE ATTORNEYS' FEES AND COSTS, ARISING FROM OR IN ANY WAY RELATED TO THE PERFORMANCE OF THE WORK UNDER THIS CONTRACT OR ALLEGED TO RELATE IN ANY WAY TO THE WORK PERFORMED UNDER THIS CONTRACT. THIS INDEMNITY OBLIGATION INCLUDES ANY CLAIM, CAUSE OF ACTION, DEMAND, LIABILITY, OR COST ARISING FROM OR IN ANY WAY RELATED TO ANY ACT OR OMISSION OF ANY SUBCONTRACTOR OR SUPPLIER OF THE CONTRACTOR. THE CONTRACTOR IS NOT OBLIGATED TO INDEMNIFY THE INDEMNITEES FOR DAMAGES THAT ARE JUDICIALLY DETERMINED TO HAVE BEEN CAUSED BY THE NEGLIGENCE OR INTENTIONAL MISCONDUCT OF THE INDEMNITEES.

19.

NEITHER THE PROFESSIONAL ACTIVITIES OF THE OWNER/ENGINEER, NOR THE PRESENCE OF THE

OWNER/ENGINEER AT THE PROJECT SITE, SHALL IMPOSE ANY DUTY ON THE OWNER/ENGINEER, NOR SHALL IT RELIEVE THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS OF ANY OF THEIR RESPONSIBILITIES AND DUTIES TO PERFORM THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND TO COMPLY WITH ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. THE OWNER/ENGINEER DOES NOT HAVE AUTHORITY TO CONTROL ANY CONTRACTOR OR ITS EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PROGRAMS OR PROCEDURES. THE CONTRACTOR AND SUBCONTRACTORS ARE SOLELY RESPONSIBLE FOR JOB SITE SAFETY. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL DEFEND, INDEMNIFY, AND HOLD HARMLESS THE COUNTY/ENGINEER FROM ANY AND ALL CLAIMS, LOSSES, SUITS, DAMAGES, AND LIABILITIES, INCLUDING ATTORNEYS' FEES AND COSTS ARISING IN ANY WAY FROM SUCH CONTRACTORS' OR SUBCONTRACTORS' SERVICES OR WORK PRODUCT, EXCEPT TO THE EXTENT CAUSED BY THE SOLE NEGLIGENCE OF THE OWNER/ENGINEER.

EROSION/SEDIMENTATION/POLLUTION CONTROL NOTES

1.

CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO IMPLEMENT SOIL EROSION AND SEDIMENT CONTROL WORK IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS AND PERMITS.

2.

SOIL EROSION AND SEDIMENT CONTROLS MUST BE IMPLEMENTED PRIOR TO ANY GROUND DISTURBING ACTIVITY ON THE PROJECT SITE, AND IN SUCH A MANNER TO ENSURE THAT SEDIMENT AND SEDIMENT LADEN WATER DOES NOT LEAVE THE SITE, ENTER DRAINAGE SYSTEMS OR VIOLATE APPLICABLE WATER STANDARDS.

3.

ALL EXPOSED SOIL AREAS WITHIN THE CONSTRUCTION LIMITS SHALL BE STABILIZED WITHIN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY (WILL NOT RESUME FOR A PERIOD EXCEEDING 7 CALENDAR DAYS) OR PERMANENTLY CEASED. EXPOSED SOIL AREAS MUST HAVE TEMPORARY EROSION PROTECTION (EROSION CONTROL BLANKET, SEED) OR PERMANENT COVER YEAR ROUND.

4.

CONTRACTOR SHALL IMPLEMENT APPROPRIATE CONSTRUCTION PHASING, HORIZONTAL SLOPE GRADING, AND OTHER CONSTRUCTION PRACTICES THAT MINIMIZE EROSION. STABILIZATION MUST BE COMPLETED WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER. PIPE OUTLETS MUST BE PROVIDED WITH TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24 HOURS OF CONNECTION TO A SURFACE WATER.

5.

SEDIMENT CONTROL PRACTICES SHALL MINIMIZE SEDIMENT FROM ENTERING SURFACE WATERS. THE FOLLOWING MEASURES WILL BE TAKEN AS SEDIMENT CONTROL PRACTICES IN ORDER TO MINIMIZE SEDIMENTS FROM ENTERING SURFACE WATERS:

5.1.

INSTALLATION OF SEDIMENT CONTROL PRACTICES ON ALL DOWN GRADIENT PERIMETERS PRIOR TO LAND DISTURBING ACTIVITIES.

5.2.

SILT FENCING, BIOLOGS, OR OTHER SEDIMENT CONTROL SURROUNDING TEMPORARY SOIL STOCKPILES.

5.3.

VEHICLE TRACKING BMP AT CONSTRUCTION SITE ENTRANCE/EXIT. STREET SWEEPING SHALL BE PERFORMED IF VEHICLE TRACKING BMPS ARE NOT ADEQUATE TO PREVENT SEDIMENT TRACKING. TRACKED SEDIMENT MUST BE REMOVED FROM ALL PAVED SURFACES BOTH ON AND OFFSITE WITHIN 24 HOURS OF DISCOVERY PER THE PERMIT.

5.4.

SILT CURTAINS SURROUNDING WORK AREA.

6.

THE FOLLOWING GUIDELINES SHALL BE USED TO DETERMINE IF POLLUTION CONTROL DEVICES REQUIRE MAINTENANCE, REPAIR, OR REPLACEMENT:

6.1.

IF SEDIMENT CONTROL DEVICES SUCH AS SILT FENCE ARE FILLED TO 1/3 THE HEIGHT OF THE FENCE, REMOVE ALL SEDIMENT WITHIN 24 HOURS OF DETECTION OR NOTIFICATION.

6.2.

IF THE STABILIZED CONSTRUCTION ENTRANCE(S) ARE FILLED WITH SEDIMENT EITHER REPLACE THE ENTRANCE OR ADD ADDITIONAL GRAVEL WITHIN 24 HOURS OF DETECTION OR NOTIFICATION.

6.3.

IF SEDIMENT FROM THE SITE IS OBSERVED ON ADJACENT STREETS OR OTHER PROPERTIES, THE CONTRACTOR SHALL IDENTIFY THE SOURCE AND DISCHARGE LOCATION OF THE SEDIMENT AND IMPLEMENT ADDITIONAL EROSION AND SEDIMENT CONTROLS AT THOSE LOCATIONS TO PREVENT FUTURE DISCHARGES.

6.4.

IF BUILDING MATERIALS, CHEMICALS, OR GENERAL REFUSE IS BEING USED, STORED, DISPOSED OF, OR OTHERWISE MANAGED INAPPROPRIATELY, CORRECT SUCH DEFECTS WITHIN 24 HOURS OF DETECTION OR NOTIFICATION.

7.

SOLID WASTE, INCLUDING BUT NOT LIMITED TO, FLOATING DEBRIS, PAPER, PLASTIC, FABRIC, CONSTRUCTION AND DEMOLITION DEBRIS AND OTHER WASTE MUST BE DISPOSED OF PROPERLY AND MUST COMPLY WITH MPCA DISPOSAL REQUIREMENTS.

8.

HAZARDOUS MATERIALS, INCLUDING BUT NOT LIMITED TO OIL, GASOLINE, PAINT AND ANY HAZARDOUS SUBSTANCE MUST BE PROPERLY STORED INCLUDING SECONDARY CONTAINMENTS, TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH MCPA REGULATIONS.

9.

EXTERNAL WASHING OF TRUCKS AND OTHER CONSTRUCTION VEHICLES MUST BE LIMITED TO A DEFINED AREA OF THE SITE. RUNOFF MUST BE CONTAINED AND WASTE PROPERLY DISPOSED OF. NO ENGINE DEGREASING IS ALLOWED ON SITE. REASONABLE STEPS TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS SHALL BE TAKEN. ADEQUATE SUPPLIES MUST BE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS; CONDUCT FUELING IN A CONTAINED AREA UNLESS INFEASIBLE.

10.

FERTILIZERS AND LANDSCAPE MATERIALS MUST BE UNDER COVER TO PREVENT THE DISCHARGE OF POLLUTANTS OR PROTECTED BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER.

11.

PORTABLE TOILETS SHALL BE POSITIONED SO THAT THEY ARE SECURE AND SHALL NOT BE TIPPED OR KNOCKED OVER - SANITARY WASTE SHALL BE DISPOSED OF PROPERLY.

12.

ALL AREAS DISTURBED BY CONSTRUCTION AS DESIGNATED WILL RECEIVE VEGETATIVE COVER ACCORDING TO THE DRAWINGS AND SPECIFICATIONS AND WITHIN THE SPECIFIED VEGETATIVE TIME SCHEDULE. FINAL STABILIZATION WILL OCCUR WHEN THE SITE HAS A UNIFORM VEGETATIVE COVER WITH A DENSITY OF 70% OVER THE RESTORED PERVIOUS AREAS. ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMPS (SUCH AS SEDIMENT CONTROL LOGS) SHALL BE REMOVED AS PART OF THE SITE FINAL STABILIZATION. ALL SEDIMENT MUST BE CLEANED OUT OF CONVEYANCES AND TEMPORARY SEDIMENTATION BASINS IF APPLICABLE.

SUPPORTING SWPPP CONTENT

1.

SWPPP CONTENT IS INTEGRATED IN THE CONTRACT DOCUMENTS.

2.

SOIL MAP. DATA FROM USDA NRCS WEB SOIL SURVEY HENNEPIN COUNTY, MINNESOTA (MN053).

L2B

L32D

L32F

L4D

L39A

L12A

AaB

W

MAP UNIT SYMBOL

AaB

L32F

L39A

L12A

L32D

L4D

L2B

W

MAP UNIT NAME

ALLUVIAL LAND, 2 TO 6 PERCENT SLOPES

HAWICK LOAMY SAND, 20 TO 40 PERCENT SLOPES

MINNEISKA FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES, OCCASIONALLY FLOODED

MUSKEGO, BLUE EARTH, AND HOUGHTON SOIL, PONDED, 0 TO 1 PERCENT SLOPES, FREQUENTLY FLOODED

HAWICK GRAVELLY SANDY LOAM, 12 TO 20 PERCENT SLOPES

CROWFORK LOAMY SAND, 12 TO 18 PERCENT SLOPES

MALARDI-HAWICK COMPLEX, 1 TO 6 PERCENT SLOPES

WATER

3.

SITE WORK INCLUDES WORK IN AREAS THAT DRAINS TO THE MINNESOTA RIVER. IMPAIRED WATERS WITHIN 1 MILE OF THE CONSTRUCTION SITE INCLUDE THE MINNESOTA RIVER, PURGATORY CREEK, PRIOR LAKE OUTLET CHANNEL.

4.

AN INSPECTION LOG SHALL BE COMPLETED BY THE CONTRACTOR FOR THE CONSTRUCTION SITE.

5.

CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTION OF EROSION CONTROL MEASURES.

6.

TRAINING DOCUMENTATION WILL BE INCORPORATED INTO THIS SWPPP AS SOON AS THE PERSONNEL FOR THE PROJECT HAVE BEEN DETERMINED. THE CONTRACTOR WILL MAKE CORRECTIONS OR REPAIRS REQUIRED TO COMPLY WITH APPLICABLE PERMITS.

7.

INSPECTIONS AT THE SITE WILL BE COMPLETED IN ACCORDANCE WITH THE PERMIT AS FOLLOWS:

7.1.

ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND,

7.2.

WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS.

8.

AT A MINIMUM, THE FOLLOWING SHALL BE COMPLETED DURING EACH INSPECTION:

8.1.

RECORD DATE AND TIME OF INSPECTION.

8.2.

RECORD RAINFALL RECORDS SINCE THE MOST RECENT INSPECTION.

8.3.

INSPECT THE SITE FOR EXCESS EROSION AND SEDIMENTATION.

8.4.

INSPECT THE SITE FOR DEBRIS, TRASH, AND SPILLS.

8.5.

INSPECT TEMPORARY EROSION AND SEDIMENTATION CONTROL DEVICES.

8.6.

INSPECT CONSTRUCTION ENTRANCES FOR SEDIMENT TRACKING ONTO PUBLIC STREETS.

8.7.

RECORD RECOMMENDED REPAIRS AND MODIFICATIONS TO EROSION AND SEDIMENT CONTROLS.

8.8.

RECOMMEND ANY NECESSARY CHANGES TO THIS SWPPP.

8.9.

RECORD REPAIRS AND MODIFICATIONS IMPLEMENTED SINCE PREVIOUS INSPECTIONS.

8.10.

INSPECT THE ADJACENT STREETS AND CURB AND GUTTER FOR SEDIMENT, LITTER, AND CONSTRUCTION DEBRIS.

9.

THE CONTRACTOR SHALL UPDATE THE SWPPP, INCLUDING THE JOBSITE BINDER AND SITE MAPS, TO REFLECT THE PROGRESS OF CONSTRUCTION ACTIVITIES AND GENERAL CHANGES TO THE PROJECT SITE. UPDATES SHALL BE MADE DAILY TO TRACK PROGRESS WHEN ANY OF THE FOLLOWING ACTIVITIES OCCUR: BMP INSTALLATION, MODIFICATION OR REMOVAL, CONSTRUCTION ACTIVITIES (E.G. PAVING, SEWER INSTALLATION, ETC), CLEARING, GRUBBING, GRADING, OR TEMPORARY AND PERMANENT STABILIZATION.

10.

THE CONTRACTOR MAY UPDATE OR MODIFY THE SWPPP WITHOUT ENGINEER APPROVAL IN AN EMERGENCY SITUATION TO PREVENT SEDIMENT DISCHARGE OR PROTECT WATER QUALITY. THE CONTRACTOR IS ULTIMATELY RESPONSIBLE TO ENSURE COMPLIANCE WITH APPLICABLE PERMITS AND PROTECTION OF DOWNSTREAM WATER QUALITY.

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

PRINT NAME:

SIGNATURE:

LICENSE #

Preliminary

Not for Construction

SM

NJ, MH, BP

MM, DM

DRAWN

DESIGNED

CHECKED

JK

1/27/2023

21-04-21

APPROVED

DATE

PROJECT

MINNESOTA RIVER AREA 3

BLUFF TOE STABILIZATION & STORMWATER POND GRADING

60% DESIGN

inter-fluve

1539 Grand Avenue, 2nd Floor

Saint Paul, MN 55105

651.243.9700

www.interfluve.com

GENERAL NOTES AND SWPPP

SHEET

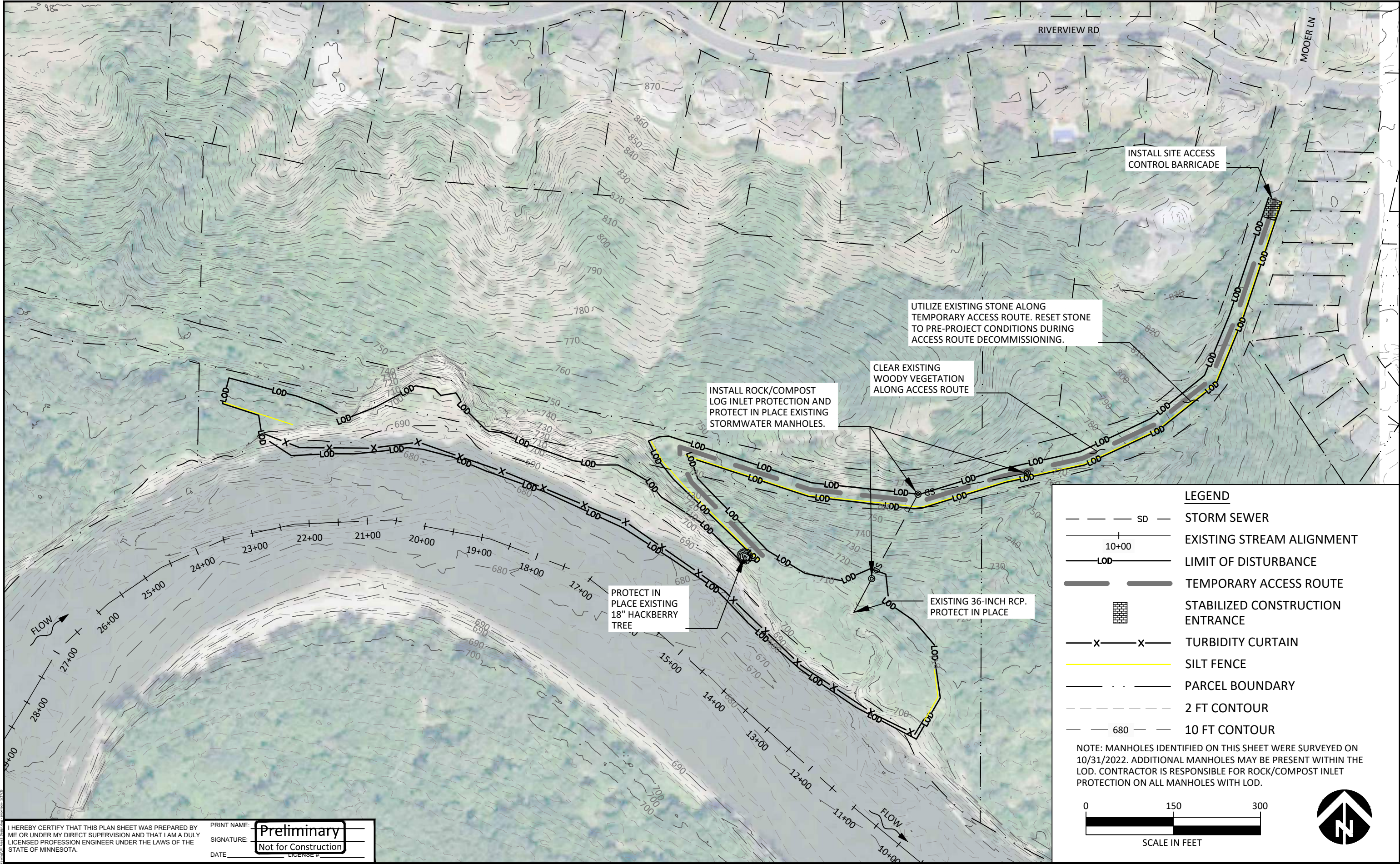
2 OF 17

NO.

BY

DATE

REVISION DESCRIPTION



LEGEND

SD STORM SEWER

10+00 EXISTING STREAM ALIGNMENT

LOD LIMIT OF DISTURBANCE

TEMPORARY ACCESS ROUTE

STABILIZED CONSTRUCTION ENTRANCE

TURBIDITY CURTAIN

SILT FENCE

PARCEL BOUNDARY

2 FT CONTOUR

10 FT CONTOUR

NOTE: MANHOLES IDENTIFIED ON THIS SHEET WERE SURVEYED ON 10/31/2022. ADDITIONAL MANHOLES MAY BE PRESENT WITHIN THE LOD. CONTRACTOR IS RESPONSIBLE FOR ROCK/COMPOST INLET PROTECTION ON ALL MANHOLES WITH LOD.

0 150 300

SCALE IN FEET

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

PRINT NAME: **Preliminary**

SIGNATURE: **Not for Construction**

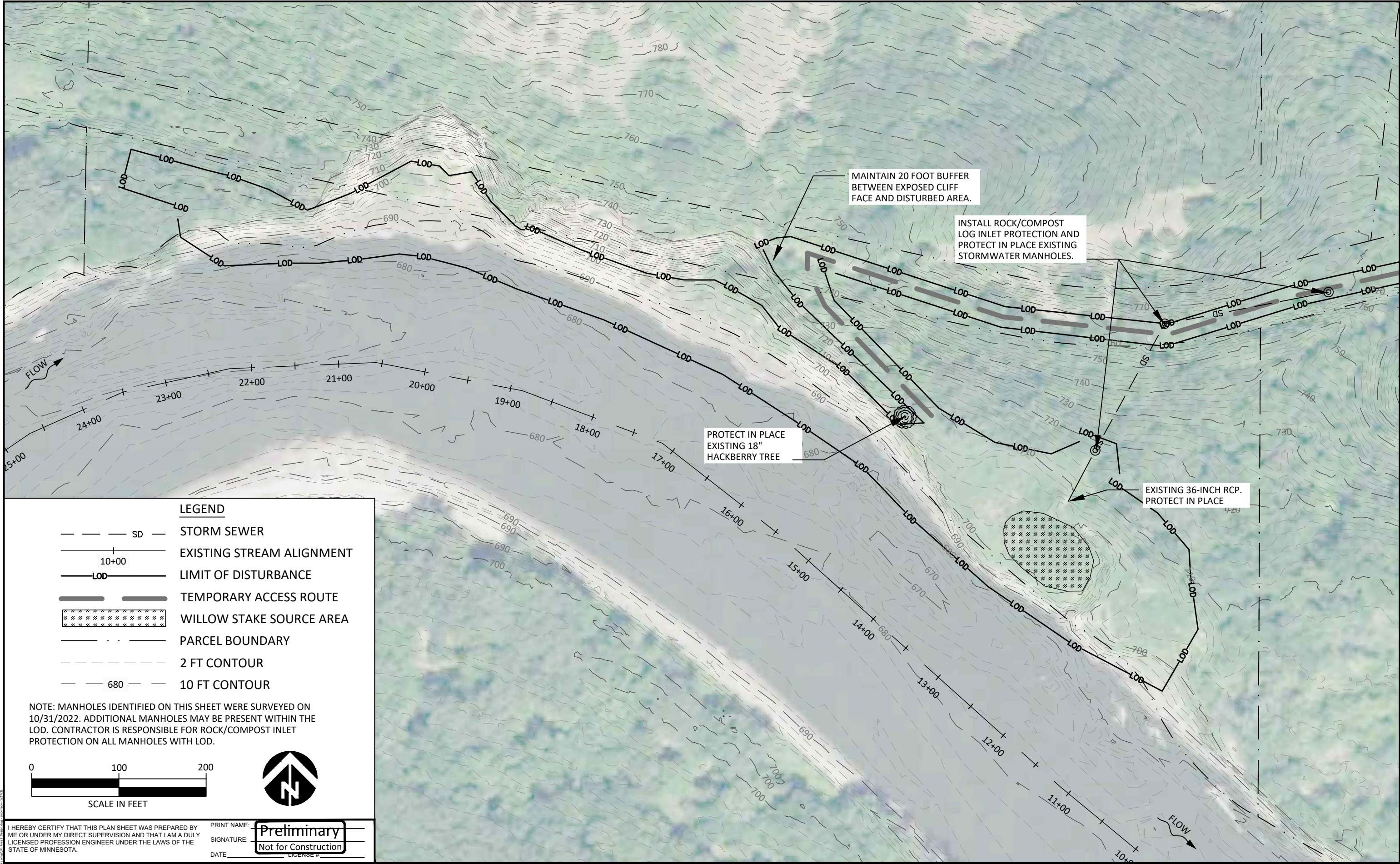
DATE: _____

NO.	BY	DATE	REVISION DESCRIPTION

SM	NJ, MH, BP	MM, DM
DRAWN	DESIGNED	CHECKED
JK	1/27/2023	21-04-21
APPROVED	DATE	PROJECT

MINNESOTA RIVER AREA 3
BLUFF TOE STABILIZATION & STORMWATER POND GRADING
60% DESIGN

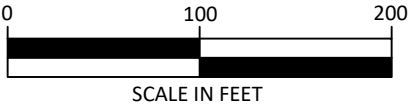
1539 Grand Avenue, 2nd Floor
Saint Paul, MN 55105
651.243.9700
www.interfluve.com



LEGEND

- SD STORM SEWER
- 10+00 EXISTING STREAM ALIGNMENT
- LOD LIMIT OF DISTURBANCE
- TEMPORARY ACCESS ROUTE
- WILLOW STAKE SOURCE AREA
- PARCEL BOUNDARY
- 2 FT CONTOUR
- 680 10 FT CONTOUR

NOTE: MANHOLES IDENTIFIED ON THIS SHEET WERE SURVEYED ON 10/31/2022. ADDITIONAL MANHOLES MAY BE PRESENT WITHIN THE LOD. CONTRACTOR IS RESPONSIBLE FOR ROCK/COMPOST INLET PROTECTION ON ALL MANHOLES WITH LOD.



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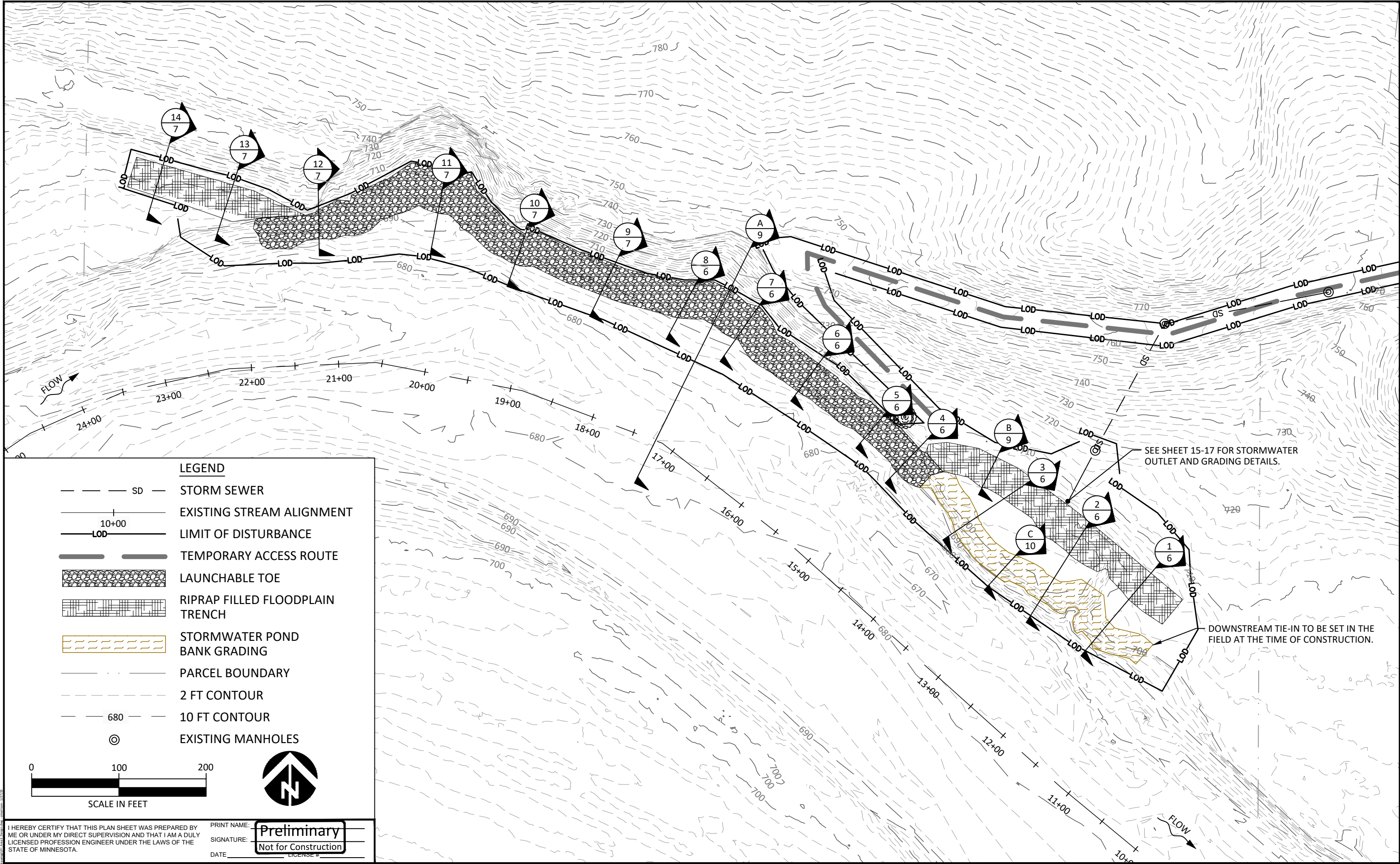
SM	NJ, MH, BP	MM, DM
DRAWN	DESIGNED	CHECKED
JK	1/27/2023	21-04-21
APPROVED	DATE	PROJECT

MINNESOTA RIVER AREA 3
BLUFF TOE STABILIZATION & STORMWATER POND GRADING
60% DESIGN



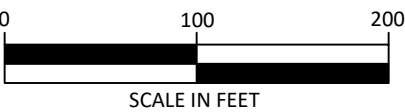
1539 Grand Avenue, 2nd Floor
Saint Paul, MN 55105
651.243.9700
www.interfluve.com

EXISTING CONDITIONS



LEGEND

- SD STORM SEWER
- 10+00 EXISTING STREAM ALIGNMENT
- LOD LIMIT OF DISTURBANCE
- TEMPORARY ACCESS ROUTE
- LAUNCHABLE TOE
- RIPRAP FILLED FLOODPLAIN TRENCH
- STORMWATER POND BANK GRADING
- PARCEL BOUNDARY
- 2 FT CONTOUR
- 680 10 FT CONTOUR
- EXISTING MANHOLES



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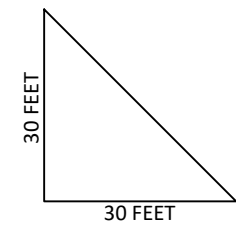
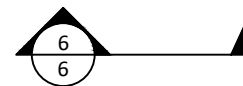
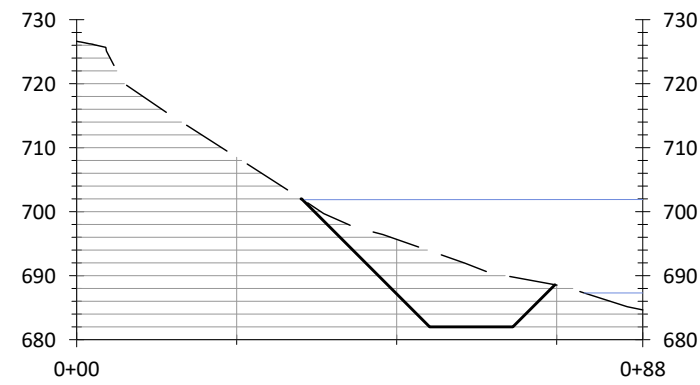
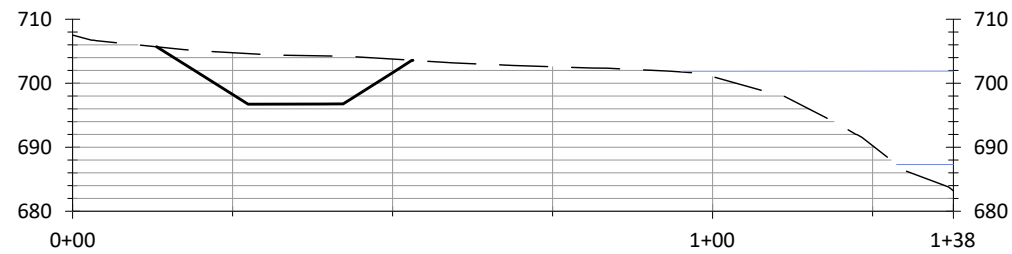
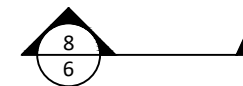
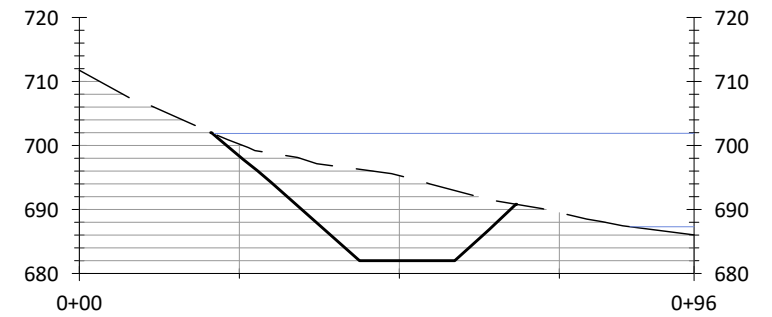
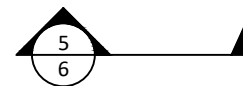
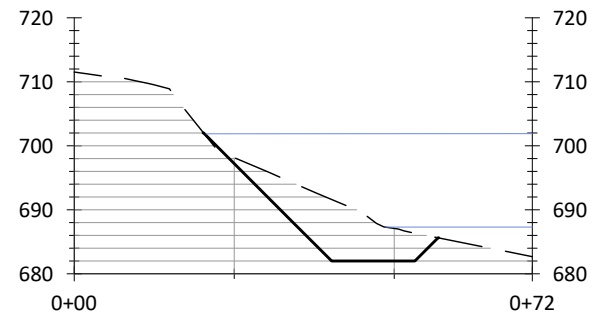
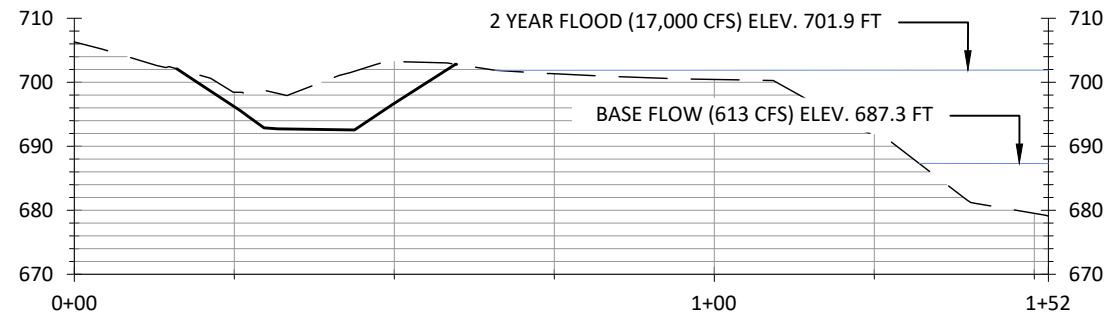
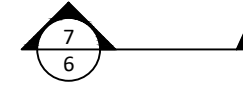
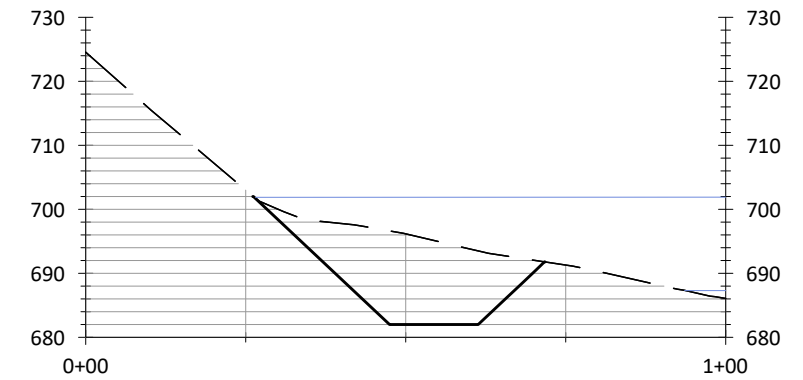
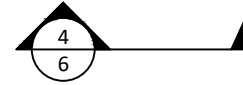
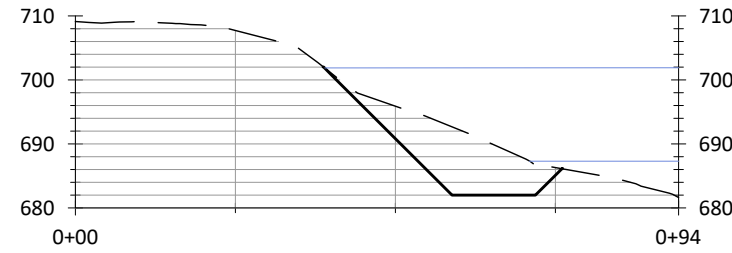
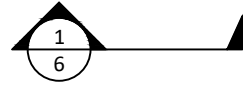
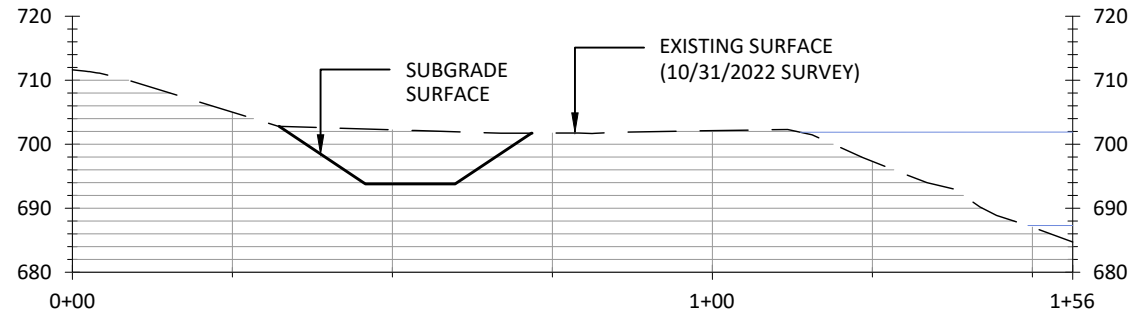
SM DRAWN	NJ, MH, BP DESIGNED	MM, DM CHECKED
JK APPROVED	1/27/2023 DATE	21-04-21 PROJECT

**MINNESOTA RIVER AREA 3
BLUFF TOE STABILIZATION & STORMWATER POND GRADING
60% DESIGN**



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Saint Paul, MN 55105
651.243.9700
www.interfluve.com

**PROPOSED CONDITIONS AND
GRADING**



Minnesota River Area 3 Bluff Toe Stabilization and Stormwater Pond Grading - 1/27/23

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

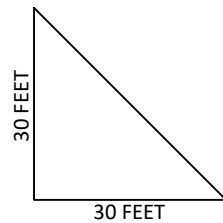
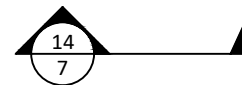
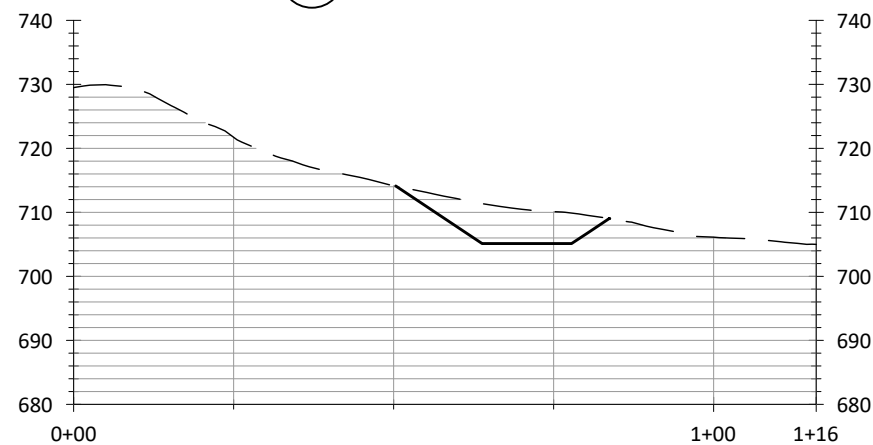
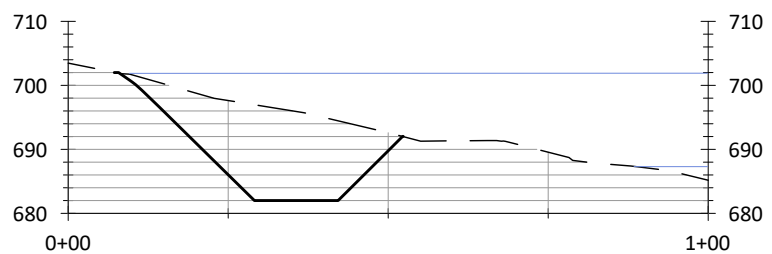
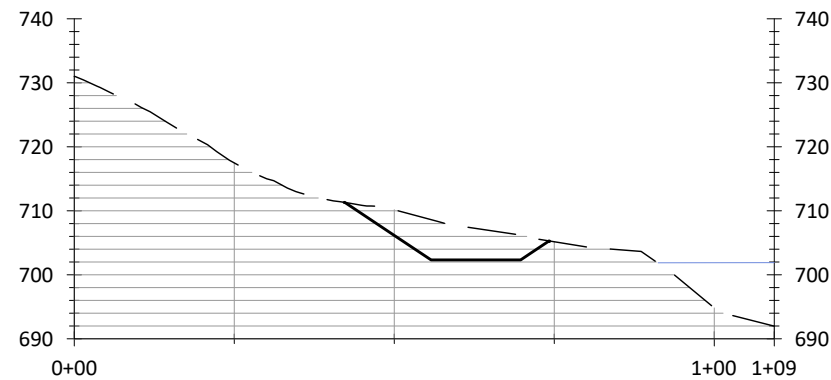
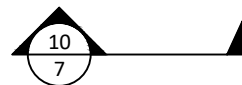
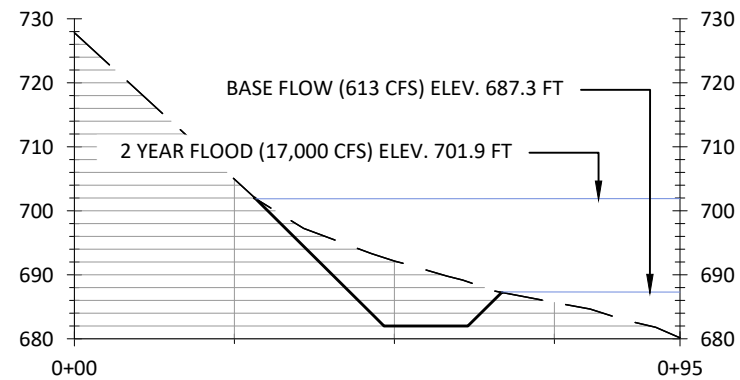
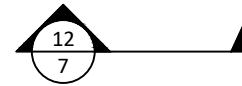
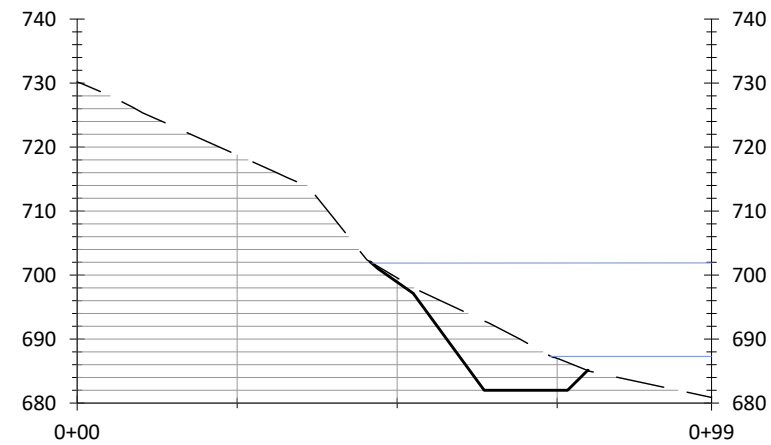
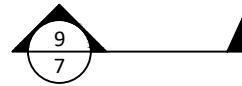
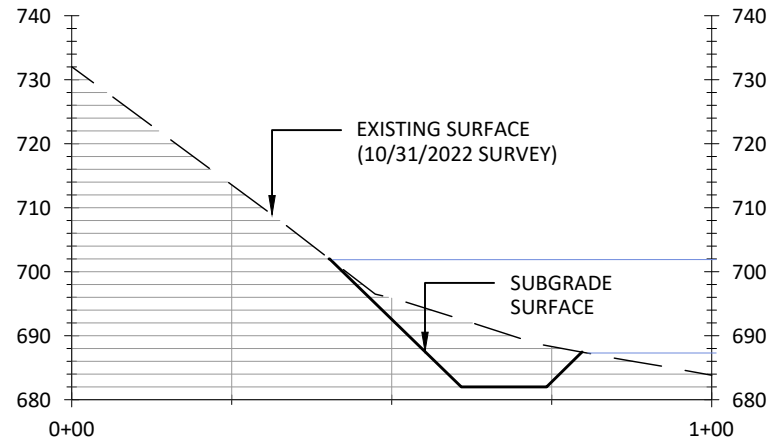
PRINT NAME: **Preliminary**
SIGNATURE: **Not for Construction**
DATE: _____ LICENSE #: _____

				SM	NJ, MH, BP	MM, DM
				DRAWN	DESIGNED	CHECKED
				JK	1/27/2023	21-04-20
NO.	BY	DATE	REVISION DESCRIPTION	APPROVED	DATE	PROJECT

MINNESOTA RIVER AREA 3
BLUFF TOE STABILIZATION & STORMWATER POND GRADING
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Saint Paul, MN 55105
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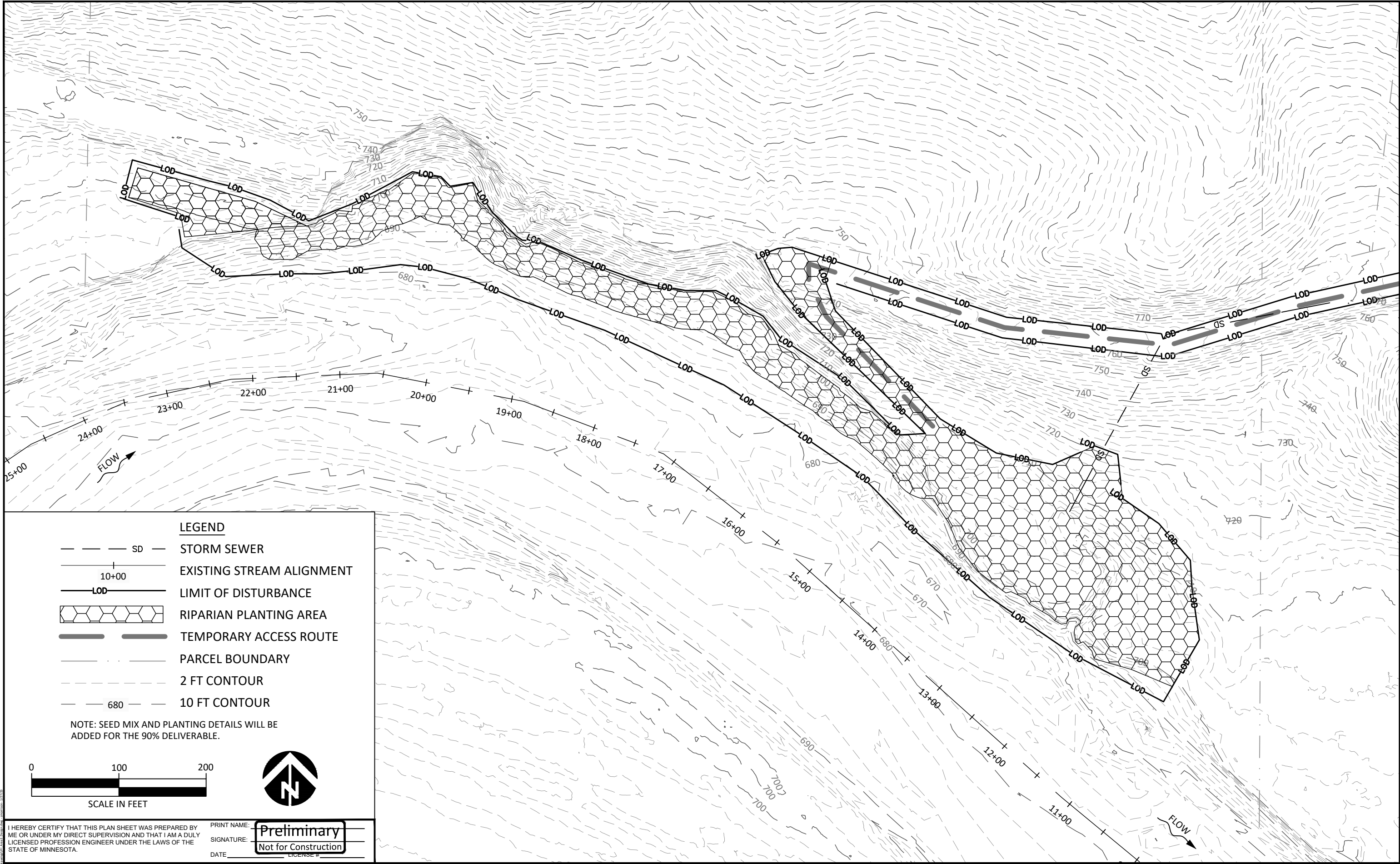
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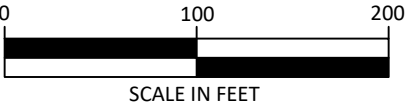
1539 Grand Avenue, 2nd Floor
Saint Paul, MN 55105
651.243.9700
www.interfluve.com



LEGEND

- SD STORM SEWER
- EXISTING STREAM ALIGNMENT
- LOD LIMIT OF DISTURBANCE
- RIPARIAN PLANTING AREA
- TEMPORARY ACCESS ROUTE
- PARCEL BOUNDARY
- 2 FT CONTOUR
- 10 FT CONTOUR

NOTE: SEED MIX AND PLANTING DETAILS WILL BE ADDED FOR THE 90% DELIVERABLE.



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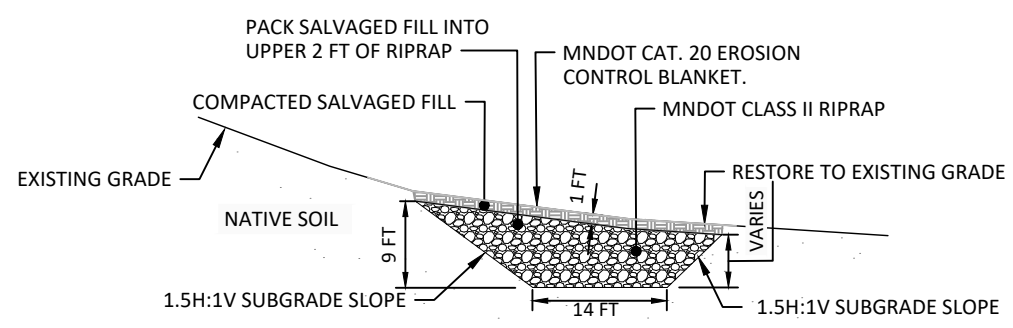
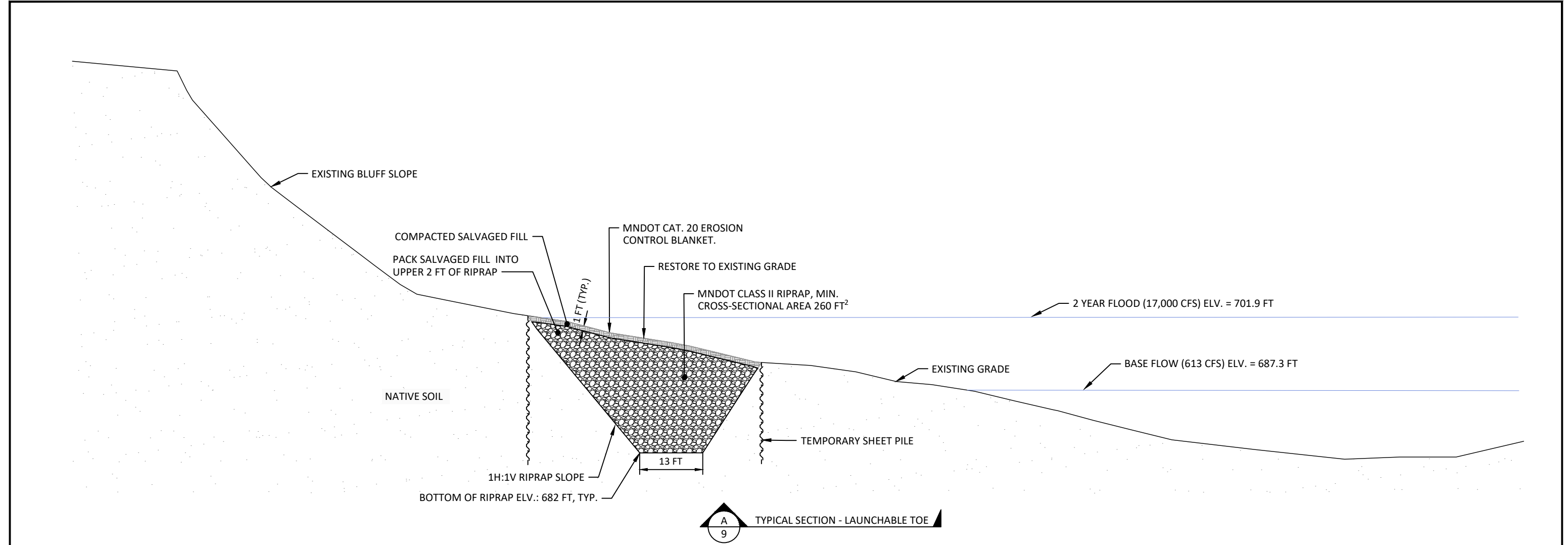
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JK	1/27/2023	21-04-21
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**MINNESOTA RIVER AREA 3
BLUFF TOE STABILIZATION & STORMWATER POND GRADING
60% DESIGN**



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Saint Paul, MN 55105
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REVEGETATION PLAN

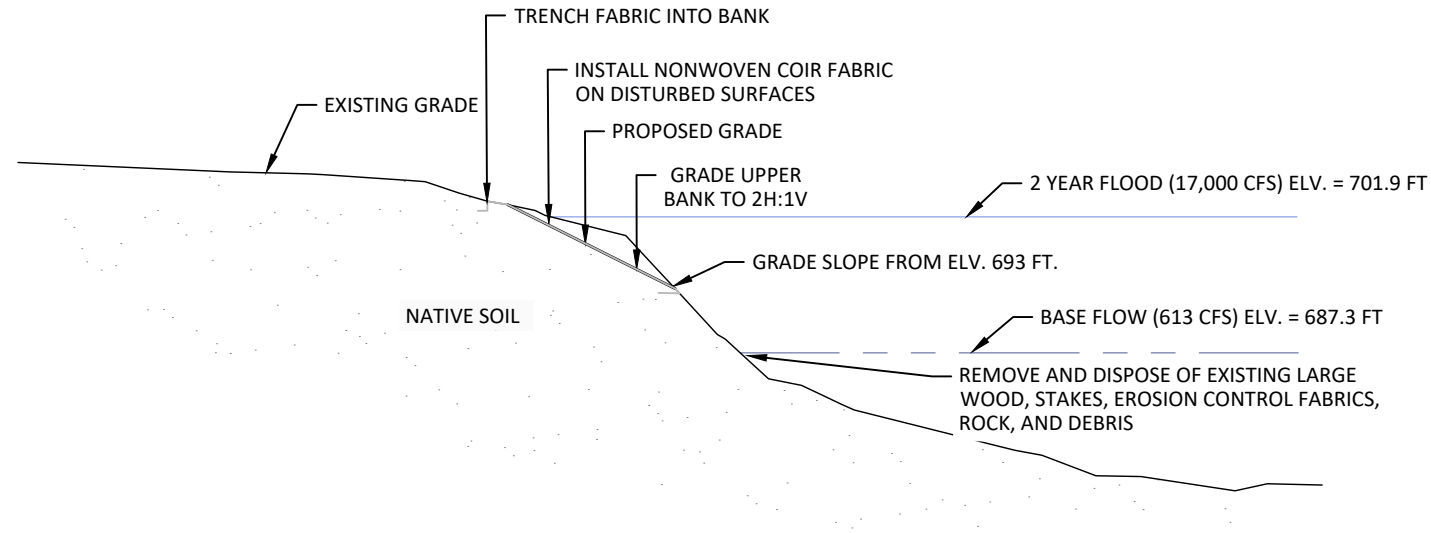


- NOTES:
1. WATER SURFACE ELEVATIONS ARE BASED ON TWO-DIMENSIONAL HYDRAULIC MODELING OF THE PROJECT AREA. WATER SURFACE ELEVATION AT THE TIME OF CONSTRUCTION MAY VARY FROM THOSE SHOW FOR SPECIFIC DISCHARGES.
 2. TEMPORARY SHEET PILING OR TRENCHING SUPPORT STRUCTURES FOR ROCK TRENCHING ARE REQUIRED AND THEIR DESIGN SHALL BE DELEGATED TO THE CONTRACTOR. DESIGN SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.

I HEREBY CERTIFY THAT THIS PLAN SHEET WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.				PRINT NAME: Preliminary		
				SIGNATURE: Not for Construction		
				DATE: _____		
				LICENSE #: _____		
NO.	BY	DATE	REVISION DESCRIPTION	SM DRAWN	NJ, MH, BP DESIGNED	MM, DM CHECKED
				JK APPROVED	1/27/2023 DATE	21-04-21 PROJECT

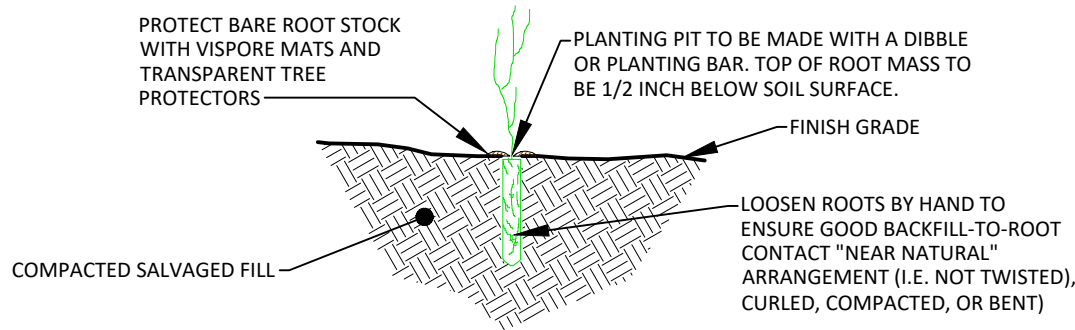
MINNESOTA RIVER AREA 3
BLUFF TOE STABILIZATION & STORMWATER POND GRADING
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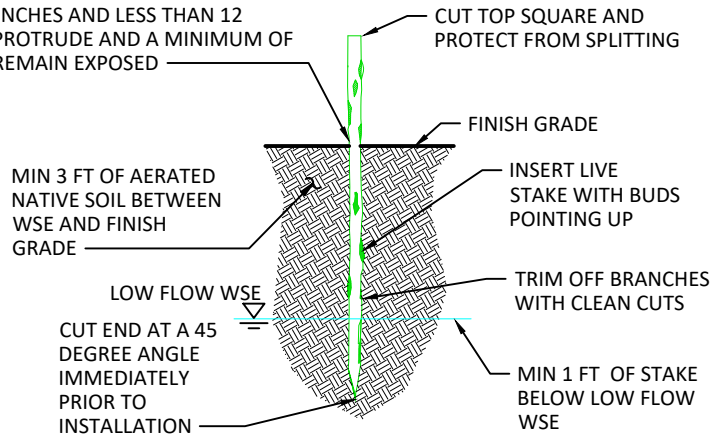
C
10 TYPICAL SECTION - STORMWATER POND BANK GRADING
1"=20' (ON 11"x17" SHEETS)

NOTES:
1. WATER SURFACE ELEVATIONS ARE BASED ON TWO-DIMENSIONAL HYDRAULIC MODELING OF THE PROJECT AREA. WATER SURFACE ELEVATION AT THE TIME OF CONSTRUCTION MAY VARY FROM THOSE SHOW FOR SPECIFIC DISCHARGES.



1
10 BARE ROOT STOCK PLANTINGS
NOT TO SCALE

DRIVE LIVE STAKES 2/3 OF TOTAL LENGTH INTO NATIVE SOIL. TRIM ABOVE GROUND SEGMENT SO THAT MORE THAN 6 INCHES AND LESS THAN 12 INCHES PROTRUDE AND A MINIMUM OF 2 BUDS REMAIN EXPOSED



2
10 LIVE WILLOW STAKE PLANTINGS
NOT TO SCALE

NOTES:
2. NATIVE RIPARIAN PLANT SPECIES TO BE DETERMINED IN 90% DELIVERABLE.

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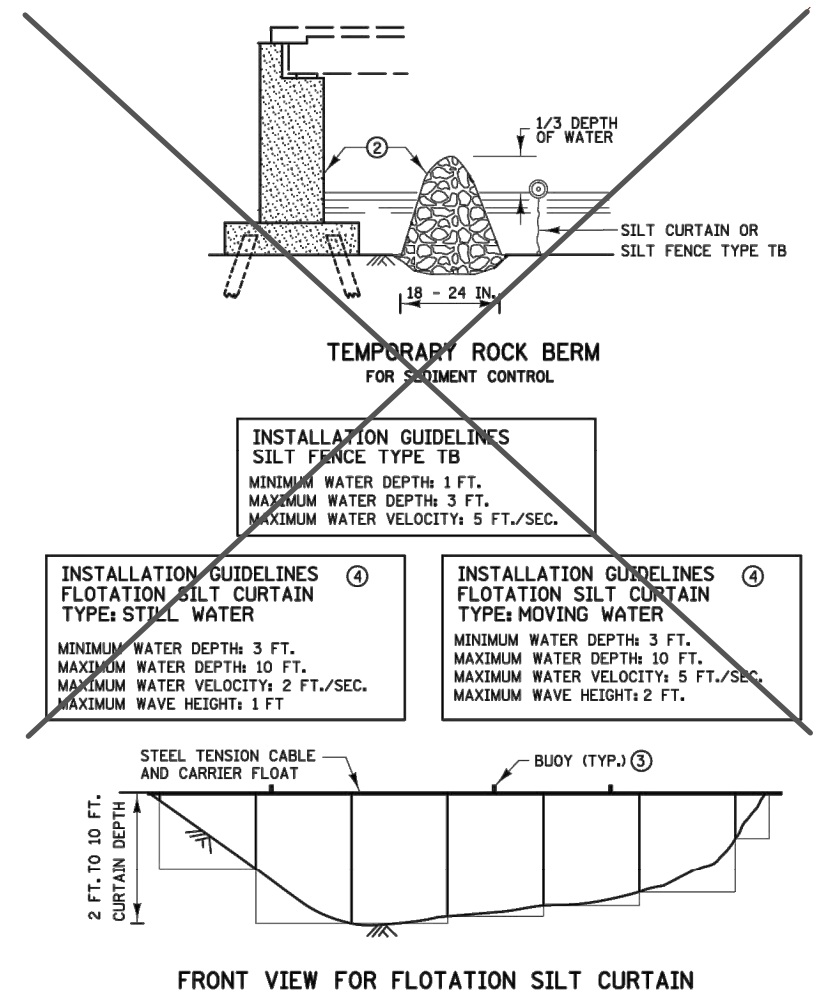
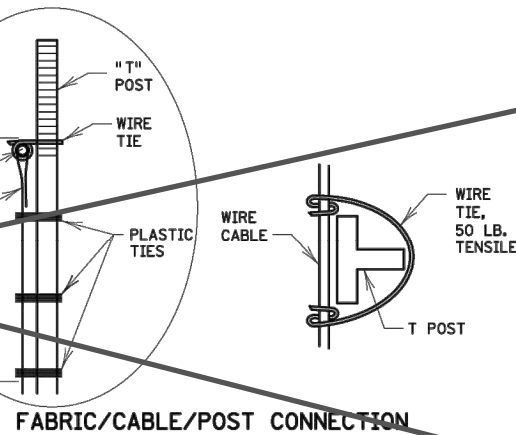
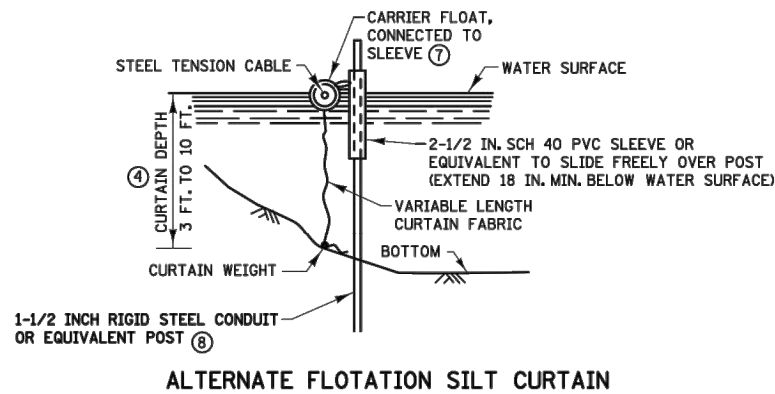
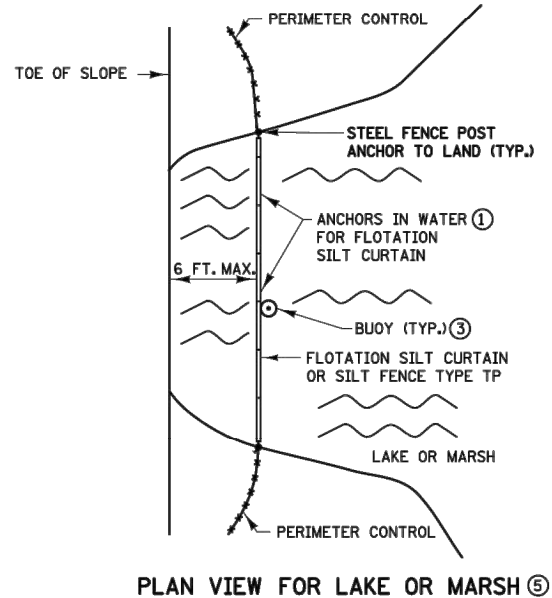
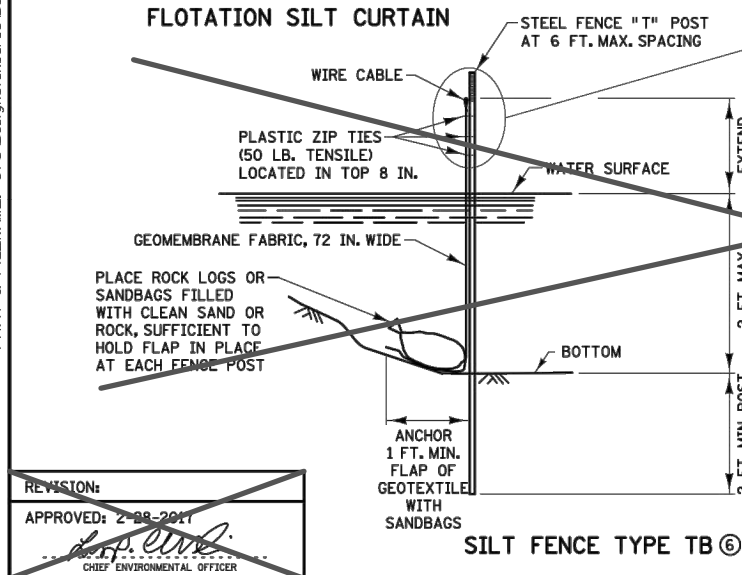
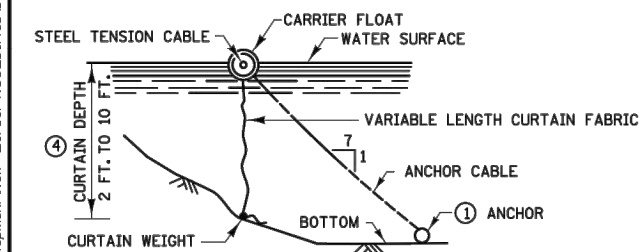
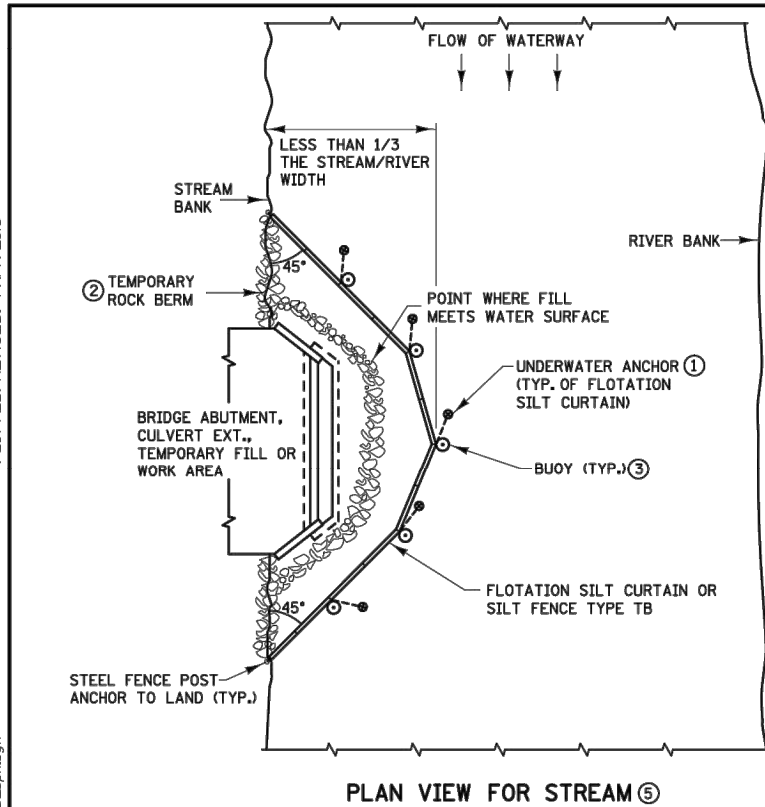
1539 Grand Avenue, 2nd Floor
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651.243.9700
www.interfluve.com

TYPICAL SECTIONS (2 OF 2) AND
DETAILS

SHEET
10 OF 17

PLOTTED/REVISED: 4-APR-2018

IPLOT NAME: s405.J.spn
PATH & FILENAME: QTS\DesignStandards\Development\New Border\400_Series\405.J.spn.dgn



NOTES:

SEE SPECS. 2573, 3886, 3887 & 3893.

- ① FOR ANCHOR SPACING AND WEIGHT REQUIREMENTS, SEE SPEC. 2573.
- ② IN AREAS WHERE THE PLAN CALLS FOR RIPRAP AT A BRIDGE, CULVERT, OR SLOPE, A TEMPORARY ROCK BERM CONSTRUCTED FROM THE RIPRAP CAN BE USED TO PROVIDE ADDITIONAL PROTECTION. WHEN THE WORK IS COMPLETE THE RIPRAP CAN THEN BE MOVED TO THE PERMANENT LOCATION INDICATED IN THE PLANS. THE TEMPORARY ROCK BERM IS INCIDENTAL.
- ③ ON U.S. COAST GUARD OR OTHER MOTORIZED WATERWAYS, BUOYS ARE REQUIRED TO MARK THE ENDS AND SPECIAL AREAS FOR VISIBILITY. PLACE BUOYS AS REQUIRED FOR NAVIGATIONAL PURPOSES.
- ④ MINIMUM WATER DEPTH APPLIES TO THE DEEPEST POINT ALONG THE FLOTATION SILT CURTAIN OR SILT FENCE TYPE TB FOR DETERMINING APPLICABILITY OF FLOTATION SILT CURTAIN OR SILT FENCE TYPE TB.
- ⑤ SILT CURTAIN SHOULD BE REMOVED WHEN THE AREA CONTRIBUTING DIRECT RUNOFF HAS BEEN TEMPORARILY OR PERMANENTLY STABILIZED. SILT CURTAIN SHOULD ALSO BE REMOVED BEFORE WINTER IF ICE UP OR ICE FLOW IS ANTICIPATED.
- ⑥ EMBED POST INTO BOTTOM A MINIMUM OF 40% OF THE WATER DEPTH (INCLUDING WAVE HEIGHT), BUT IN NO CASE SHALL EMBEDMENT BE LESS THAN 2 FEET.
- ⑦ ANCHOR FLOAT MUST BE CONNECTED SECURELY TO SLEEVE WITH A MINIMUM TENSILE STRENGTH OF 100 LBS. CONNECTION METHOD MUST ALLOW FOR SLEEVE TO MOVE FREELY ON POST.
- ⑧ PROVIDE SUFFICIENT NUMBER OF POST ANCHORS TO MAINTAIN SILT CURTAIN POSITION.

REVISION:
APPROVED: 2-28-2011
CHIEF ENVIRONMENTAL OFFICER



STANDARD PLAN 5-203.405 1 OF 8
APPROVED: 2-28-2011
REVISOR:
STATE DESIGN ENGINEER
STATE PROJ. NO.

TEMPORARY SEDIMENT CONTROL SILT CURTAIN OR SILT FENCE TYPE TB

(T.H.) SHEET NO. OF SHEETS

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

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APPROVED	DATE	PROJECT

MINNESOTA RIVER AREA 3
BLUFF TOE STABILIZATION & STORMWATER POND GRADING
60% DESIGN

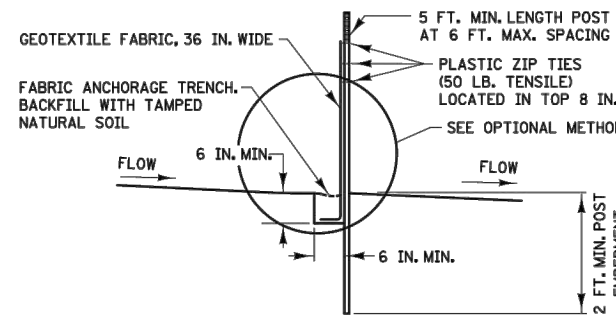
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1539 Grand Avenue, 2nd Floor
Saint Paul, MN 55105
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EROSION CONTROL DETAILS
(1 OF 4)

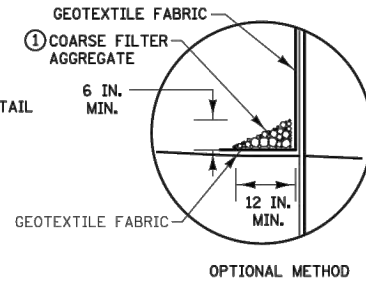
SHEET
11 OF 17

PLOTTED/REVISED: 4-APR-2018

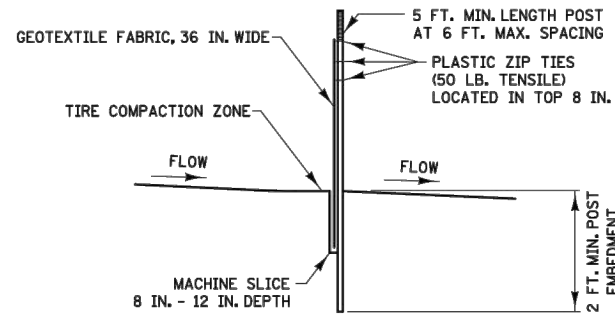
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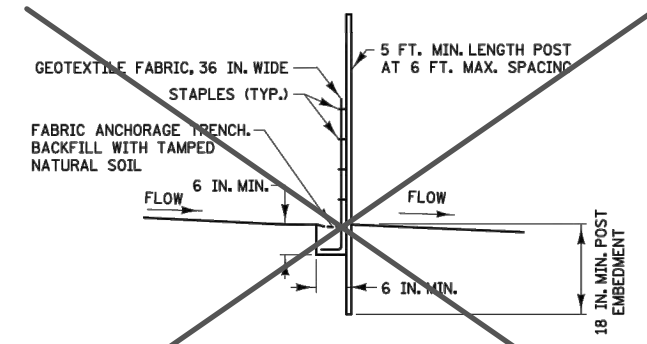
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(HAND INSTALLED)



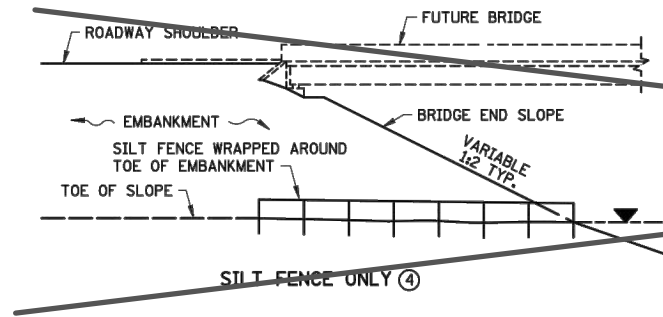
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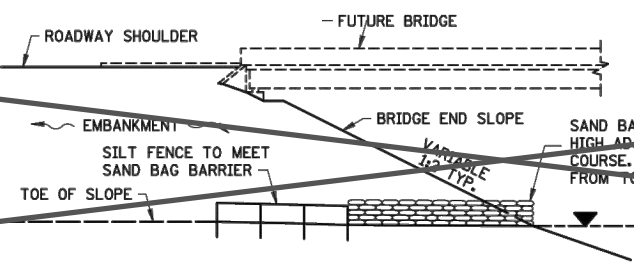
SILT FENCE TYPE MS ②
(MACHINE SLICED)



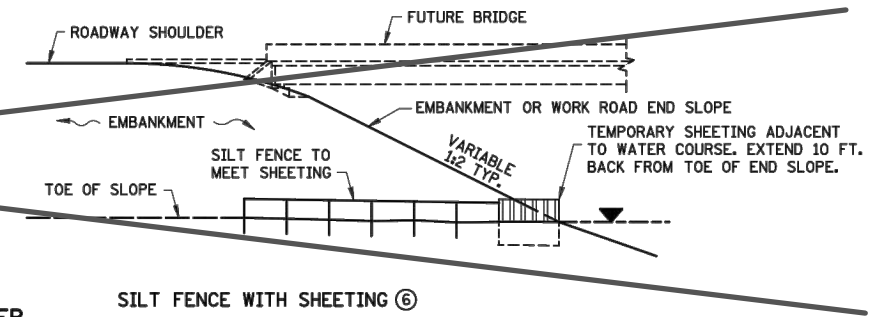
SILT FENCE TYPE PA ③
(PREASSEMBLED)



SILT FENCE ONLY ④

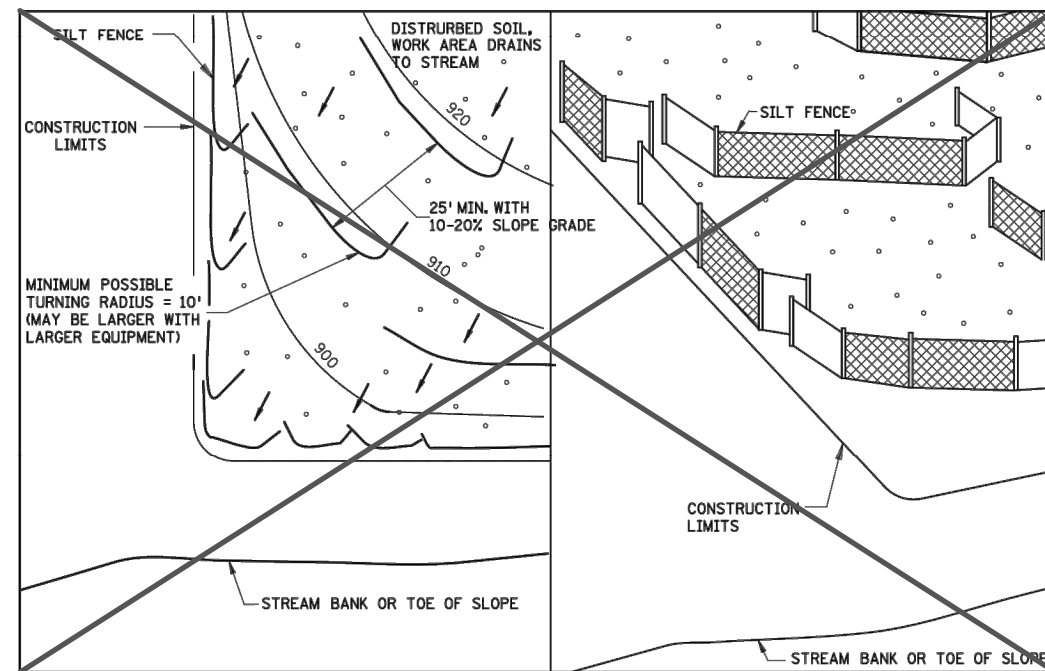


SILT FENCE WITH SAND BAGS ⑤



SILT FENCE WITH SHEETING ⑥

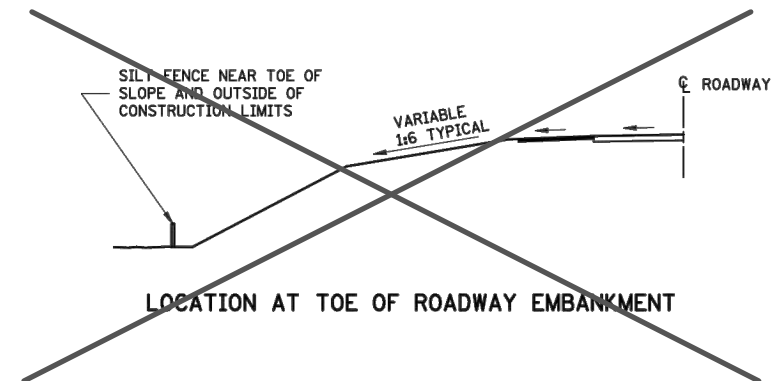
INSTALLATION AT BRIDGE EMBANKMENT ADJACENT TO WATER



PLAN VIEW

J-HOOK INSTALLATION

PERSPECTIVE VIEW



LOCATION AT TOE OF ROADWAY EMBANKMENT

NOTES:

- SEE SPECS. 2573, 3149 & 3886.
- ① COARSE FILTER AGGREGATE (SPEC. 3149) SHALL BE INCIDENTAL.
- ② TO PROTECT AREAS FROM SHEET FLOW, MAXIMUM CONTRIBUTING AREA: 1 ACRE.
- ③ TO PROTECT AREAS FROM SHEET FLOW, MAXIMUM CONTRIBUTING AREA: 0.25 ACRE.
- ④ WATER COURSE FLOW VELOCITY: STANDING. CONTRIBUTING SLOPE AREA: 1/2 ACRE.
- ⑤ WATER COURSE FLOW VELOCITY: 1 TO 7 FT./SEC. CONTRIBUTING SLOPE AREA: 1 ACRE.
- ⑥ WATER COURSE FLOW VELOCITY: 8 TO 15 FT./SEC. CONTRIBUTING SLOPE AREA: 3 ACRES.

REVISION:

APPROVED: 2-28-2017

CHIEF ENVIRONMENTAL OFFICER



STANDARD PLAN 5-203.405 6 OF 8

APPROVED: 2-28-2017

REVISOR:

STATE PROJ. NO.

TEMPORARY SEDIMENT CONTROL

SILT FENCE

(T.H.) SHEET NO. OF SHEETS

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

PRINT NAME: Preliminary

SIGNATURE: Not for Construction

DATE: LICENSE #

NO.	BY	DATE	REVISION DESCRIPTION

SM	NJ, MH, BP	MM, DM
DRAWN	DESIGNED	CHECKED
JK	1/27/2023	21-04-21
APPROVED	DATE	PROJECT

MINNESOTA RIVER AREA 3
BLUFF TOE STABILIZATION & STORMWATER POND GRADING
60% DESIGN

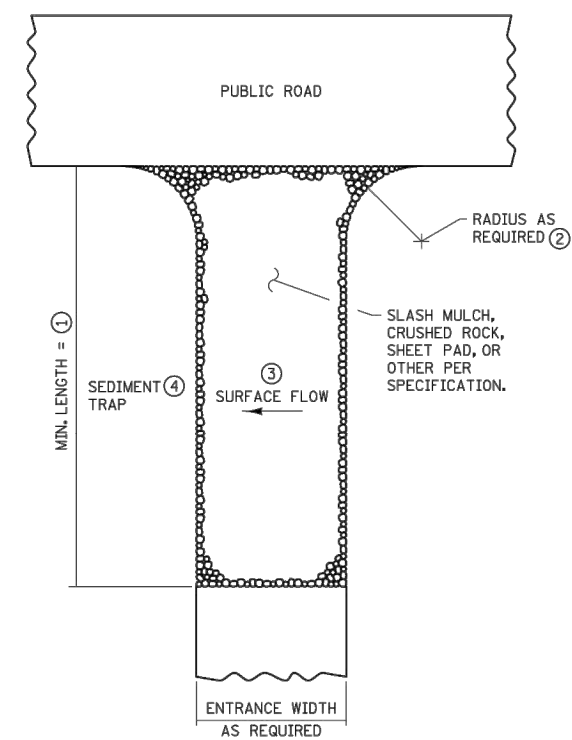


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651.243.9700
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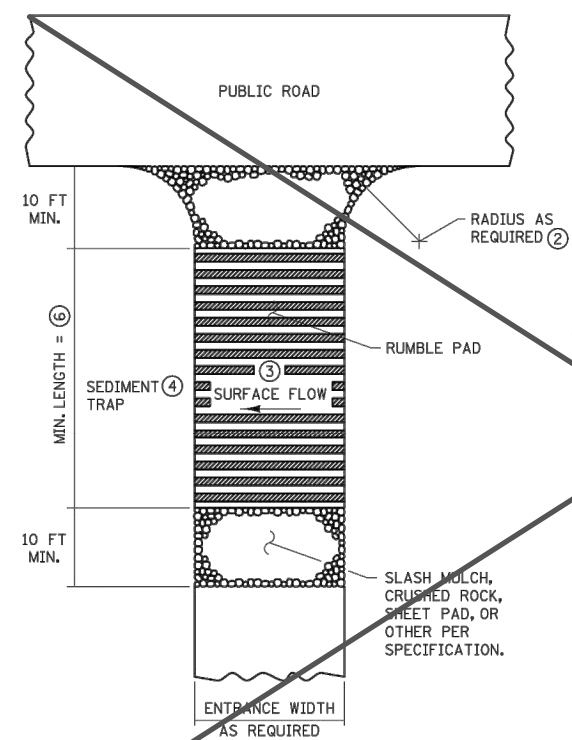
EROSION CONTROL DETAILS
(2 OF 4)

SHEET
12 OF 17

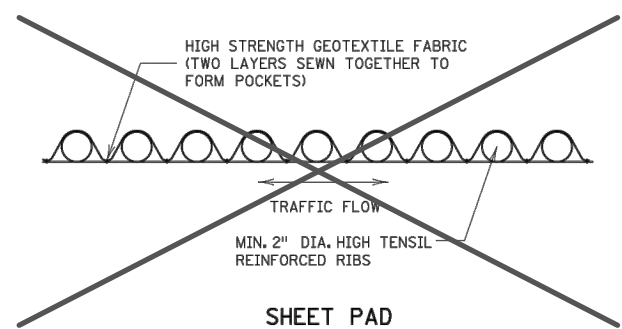
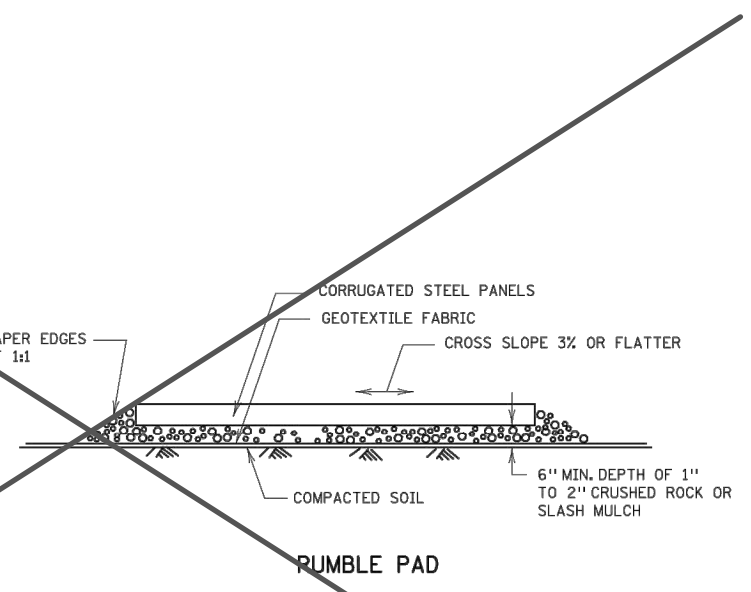
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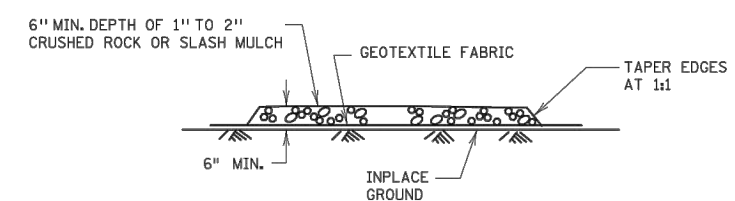
SLASH MULCH, CRUSHED ROCK, OR SHEET PAD CONSTRUCTION EXIT 5⑦



RUMBLE PAD CONSTRUCTION EXIT 5⑦



SHEET PAD



SLASH MULCH OR CRUSHED ROCK

- NOTES:**
SEE SPECS. 2573 & 3882.
- ① MINIMUM LENGTH SHALL BE THE GREATER OF 50 FEET OR A LENGTH SUFFICIENT TO ALLOW A MINIMUM OF 5 TIRE ROTATIONS ON THE PROVIDED PAD. MINIMUM LENGTH SHALL BE CALCULATED USING THE LARGEST TIRE WHICH WILL BE USED IN TYPICAL OPERATIONS.
 - ② PROVIDE RADIUS OR WIDEN PAD SUFFICIENTLY TO PREVENT VEHICLE TIRES FROM TRACKING OFF OF PAD WHEN LEAVING SITE.
 - ③ IF RUNOFF FROM DISTURBED AREAS FLOWS TOWARD CONSTRUCTION EXITS, PREVENT RUNOFF FROM DRAINING DIRECTLY TO PUBLIC ROAD OVER CONSTRUCTION EXIT BY CROWNING THE EXIT OR SLOPING TO ONE SIDE. IF SURFACE GRADING IS INSUFFICIENT, PROVIDE OTHER MEANS OF INTERCEPTING RUNOFF.
 - ④ IF RUNOFF FROM CONSTRUCTION EXITS WILL DRAIN OFF OF PROJECT SITE, PROVIDE SEDIMENT TRAP WITH STABILIZED OVERFLOW.
 - ⑤ IF A TIRE WASH OFF IS REQUIRED THE CONSTRUCTION EXITS SHALL BE GRADED TO DRAIN THE WASH WATER TO A SEDIMENT TRAP.
 - ⑥ MINIMUM LENGTH OF RUMBLE PAD SHALL BE 20 FEET, OR AS REQUIRED TO REMOVE SEDIMENT FROM TIRES. IF SIGNIFICANT SEDIMENT IS TRACKED FROM THE SITE, THE RUMBLE PAD SHALL BE LENGTHENED OR THE DESIGN MODIFIED TO PROVIDE ADDITIONAL VIBRATION. WASH-OFF LENGTH SHALL BE AS REQUIRED TO EFFECTIVELY REMOVE CONSTRUCTION SEDIMENT FROM VEHICLE TIRES.
 - ⑦ MAINTENANCE OF CONSTRUCTION EXITS SHALL OCCUR WHEN THE EFFECTIVENESS OF SEDIMENT REMOVAL HAS BEEN REDUCED. MAINTENANCE SHALL CONSIST OF REMOVING SEDIMENT AND CLEANING THE MATERIALS OR PLACING ADDITIONAL MATERIAL (SLASH MULCH OR CRUSHED ROCK) OVER SEDIMENT FILLED MATERIAL TO RESTORE EFFECTIVENESS.

REVISION:
APPROVED: 2-28-2017
[Signature]
CHIEF ENVIRONMENTAL OFFICER

	STANDARD PLAN 5-201.005	5 OF 8	TEMPORARY SEDIMENT CONTROL	
	APPROVED: 2-28-2017 [Signature] STATE DESIGN ENGINEER		STABILIZED CONSTRUCTION EXIT	
STATE PROJ. NO.		(T.H.)	SHEET NO.	OF SHEETS

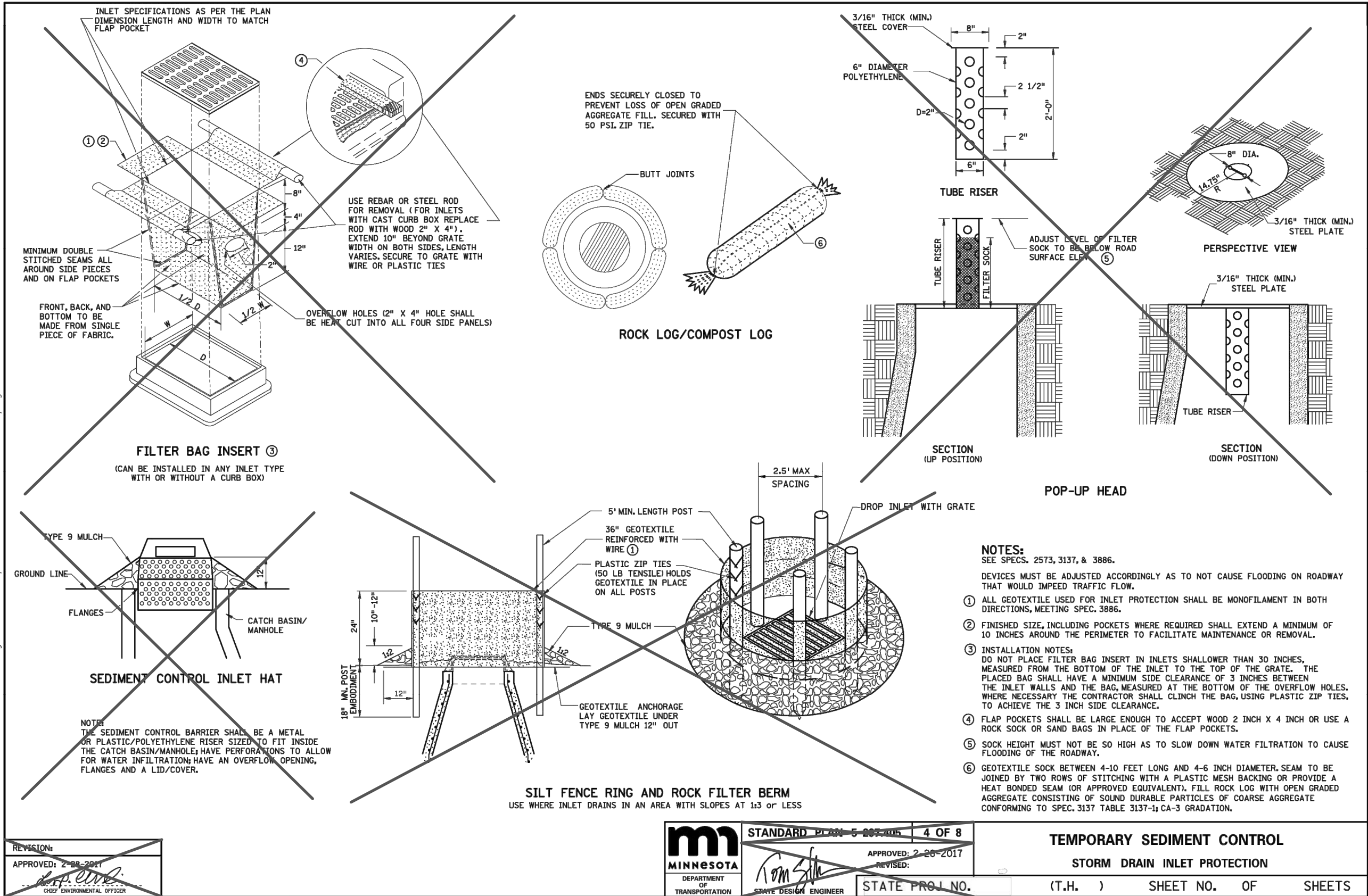
I HEREBY CERTIFY THAT THIS PLAN SHEET WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.				PRINT NAME: Preliminary
				SIGNATURE: [Signature]
				DATE: 1/27/2023
				LICENSE #:
NO.	BY	DATE	REVISION DESCRIPTION	
	SM	NJ, MH, BP	MM, DM	
	DRAWN	DESIGNED	CHECKED	
	JK	1/27/2023	21-04-21	
	APPROVED	DATE	PROJECT	

MINNESOTA RIVER AREA 3
BLUFF TOE STABILIZATION & STORMWATER POND GRADING
60% DESIGN

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Saint Paul, MN 55105
651.243.9700
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PLOTTED/REVISED: 4-APR-2018

IPLOT NAME: s405_4.sgn
PATH & FILENAME: OTS\DesignStandards\Development\New Border\400_Series\405_4_spr.dgn



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JK	1/27/2023	21-04-21
APPROVED	DATE	PROJECT

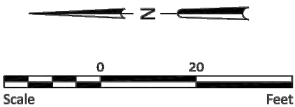
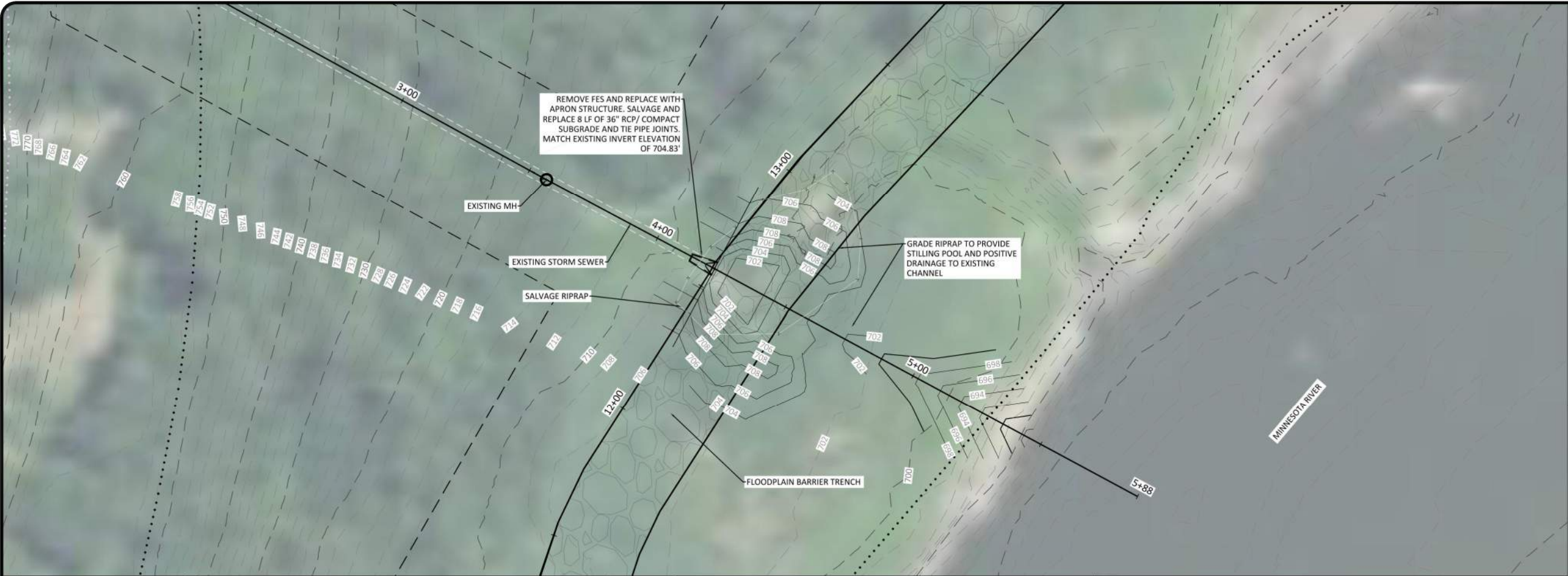
MINNESOTA RIVER AREA 3
BLUFF TOE STABILIZATION & STORMWATER POND GRADING
60% DESIGN



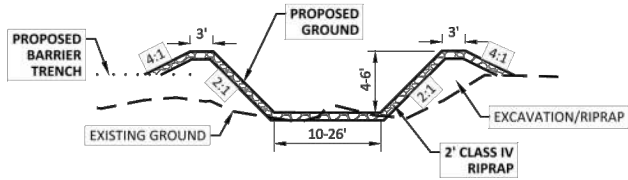
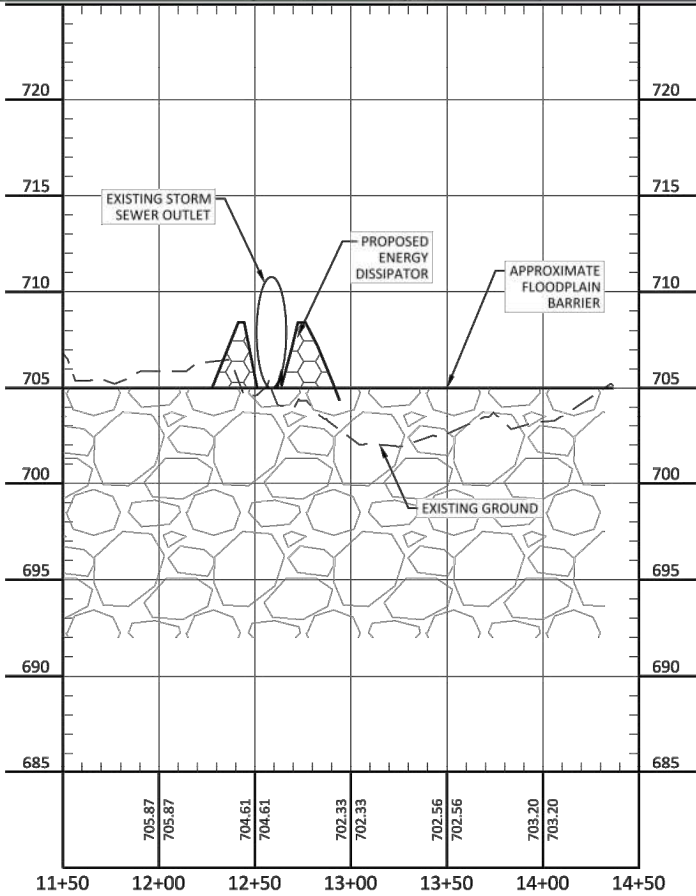
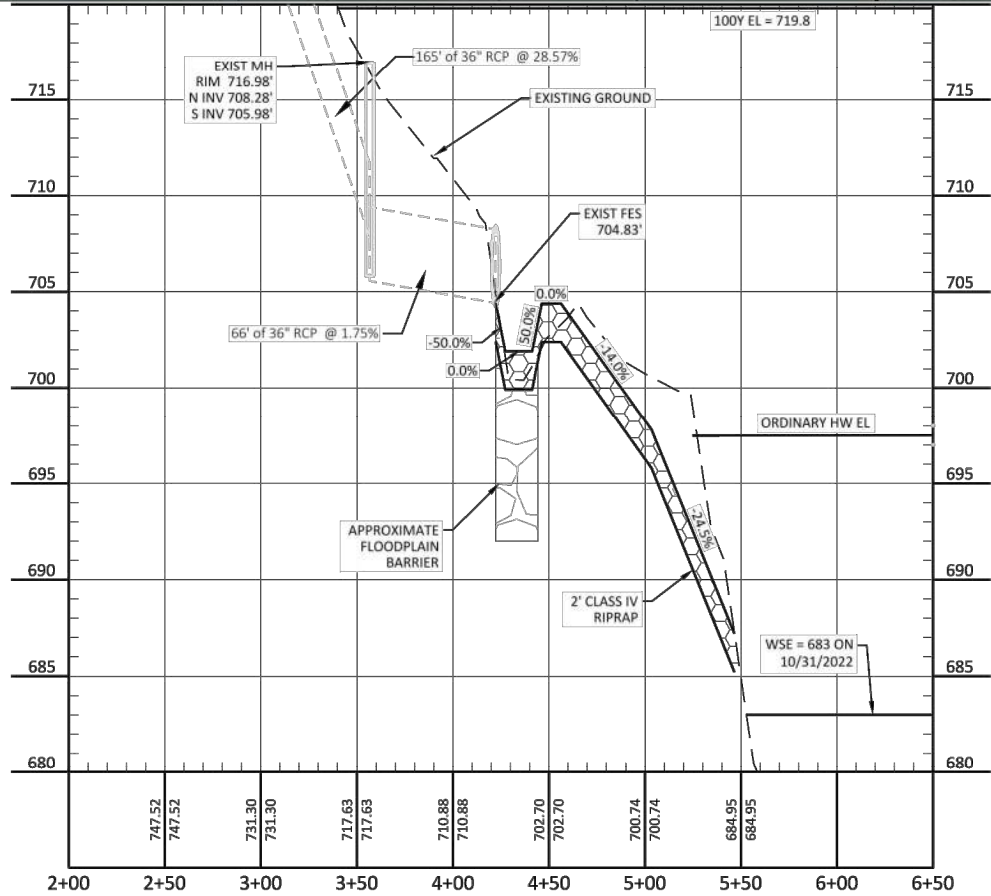
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EROSION CONTROL DETAILS
(4 OF 4)

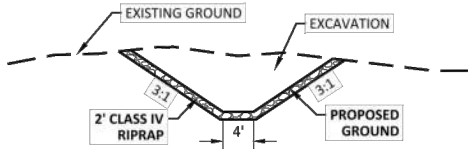
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14 OF 17



..... PARCEL BOUNDARY
--- EASEMENT



RIPRAP SECTION STA 4+22 TO 4+56
NOT TO SCALE



TYPICAL CHANNEL STA 4+56 TO 5+46
NOT TO SCALE

PRELIMINARY
NOT FOR CONSTRUCTION



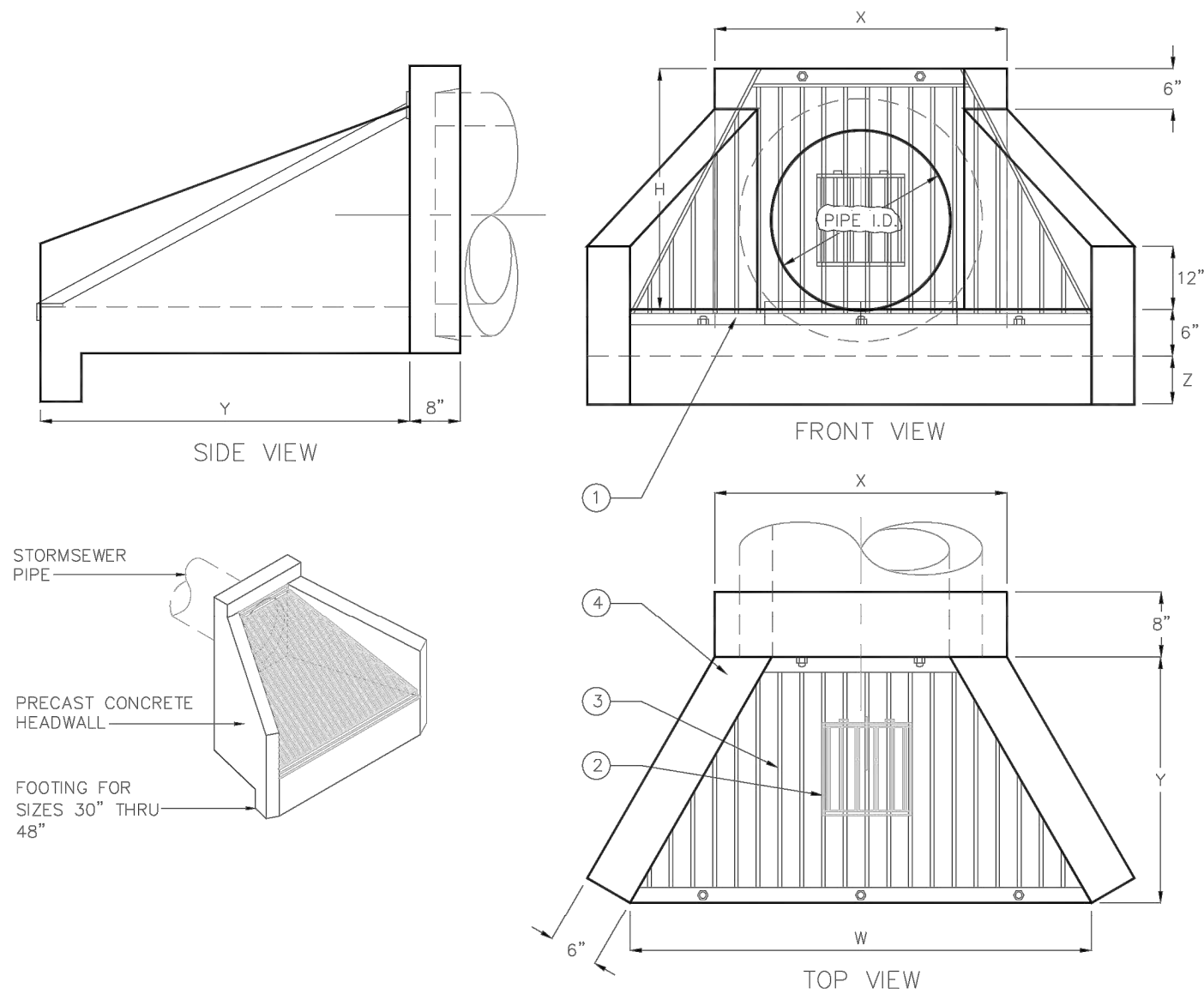
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1-25-2023
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PM
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MINNESOTA RIVER AREA 3
OUTLET STABILIZATION
EDEN PRAIRE, MN

STORMWATER OUTLET
PLAN AND PROFILE
PROJECT NO. 10974-0002

SHEET

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MODEL	PIPE DIA	DIMENSIONS					WEIGHT (LBS)
		H	W	X	Y	Z	
DSA-12	12"	2'-6"	4'-3"	3'-0"	2'-0"	-	2,700
DSA-15	15"	2'-6"	4'-3"	3'-0"	2'-0"	-	2,700
DSA-18	18"	2'-6"	4'-3"	3'-0"	2'-0"	-	2,600
DSA-21	21"	3'-0"	5'-10"	3'-2"	3'-0"	-	4,300
DSA-24	24"	3'-0"	5'-10"	3'-2"	3'-0"	-	4,200
DSA-30	30"	3'-6"	7'-6"	4'-1"	4'-0"	9"	6,200
DSA-36	36"	4'-1"	9'-3"	4'-8"	5'-0"	9"	8,100
DSA-42	42"	4'-11"	12'-6"	5'-10"	6'-0"	12"	11,000
DSA-48	48"	4'-11"	12'-6"	5'-10"	6'-0"	12"	11,000



SPECIFICATIONS

CONCRETE : Class I/II concrete with of design strength of 4500 PSI at 28 days. Unit is of monolithic construction including walls and floor.

REINFORCEMENT: Grade 60 reinforced. No. 4 steel rebar to conform to ASTM A615 on required centers or equal. Bar bending and placement shall with the latest ACI standards.

GRATING: All steel fabrication shall be in accordance to AWA D1.1. Steel shall be ASTM A36 carbon steel, and hot-dipped galvanized after fabrication in accordance to ASTM A123

KEYED NOTES		
MARK	QTY	DESCRIPTION
1	1	1-1/2" X 1/4" GALVANIZED ANGLE BOLTED TO CONCRETE WITH 1/2" ANCHOR BOLTS
2	1	12"x12" HINGED CLEAN OUT GRATE
3	1	GALVANIZED STEEL DEBRIS GRATE, 1-1/2" X 3/16" BARS @ 2" O.C. 1" CLEAR OPENING
4	1	DRAINAGE EXIT STRUCTURE MFG: PARK USA 888-611-PARK WWW.PARKUSA.COM MODEL: DSA-1 DATE MANUFACTURED:

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No.	Revision	Date	By

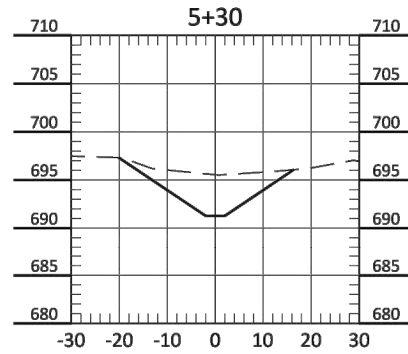
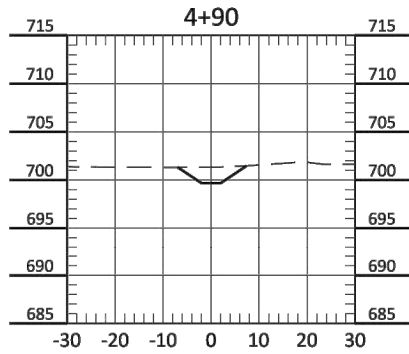
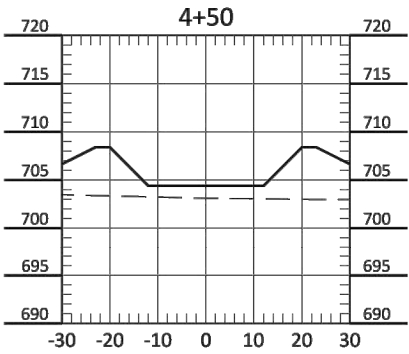
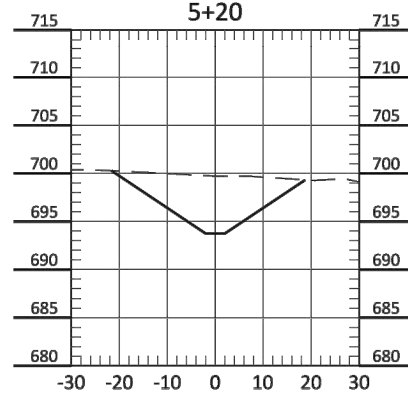
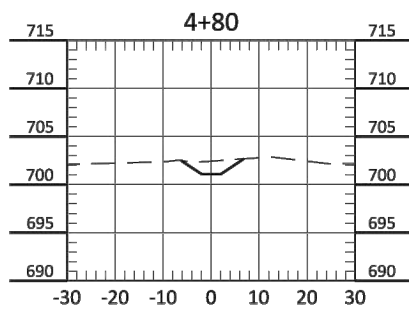
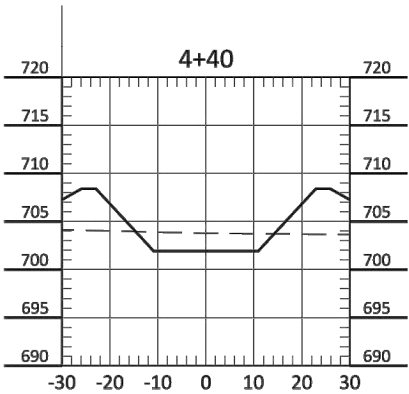
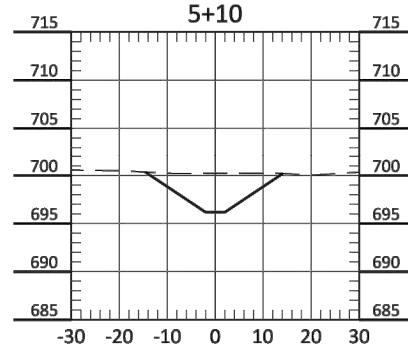
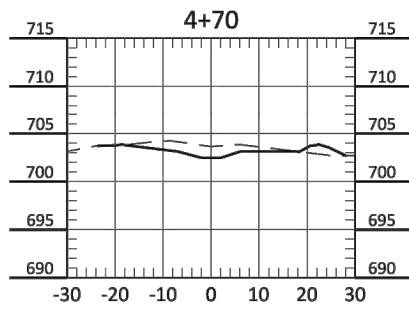
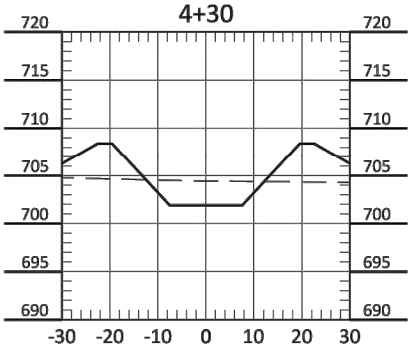
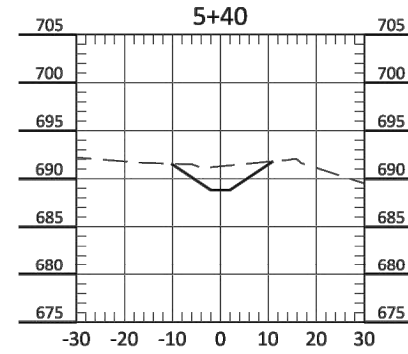
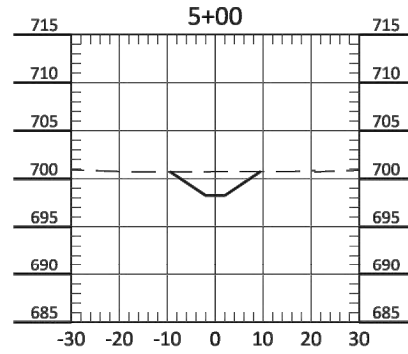
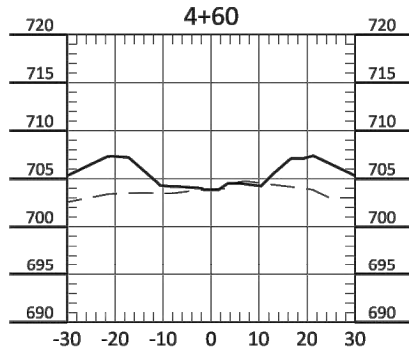
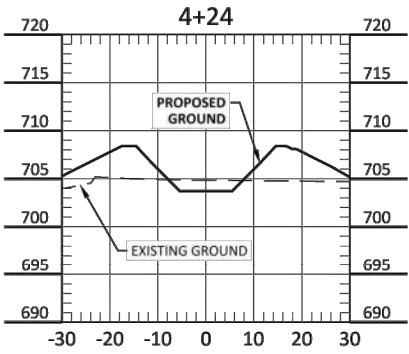


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Checked by PM	Scale AS SHOWN

MINNESOTA RIVER AREA 3 OUTLET STABILIZATION EDEN PRAIRE, MN

APRON STRUCTURE DETAIL PROJECT NO. 10974-0002

SHEET ----



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No.	Revision	Date	By



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Date
1-25-23

Scale
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MINNESOTA RIVER AREA 3
OUTLET STABILIZATION
EDEN PRAIRE, MN

CROSS SECTIONS
PROJECT NO. 10974-0002

SHEET

Appendix C - Engineer's Opinion of Probable Construction Costs

Minnesota River Area 3
60% Design Budgetary Opinion of Probable Construction Cost
January 2023

	General					
Item #	Item	Unit	Quantity	Unit Cost	Line Item Total	Notes
1	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	1	\$377,000	\$377,000	Assumed 12% of items 4 and higher, assumed one mobilization for all project components
2	SITE ACCESS AND STAGING	LUMP SUM	1	\$157,000	\$157,000	Assumed 5% of items 4 and higher, assumed stormwater feature reconstruction is in the same general vicinity
3	AS-BUILT SURVEY	LUMP SUM	1	\$15,000	\$15,000	RTK survey of final grade
				SUBTOTAL	\$549,000	
Launchable Rock Toe at Area 3						
Item #	Item	Unit	Quantity	Unit Cost	Line Item Total	Notes
4	CONTROL OF WATER	LUMP SUM	1	\$182,140	\$182,140	Assumed 8% of other construction items, assumes localized dewatering and turbidity curtain.
5	EROSION AND SEDIMENT CONTROL	LUMP SUM	1	\$20,000	\$20,000	
6	REMOVE AND DISPOSE OF EXISTING STORMWATER POND DEBRIS	LUMP SUM	1	\$10,000	\$10,000	
7	SHEETPILE	LUMP SUM	1	\$650,000	\$650,000	
8	MNDOT CLASS II RIPRAP	CY	12,600	\$100	\$1,260,000	Assumes no filter gravel is required.
9	EARTHWORK CUT	CY	16,400	\$12	\$196,800	Includes excavation required for bluff toe launchable rock toe, trenched rock in floodplain, and stormwater pond bank grading.
10	PLACE AND COMPACT SALVAGED FILL	CY	4,200	\$9	\$37,800	Salvaged fill placed over trenched rock. Topsoil salvage and respread in floodplain rock trench areas is incidental.
11	HAUL AND OFFSITE DISPOSAL OF CLEAN FILL	CY	12,200	\$60	\$732,000	Portion not included as fill over riprap trenches.
12	F&I NONWOVEN COIR FABRIC	SY	1,200	\$6	\$7,200	Installed in Stormwater Pond Grading areas.
13	F&I MNDOT CATEGORY 20 EROSION CONTROL BLANKET	SY	7,000	\$2	\$14,000	Installed in Floodplain Trench and Bluff Toe Area.
14	NATIVE RIPARIAN SEED MIX	ACRE	3.0	\$8,000	\$24,000	Includes all treatment areas.
15	WILLOW LIVE STAKES	EACH	320	\$10	\$3,200	Assumes 10 foot O.C. planting on floodplain trench and stormwater pond grading areas.
16	BARE ROOT STOCK	EACH	60	\$30	\$1,800	Assumes one row of 15 foot O.C. planting on floodplain trench and stormwater pond grading areas.
				SUBTOTAL	\$3,138,940	

Rounded Combined Subtotal	\$3,688,000
Contingency 25%	\$922,000
ROUNDED ESTIMATED TOTAL	\$4,600,000
AACE Class 2 Low Range (-15%)	\$3,900,000
AACE Class 2 High Range (+20%)	\$5,500,000

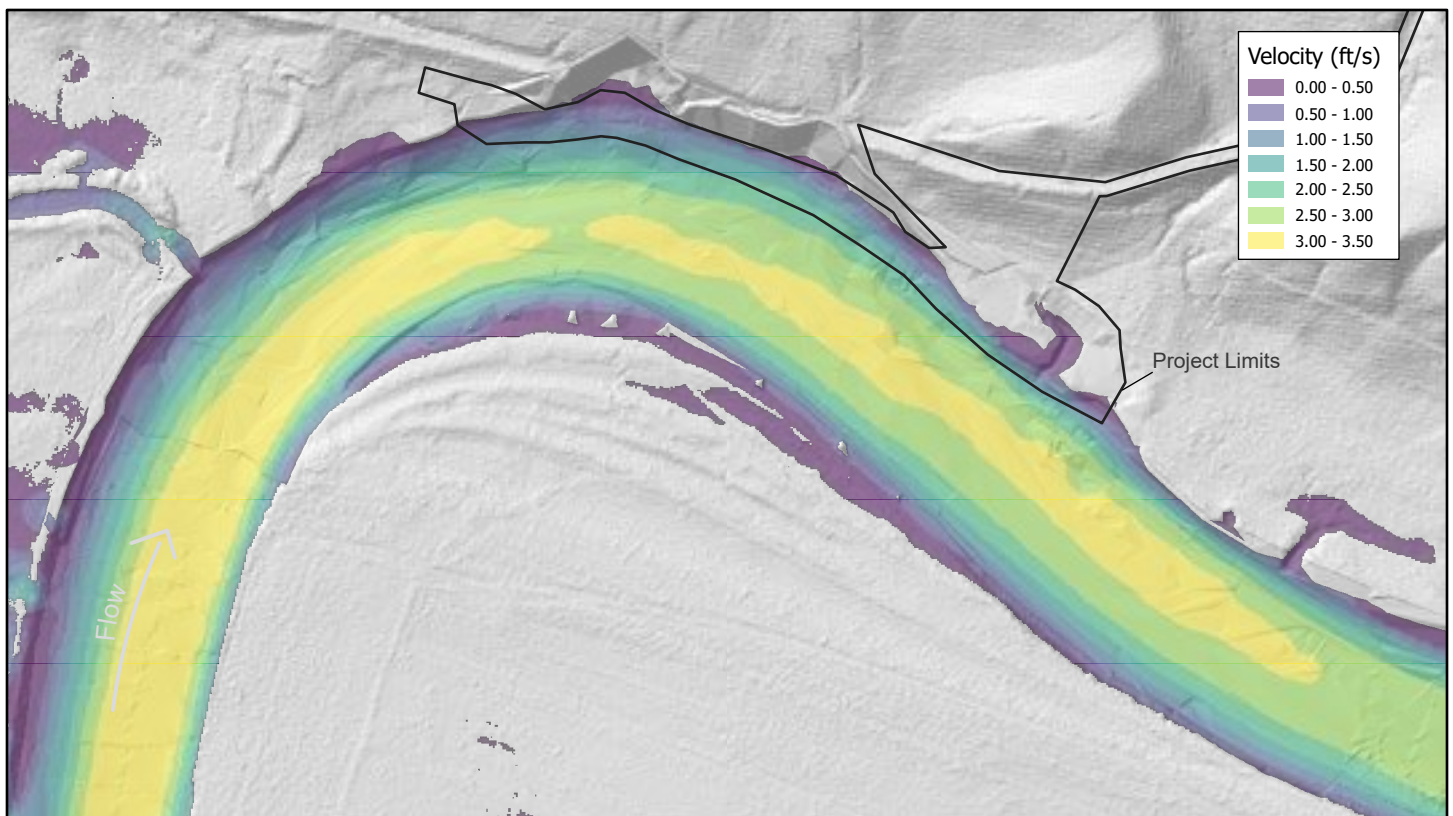
Appendix D - Permitting Matrix

Area 3 Permit Matrix

#	Permit	Agency	Submittal Needs	Predecessor Task	Permit Lead/ Representative	Hyperlink to Permit Application	Review Timeline	Permit Fee	Notes
1	Section 10 of Safe Rivers and Harbors Act	USACE	Section 10 of the Rivers and Harbors Act of 1899 requires authorization from the Secretary of the Army, acting through the Corps of Engineers, for the construction of any structure in or over any navigable water of the United States. Structures or work outside the limits defined for navigable waters of the United States require a Section 10 permit if the structure or work affects the course, location, or condition of the water body. The law applies to any dredging or disposal of dredged materials, excavation, filling, rechannelization, or any other modification of a navigable water of the United States, and applies to all structures, from the smallest floating dock to the largest commercial undertaking.	30% Plans	Young Environmental Consulting Group	https://www.spl.usace.army.mil/Missions/Regulatory/Jurisdictional-Determination/Section-10-of-the-Rivers-Harbors-Act/#:::text=Section%2010%20of%20the%20Rivers%20and%20Harbors%20Act,over%20any%20navigable%20water%20of%20the%20United%20States.			Discuss with USACE permitting representative once alternative has been selected and design is underway. USCG may defer to USACE for some navigable channel work.
2	Nationwide Permit 13/ Individual Permit	USACE	<ul style="list-style-type: none">• Permit Application Form• Volume of fill• Wetland surface area impacted• Copy of plans• Compliance with related laws including Endangered Species Act, Clean Water Act, and National Historic Preservation Act must submit a pre-construction notificaion to the district engineer prior to commencing activity	60% Plans	Young Environmental Consulting Group	https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Obtain-a-Permit/Submit through MPARS	45-90 days (estimated)		Permit will be a function of the proposed project. The Nationwide 13 permit for Bank Stabilization requires less than 500 ft of bank stabilization, and less than 1 CY of fill per foot of bank treatment. Discuss with USACE permitting representative once alternative has been selected and design is underway.
3	Joint Application (WCA/CWA)	USACE	<ul style="list-style-type: none">•Joint Permit Application form (https://bwrs.state.mn.us/sites/default/files/2019-01/Wetland_WCA_MN_joint_appl_form.pdf)•MPARS permit may satisfy parts 1 and 2 of this permit, and sometimes parts 3 and 4. Just attach copy	60% Plans	Young Environmental Consulting Group	https://www.nwp.usace.army.mil/Missions/Regulatory/Apply.aspx	45 - 60 days (estimated)		<ul style="list-style-type: none">•Applicants are strongly encouraged to seek input from the Corps PM and LGU staff to identify regulatory issues and required application materials for their proposed project. Project proponents can request a pre-application consultation with the Corps and LGU to discuss the proposed project
4	Project Review by State Historic Preservation Office & Tribal Historic Preservation Office Review	MN SHPO/THPO	<ul style="list-style-type: none">• Request for Project Review form: https://mn.gov/admin/assets/R-C_Form_SIMPLE_1_tcm36-327668.pdf• Online submittal accepted during "Stay Safe MN" order to: ENReviewSHPO@state.mn.us• Followed by mailed submittal• Include TRS/project boundary	60% Plans	Young Environmental Consulting Group	https://mn.gov/admin/shpo/environmental-review/submit/	30-day minimum (plan to take 45-60 days because of COVID)		<ul style="list-style-type: none">•MnDNR Contact: Mike Magner mike.magner@state.mn.us (He might only be available for DNR funded projects...not sure)•Federal agencies must work with the SHPO to address historic preservation issues when planning projects or issuing funds or permits that may affect historic properties and archaeological resources listed in or determined eligible for the National Register of Historic Places.•To request shapefile with archaeological sites/historic properties within project area, send TRS or shapefile of project boundary
5	Natural Heritage Information System Review	MnDNR	<ul style="list-style-type: none">•Fill out NHIS Data Request Form and submit to Melissa•map of project boundary/area of interest (topo or aerial preferred)•provide GIS shapefile of project boundary•TRS•Project description and impact on surrounding area	60% Plans	Young Environmental Consulting Group	https://www.dnr.state.mn.us/nhnrp/nhis.html	3 - 4 week turnaround	minimum charge of \$90 and increaes based on the time it takes to process the request	<ul style="list-style-type: none">•Contact: Melissa Collins melissa.collins@state.mn.us 651-259-5755•We could do a preliminary review of impacts using available online information first if we want? Like the Rare Species Guide, MBS Site Native Plant Communities, MBS Site Biodiversity Significance Ranks....etc.•They will respond with an impact letter that can be used in any public environemntal review document•https://files.dnr.state.mn.us/eco/nhnrp/natural_heritage_data.pdf•https://files.dnr.state.mn.us/eco/nhnrp/nhis_data_request.pdf
6	Wetland Review Application/Wetland Determination Application	City of Eden Prairie	<ul style="list-style-type: none">• Application form (https://www.edenprairie.org/home/showpublisheddocument?id=695)•Joint Permit Application (USACE)• Copy of plans• Map of soil sampling and transect locations• Hennepin County Soil Survey Map• National Wetlands Inventory Map• MN DNR Protected Waters Inventory Map	60% Plans	Young Environmental Consulting Group	https://edenprairie.wufoo.com/forms/mz7s0hh072ez4o/	Follows USACE timeline		<ul style="list-style-type: none">•City of Eden Prairie suggested LMRWD to schedule Technical Evaluation Panel (TEP) meeting once an alternative has been selected and design is underway.•https://www.edenprairie.org/community/sustainable-eden-prairie/water/lakes-streams-and-wetlands/wetlands-and-ponds
7	EAW	RGU	https://www.eqb.state.mn.us/content/eaw-process	60% Plans	Young Environmental Consulting Group	https://www.revisor.mn.gov/rules/4410.4300/			EAW could be required based on - 4410.4300 subp. 27. B. - subp. 36a.
8	EA	RGU	NEPA applies whenever a proposed activity of action: - is proposed on federal lands - requiries passage across federal lands - is to be funded - either entirely or in part - by the federal government - affects the air or water quality that is regulated by federal law	60% Plans	Young Environmental Consulting Group	https://www.fws.gov/node/266179#:~:text=The%20EA%20may%20provide%20the,requires%20preparation%20of%20an%20EA.			

#	Permit	Agency	Submittal Needs	Predecessor Task	Permit Lead/ Representative	Hyperlink to Permit Application	Review Timeline	Permit Fee	Notes
9	Public Waters Work Permit	MnDNR	<ul style="list-style-type: none">• Contact Area hydrologist to determine if permit is needed•if needed use MPARS site	90% Plans	Young Environmental Consulting Group	https://www.dnr.state.mn.us/mpars/index.html	90 - 120 days		<p>Permit will be a function of the proposed project, but may fall under the general permit category, especially if the project can be classified as an Emergency Repair of Public Flood Damages and Bank/Shore Protection/Restoration. Discuss with DNR Area Hydrologist once alternative has been selected and design is underway: North Metro - Wes Saunders-Pearce ws.saunders-pearce@state.mn.us (651) 259-5822, South Metro - Taylor Huinker taylor.huinker@state.mn.us (651) 259-5790</p> <p>Permit not required if the project is approved by the DNR staff and is designed or reviewed by the local SWCD or local WD, design does not interfere with navigation or other riparian uses, does not interfere with fish spawning times, native species used, aquatic plant management is used, encroachment is minimum, and maintenance plan is submitted to departments area fisheries office.</p> <p>Other requirements for riprap installation given on DNR permit website and I'm sure the area hydrologist would share with us as well</p>
10	No-Rise	FEMA	<ul style="list-style-type: none">• No Rise Documentation• 1-D Hydraulic Model	90% Plans	Young Environmental Consulting Group	https://files.dnr.state.mn.us/waters/watermgmt_section/floodplain/MN_No-Rise_Cert_040204.pdf	N/A		<ul style="list-style-type: none">•Subject to local reviewer•https://www.dnr.state.mn.us/waters/watermgmt_section/floodplain/regulations.html
11	Land Alteration/ Grading Permit	City of Eden Prairie	<ul style="list-style-type: none">• Full size copy of plans• Floodplain analysis with 1-D model• Specifications• Stormwater Management Report• Executed copy of contract documents• Project schedule and sequence of construction• Copies of all applicable permits• Copy of Storm Water Pollution Prevention Plan	90% Plans	Young Environmental Consulting Group	https://www.edenprairie.org/city-government/departments/public-works/public-works-forms/land-alteration-permit	2-3 weeks		<ul style="list-style-type: none">•City of Eden Prairie suggested LMRWD to schedule Technical Evaluation Panel (TEP) meeting once an alternative has been selected and design is underway. Send floodplain analysis to City of Shakopee floodplain administrator.•https://www.edenprairie.org/city-government/departments/public-works/public-works-forms/land-alteration-permit•Water Resources Coordinator: Leslie Stovring•Land Alternation Permits: Randy Slick
12	Water Resources Land Alteration	City of Eden Prairie	For more information call 952-949-8327	90% Plans	Young Environmental Consulting Group	For more information call 952-949-8327			
13	General Stormwater Permit NPDES	MPCA	Project specific information including the selected contractor	Final Plans	Young Environmental Consulting Group	https://www.pca.state.mn.us/business-with-us/construction-stormwater	N/A	\$400	We will include a SWPPP in the Drawings, the Contractor will be responsible for permit compliance and documentation at the time of construction, all required wetland permits or determinations from the USACE or any other governmental agency must be complete before application

Appendix E – Hydraulic Model Results



Minnesota River Area 3 Bluff Toe Stabilization LMWD

50% AEP Flood - 17,000 cfs



LOWER MINNESOTA RIVER
WATERSHED DISTRICT

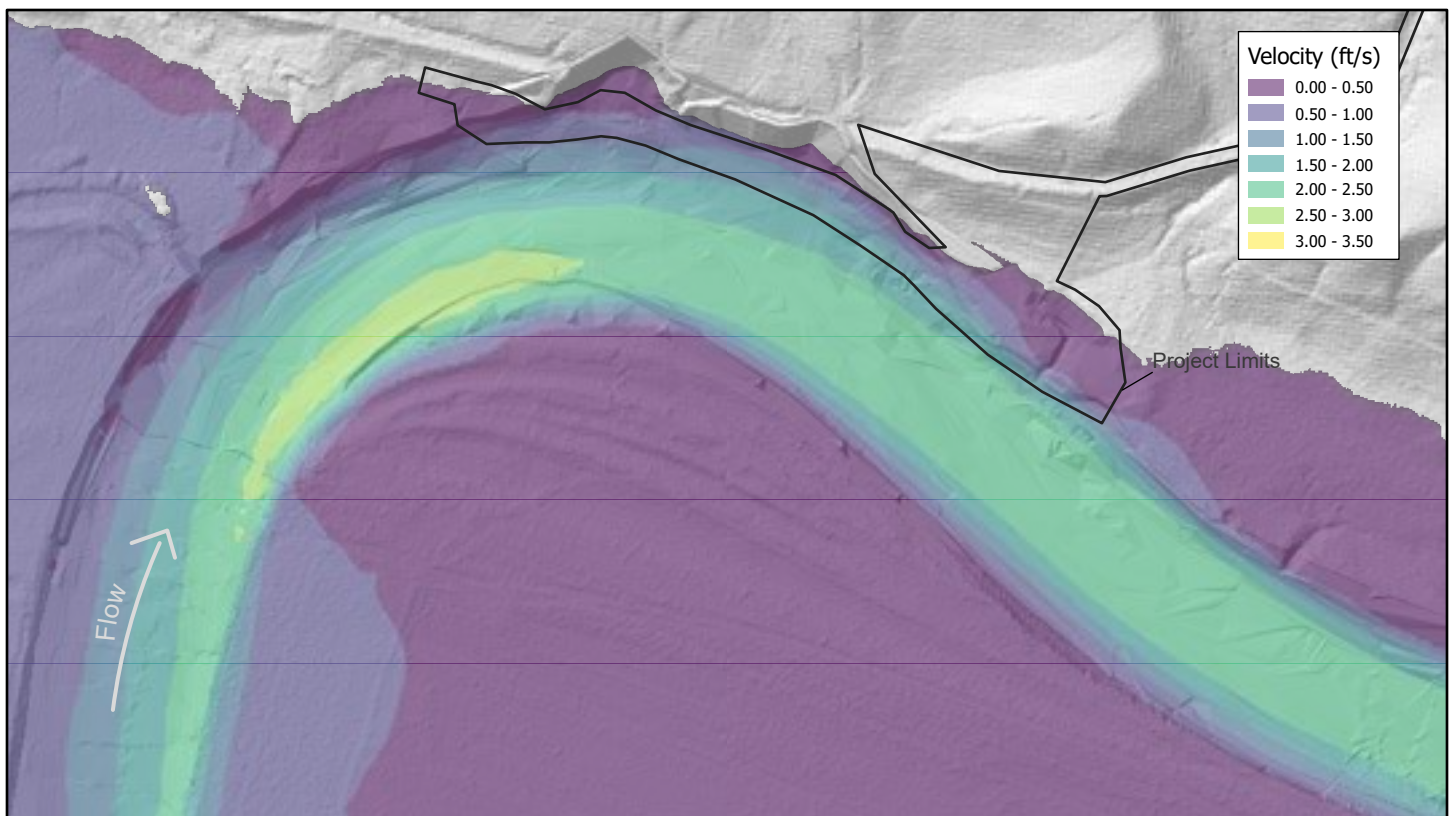
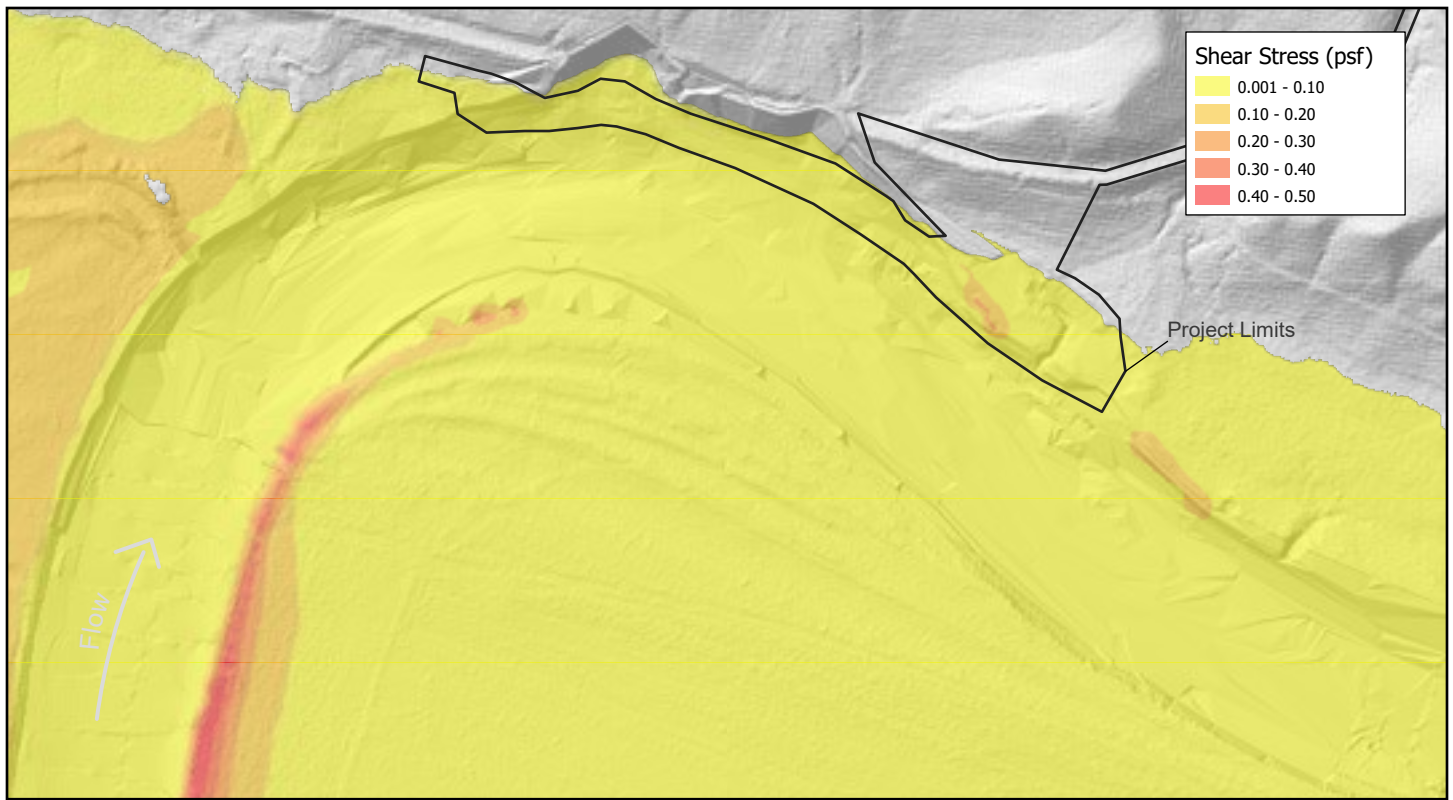


Notes:

1. Existing Conditions terrain is a composite of 2011 Lidar merged with Inter-Fluve topographic and bathymetric survey data collected in 2021 and 2022.
2. Proposed work to restore ground surfaces to existing conditions.
3. Results show HEC-RAS 6.3 2D model outputs for project area.



Feet
0 200 400



Minnesota River Area 3 Bluff Toe Stabilization LMWD

10% AEP Flood - 48,500 cfs

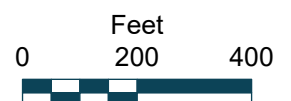


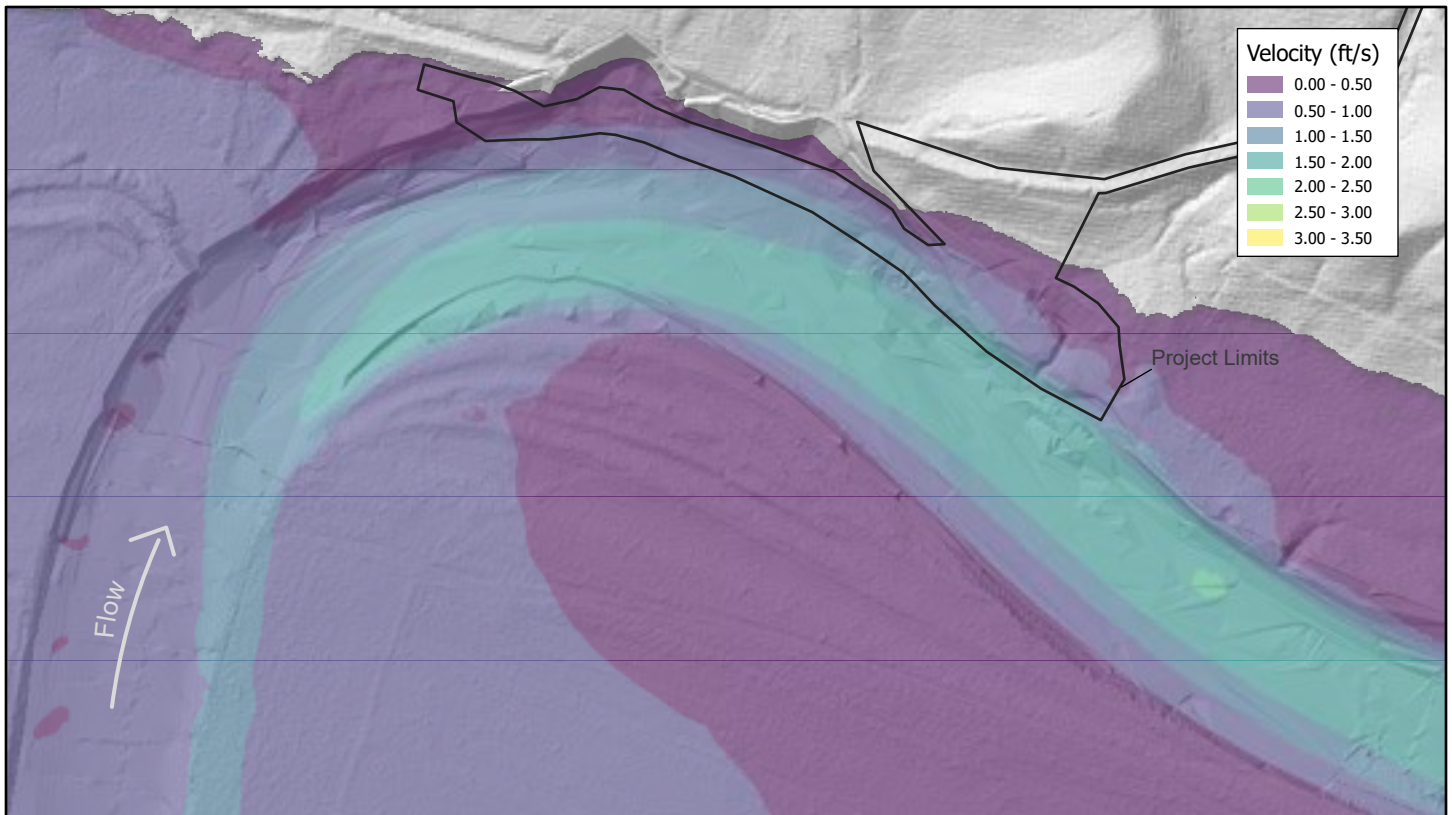
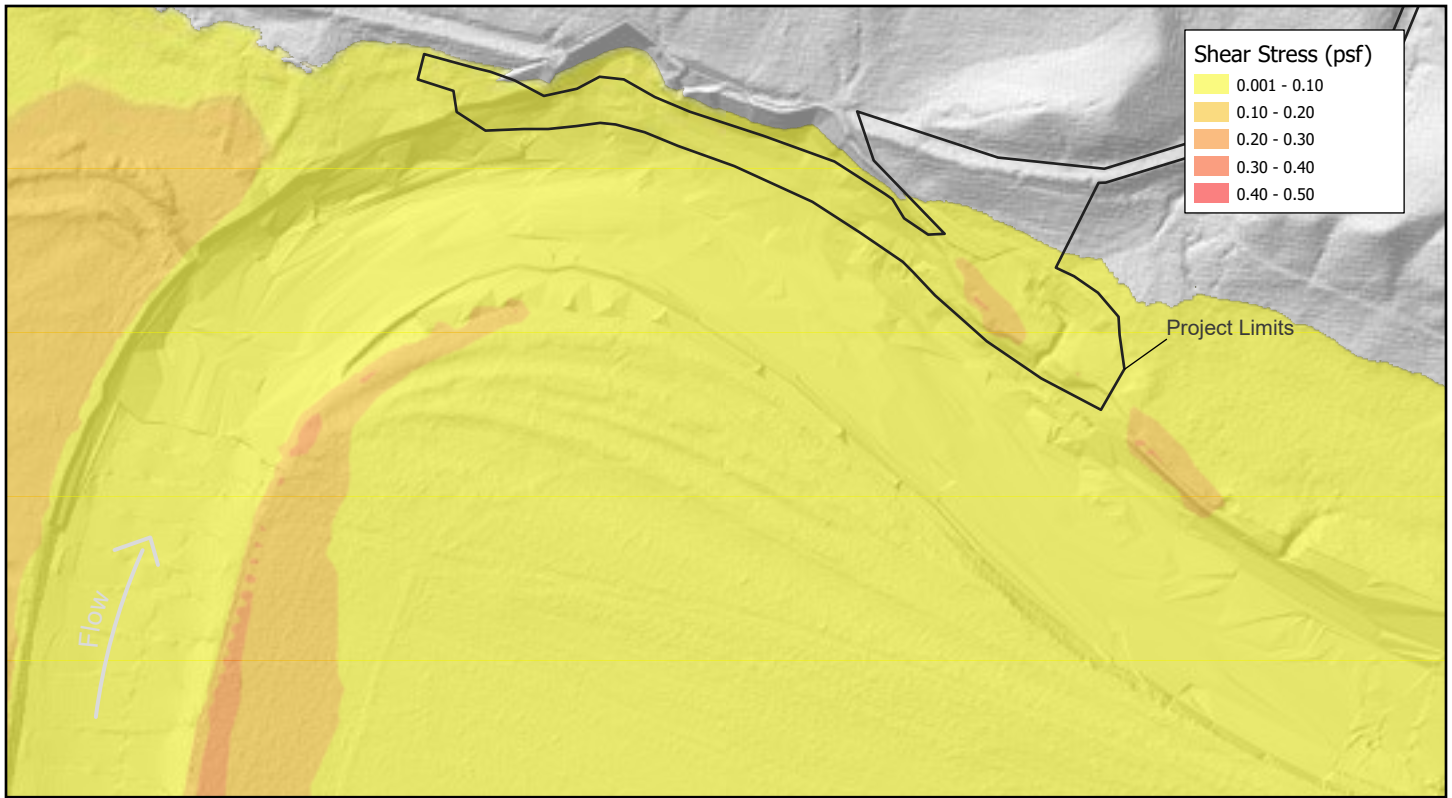
LOWER MINNESOTA RIVER
WATERSHED DISTRICT



Notes:

1. Existing Conditions terrain is a composite of 2011 Lidar merged with Inter-Fluve topographic and bathymetric survey data collected in 2021 and 2022.
2. Proposed work to restore ground surfaces to existing conditions.
3. Results show HEC-RAS 6.3 2D model outputs for project area.





Minnesota River Area 3 Bluff Toe Stabilization LMWD

2% AEP Flood - 85,300 cfs



LOWER MINNESOTA RIVER
WATERSHED DISTRICT

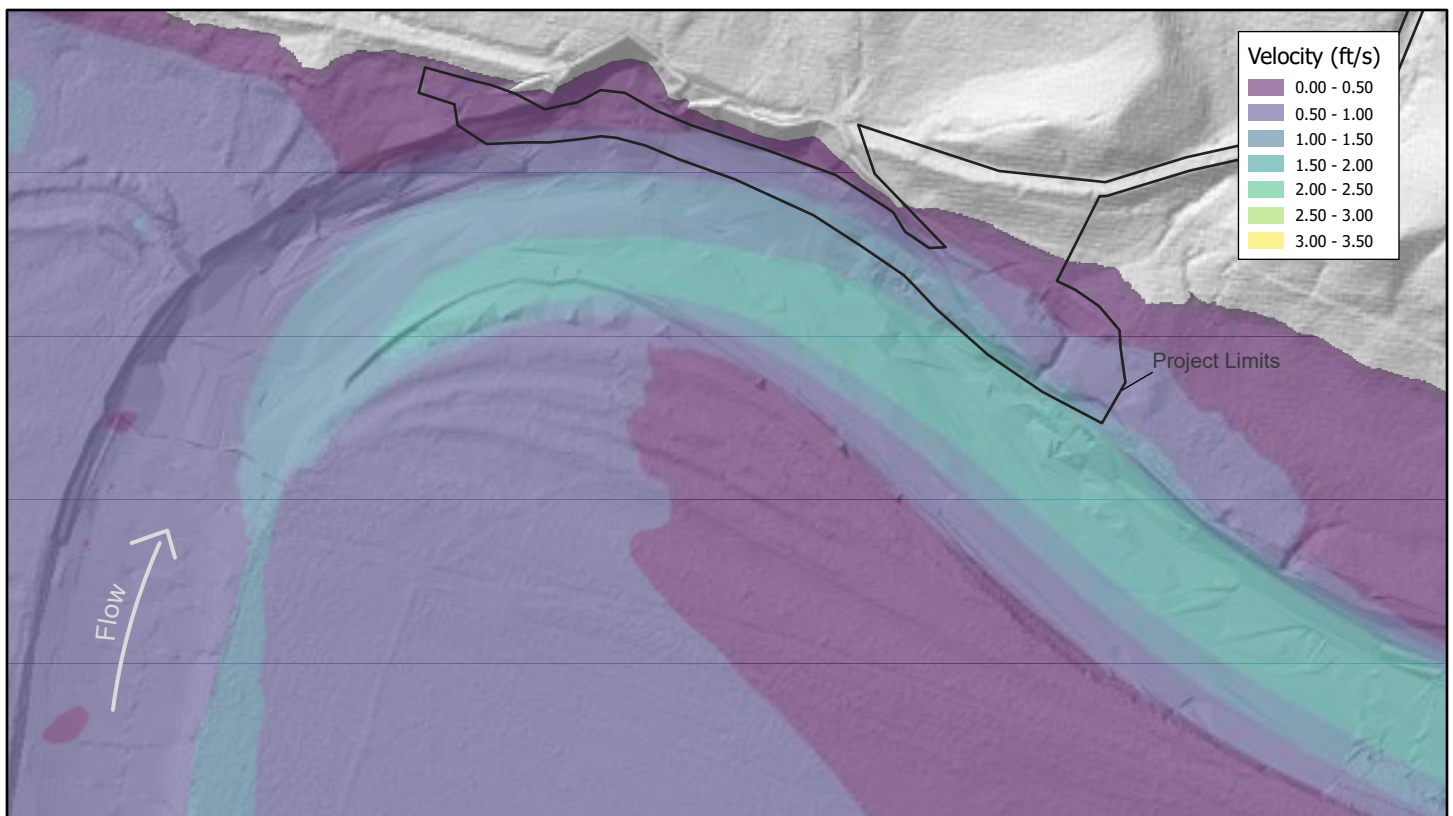
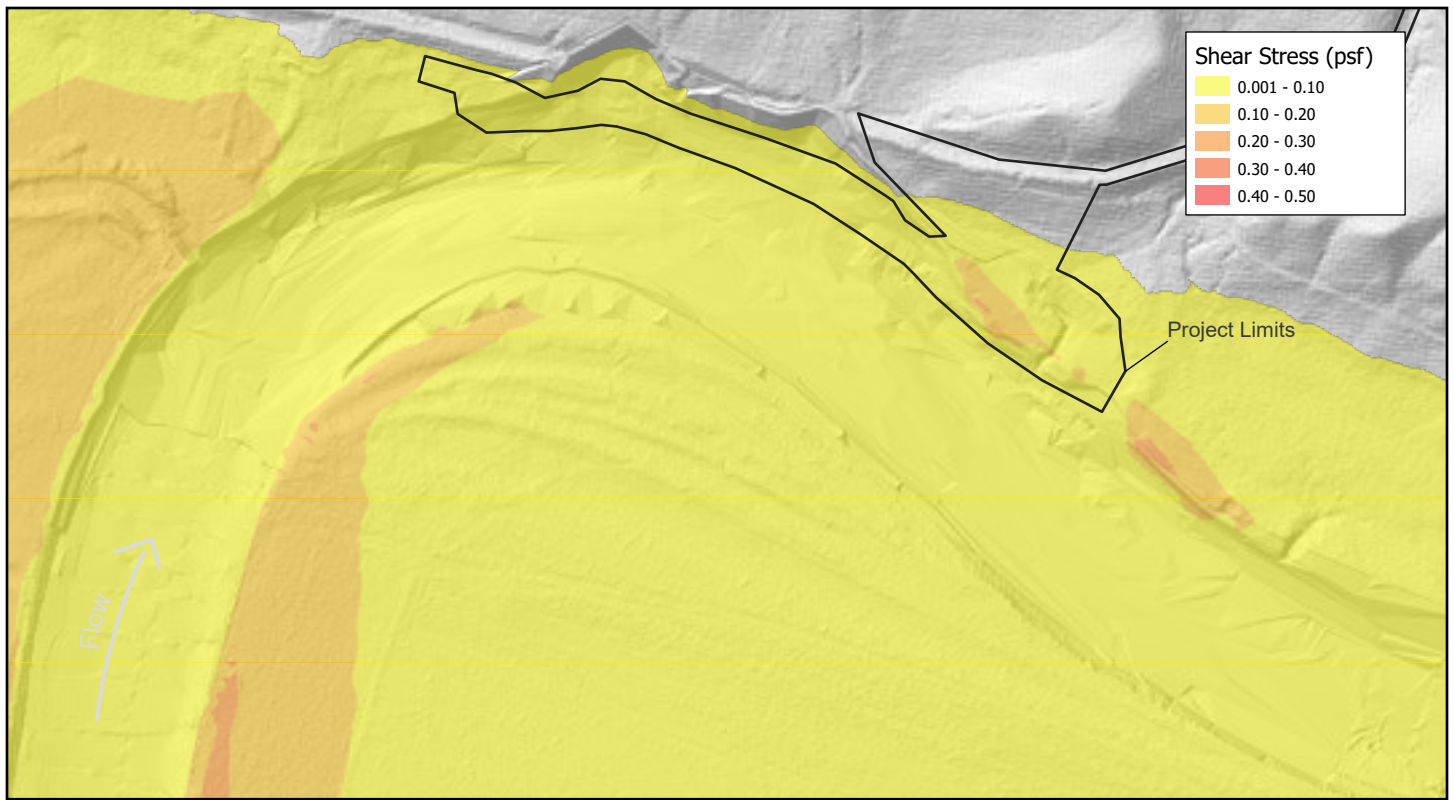


Notes:

1. Existing Conditions terrain is a composite of 2011 Lidar merged with Inter-Fluve topographic and bathymetric survey data collected in 2021 and 2022.
2. Proposed work to restore ground surfaces to existing conditions.
3. Results show HEC-RAS 6.3 2D model outputs for project area.



Feet
0 200 400



Minnesota River Area 3 Bluff Toe Stabilization LMWD

1% AEP Flood - 103,000 cfs



LOWER MINNESOTA RIVER
WATERSHED DISTRICT

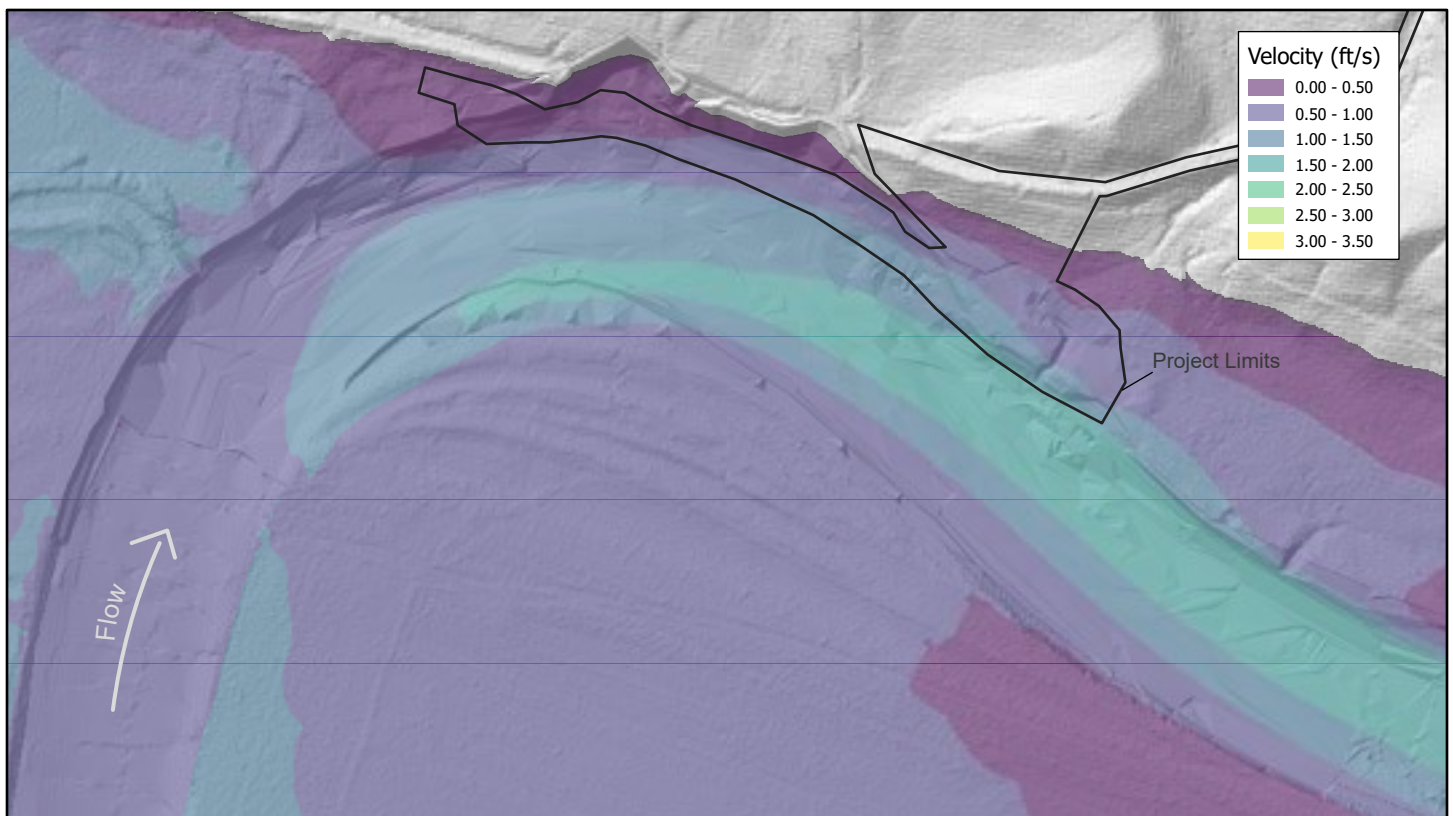
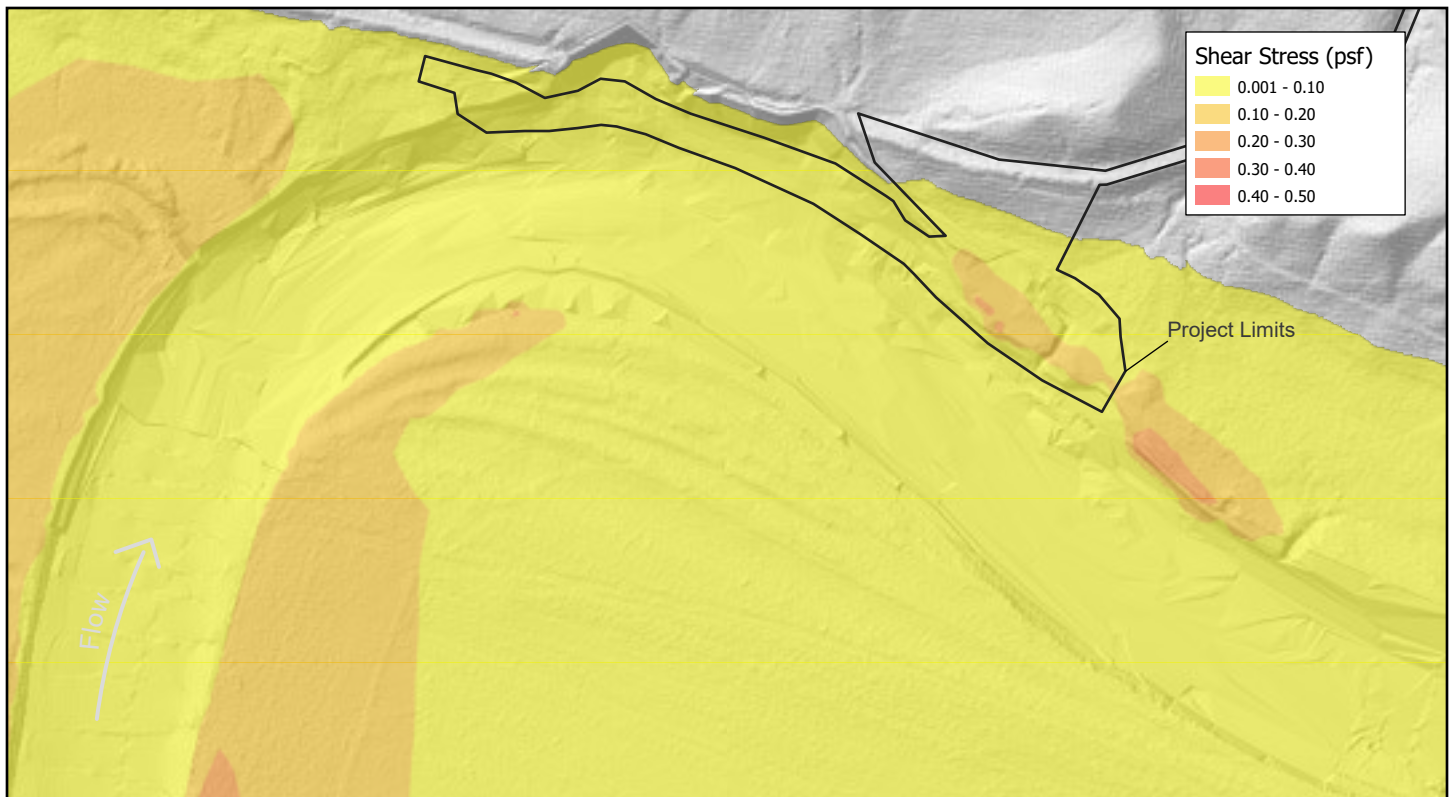


Notes:

1. Existing Conditions terrain is a composite of 2011 Lidar merged with Inter-Fluve topographic and bathymetric survey data collected in 2021 and 2022.
2. Proposed work to restore ground surfaces to existing conditions.
3. Results show HEC-RAS 6.3 2D model outputs for project area.



Feet
0 200 400



Minnesota River Area 3 Bluff Toe Stabilization LMWD

2% AEP Flood - 85,300 cfs

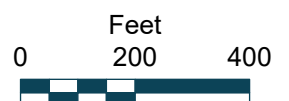


LOWER MINNESOTA RIVER
WATERSHED DISTRICT



Notes:

1. Existing Conditions terrain is a composite of 2011 Lidar merged with Inter-Fluve topographic and bathymetric survey data collected in 2021 and 2022.
2. Proposed work to restore ground surfaces to existing conditions.
3. Results show HEC-RAS 6.3 2D model outputs for project area.



Attachment 4 – Permit Matrix

Area 3 Riverbank Stabilization Permit Matrix

Permit	Agency	Submittal Needs	Predecessor Task	Status as of July 7, 2023
Public Waters Work Permit	MNDNR	<ul style="list-style-type: none"> • Use MPARS site to submit permit application. Application submittal information is similar to joint application for USACE, MPCA 401 WQ Certification, and WCA 	90% Plans	Pre-permit meeting complete
No-Rise	FEMA	<ul style="list-style-type: none"> • No Rise Documentation • 1-D Hydraulic Model 	90% Plans	Waiting for complete hydraulic modeling from 90% design
General Stormwater Permit NPDES	MPCA	<ul style="list-style-type: none"> • Copy of Stormwater Pollution Prevention Plan 	100% Plans	Not started
401 Water Quality Certification	MPCA	Joint application form https://bwsr.state.mn.us/sites/default/files/2021-05/Wetland_WCA_MN_joint_appl_form%20May%202021.pdf	60% Plans	Pre-permit meeting complete
Land Alteration/ Grading Permit	City of Eden Prairie	<ul style="list-style-type: none"> • Full size copy of plans • Floodplain analysis with 1-D model • Specifications • Stormwater Management Report • Executed copy of contract documents • Project schedule and sequence of construction • Copies of all applicable permits • Copy of Storm Water Pollution Prevention Plan 	90% Plans	Pre-permit meeting complete
Project Review by State Historic Preservation Office & Tribal Historic Preservation Office Review	MN SHPO/THPO	<ul style="list-style-type: none"> • Request for Project Review form: https://mn.gov/admin/assets/R-C_Form_SIMPLE_1_tcm36-327668.pdf • Online submittal accepted during "Stay Safe MN" order to: ENReviewSHPO@state.mn.us • Followed by mailed submittal • Include TRS/project boundary 	60% Plans	Cultural resources review in progress
Natural Heritage Information System Review	MNDNR	<ul style="list-style-type: none"> • Fill out NHIS Data Request Form and submit to Melissa • map of project boundary/area of interest (topo or aerial preferred) • provide GIS shapefile of project boundary • TRS • Project description and impact on surrounding area 	60% Plans	NHIS review in progress
Wetland Review Application/WCA Wetland Determination Application	City of Eden Prairie	<ul style="list-style-type: none"> • Application form (https://www.edenprairie.org/home/showpublisheddocument?id=695) • Joint Permit Application (USACE) • Copy of plans • Map of soil sampling and transect locations • Hennepin County Soil Survey Map • National Wetlands Inventory Map • MN DNR Protected Waters Inventory Map • City Water Body Map • Wetland survey report • Wetland Delineation/Wetland Type Determination • Wetland data collected (minimum of two transects per wetland) • GPS data for all stormwater ponds and wetlands on site • Buffer strip evaluation for all wetlands on project site 	60% Plans	Wetland delineation report in progress
Section 10 of Safe Rivers and Harbors Act	USACE	Joint application form https://bwsr.state.mn.us/sites/default/files/2021-05/Wetland_WCA_MN_joint_appl_form%20May%202021.pdf	60% Plans	Pre-permit meeting complete
Section 404 for Discharges of Dredged or Fill Material into the Waters of the US	USACE	Joint application form https://bwsr.state.mn.us/sites/default/files/2021-05/Wetland_WCA_MN_joint_appl_form%20May%202021.pdf	60% Plans	Pre-permit meeting complete

Attachment 5 – Budget Details

Minnesota River Area 3 100% Project Design Budget July 2023		
Tasks		Cost
Task 2.1 - Bid Documentation and 100% Construction Plans		
2.1-1	Project Management	\$ 12,000.00
2.1-2	Final Bid Documents and Review	\$ 45,000.00
	Subtotal	\$ 57,000.00
Task 2.2 Construction Administration		
2.2-1	Contract Award	\$ 11,000.00
2.2-2	Construction Administration	\$ 25,000.00
2.2-3	Project Closeout	\$ 24,000.00
	Subtotal	\$ 60,000.00
	Total Cost	\$ 117,000.00

Minnesota River Area 3
60% Design Budgetary Opinion of Probable Construction Cost
January 2023

General						
Item #	Item	Unit	Quantity	Unit Cost	Line Item Total	Notes
1	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	1	\$377,000	\$377,000	Assumed 12% of items 4 and higher, assumed one mobilization for all project components
2	SITE ACCESS AND STAGING	LUMP SUM	1	\$157,000	\$157,000	Assumed 5% of items 4 and higher, assumed stormwater feature reconstruction is in the same general vicinity
3	AS-BUILT SURVEY	LUMP SUM	1	\$15,000	\$15,000	RTK survey of final grade
				SUBTOTAL	\$549,000	
Launchable Rock Toe at Area 3						
Item #	Item	Unit	Quantity	Unit Cost	Line Item Total	Notes
4	CONTROL OF WATER	LUMP SUM	1	\$182,140	\$182,140	Assumed 8% of other construction items, assumes localized dewatering and turbidity curtain.
5	EROSION AND SEDIMENT CONTROL	LUMP SUM	1	\$20,000	\$20,000	
6	REMOVE AND DISPOSE OF EXISTING STORMWATER POND DEBRIS	LUMP SUM	1	\$10,000	\$10,000	
7	SHEETPILE	LUMP SUM	1	\$650,000	\$650,000	
8	MNDOT CLASS II RIPRAP	CY	12,600	\$100	\$1,260,000	Assumes no filter gravel is required.
9	EARTHWORK CUT	CY	16,400	\$12	\$196,800	Includes excavation required for bluff toe launchable rock toe, trenched rock in floodplain, and stormwater pond bank grading.
10	PLACE AND COMPACT SALVAGED FILL	CY	4,200	\$9	\$37,800	Salvaged fill placed over trenched rock. Topsoil salvage and respread in floodplain rock trench areas is incidental.
11	HAUL AND OFFSITE DISPOSAL OF CLEAN FILL	CY	12,200	\$60	\$732,000	Portion not included as fill over riprap trenches.
12	F&I NONWOVEN COIR FABRIC	SY	1,200	\$6	\$7,200	Installed in Stormwater Pond Grading areas.
13	F&I MNDOT CATEGORY 20 EROSION CONTROL BLANKET	SY	7,000	\$2	\$14,000	Installed in Floodplain Trench and Bluff Toe Area.
14	NATIVE RIPARIAN SEED MIX	ACRE	3.0	\$8,000	\$24,000	Includes all treatment areas.
15	WILLOW LIVE STAKES	EACH	320	\$10	\$3,200	Assumes 10 foot O.C. planting on floodplain trench and stormwater pond grading areas.
16	BARE ROOT STOCK	EACH	60	\$30	\$1,800	Assumes one row of 15 foot O.C. planting on floodplain trench and stormwater pond grading areas.
				SUBTOTAL	\$3,138,940	

Rounded Combined Subtotal	\$3,688,000
Contingency 25%	\$922,000
ROUNDED ESTIMATED TOTAL	\$4,600,000
AACE Class 2 Low Range (-15%)	\$3,900,000
AACE Class 2 High Range (+20%)	\$5,500,000

The High Range dollar amount was used to estimate the construction cost, identified as Task 3 in the Opportunity Grant Application.

Attachment 6 – 2020 Bathymetric Survey

**Figure 1:
River Cross-Sections**



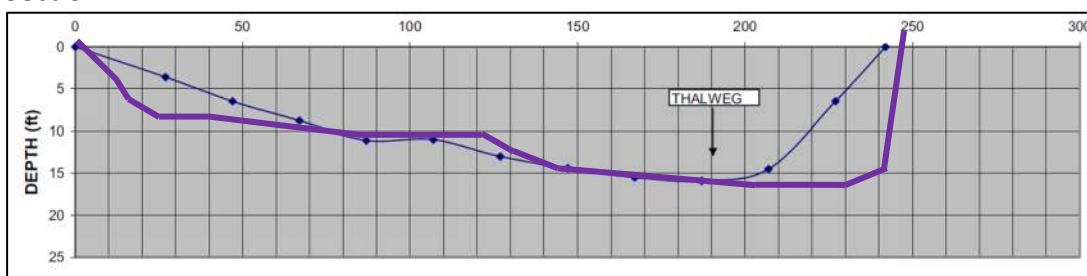
- LEGEND**
- Area 3 Study Area
 - River Cross-Sections
 - Hennepin & Scott Co. 2-ft Contours
 - Public Waters
 - Public Waterbodies
 - LMRWD Overlay Districts
 - Steep Slopes Overlay District [SSOD]
 - Political Boundaries
 - Eden Prairie
 - LMRWD Boundary
 - Cities, Townships, Unincorporated Areas
 - County Boundaries

LMRWD Watershed Location Map

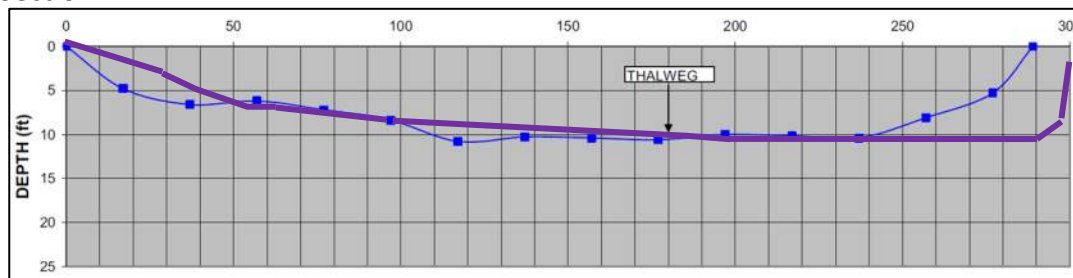


Figure 2. 2009 and 2020 River Cross-Sections (2020 in purple, left-to-right looking downstream)

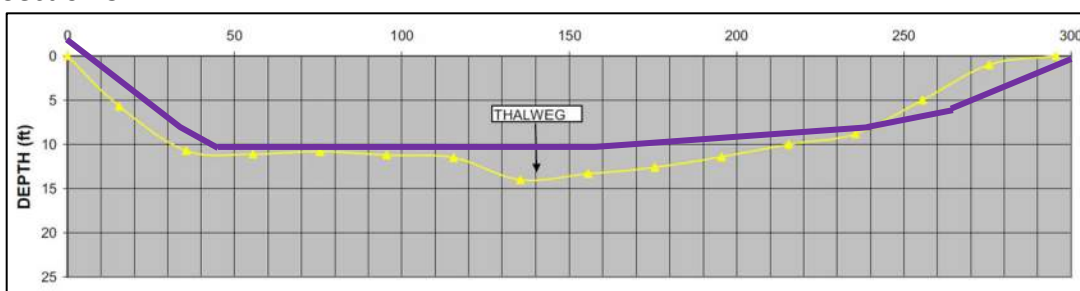
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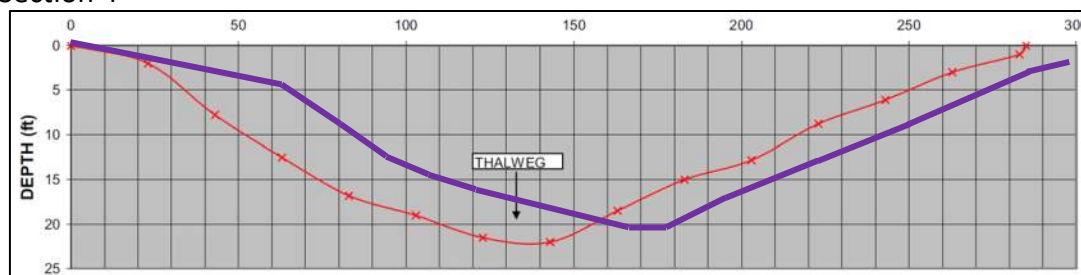
Cross-Section 2



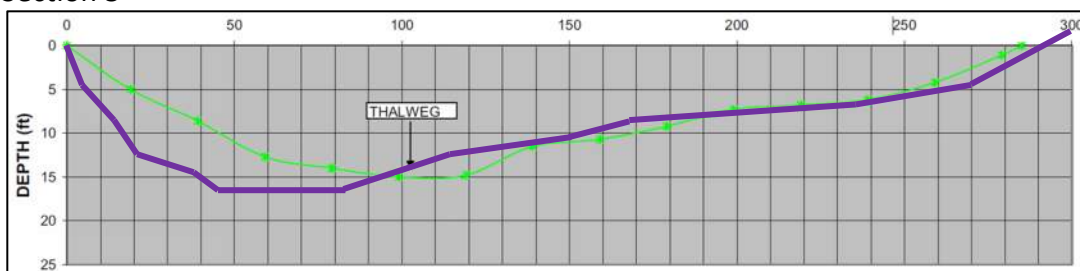
Cross-Section 3



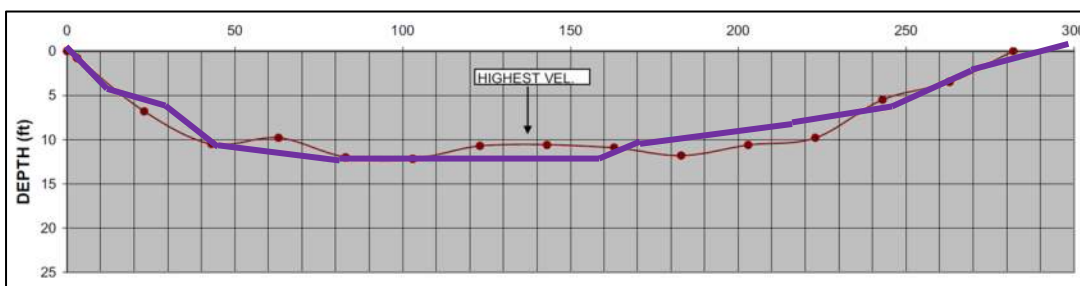
Cross-Section 4



Cross-Section 5



Cross-Section 6



Attachment 7 – 2021/2022 Bathymetric Survey

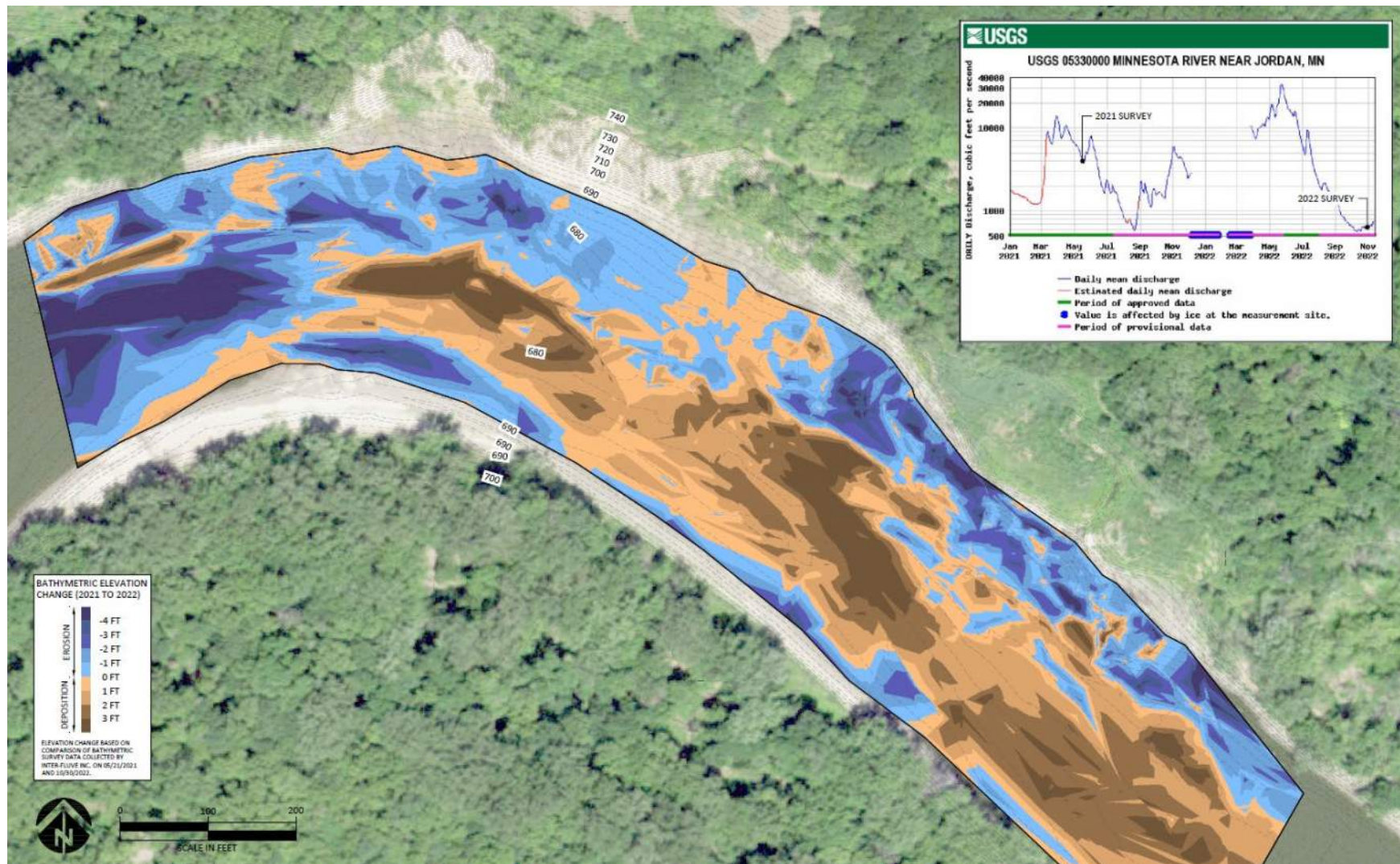


Figure 4: Comparison between 2021 and 2022 bathymetric surveys showing erosional (blue) and depositional (brown) areas.



LOWER MINNESOTA RIVER WATERSHED DISTRICT

Executive Summary for Action

Lower Minnesota River Watershed District Board of Managers Meeting

Wednesday, July 19, 2023

Agenda Item

Item 6. I. – Permits & Project Reviews

Prepared By

Linda Loomis, Administrator

Summary

i. Shakopee Mdewakanton Sioux Community Organic Recycling Facility Relocation (LMRWD No. 2022-016)

At the June 2023 meeting of the Board of Managers, the Board conditionally approved the project for LMRWD Rule B – Erosion and Sediment Control. The Applicant is not seeking approval for Rule C – Floodplain and Drainage Alteration and Rule D – Stormwater Management. Young Environmental Consulting Group has reviewed documentation provided by the applicant on behalf of the LMRWD and recommends conditional approval subject to receipt of final construction plans signed by a professional engineer, a copy of the NPDES Industrial Stormwater Permit, and a copy of Scott County Conditional Use Permit and approval from Louisville Township. Technical Memorandum – Shakopee Mdewakanton Sioux Community Organic Recycling Facility Relocation (LMRWD No. 2022-016) dated July 12, 2023, is attached for the Board's information.

Attachments

Technical Memorandum – Shakopee Mdewakanton Sioux Community Organic Recycling Facility Relocation (LMRWD No. 2022-016) dated July 12, 2023

Recommended Action

Motion to conditionally approve a permit for Shakopee Mdewakanton Sioux Community Organic Recycling Facility Relocation (LMRWD No. 2022-016) subject to receipt of final construction plans signed by a professional engineer, a copy of the NPDES Industrial Stormwater Permit, and a copy of Scott County Conditional Use Permit and approval from Louisville Township

a. Maintenance Agreement between the LMRWD and Shakopee Mdewakanton Sioux Community

The Lower Minnesota River Watershed District has required that a Maintenance Agreement be recorded to identify the responsibilities of the Shakopee Mdewakanton Sioux Community regarding maintenance of the stormwater management system. Often maintenance agreements are between the owner and a city, however this project is located within and unincorporated area of the LMRWD. The LMRWD has therefore assumed this role.

The Board should make a motion to authorize execution of the Maintenance Agreement between the LMRWD and the SMSC.

Attachments

Maintenance Agreement between the Lower Minnesota River Watershed District and the Shakopee Mdewakanton Sioux Community

Recommended Action

Motion to authorize execution of the Maintenance Agreement between the Lower Minnesota River Watershed District and the Shakopee Mdewakanton Sioux Community

ii. Peterson Wetland Bank (LMRWD No. 2022-037)

Peterson Wetland Bank is proposed for an area east of TH 101 in Carver, Hennepin and Scott Counties. This area encompasses portions of Chanhassen, Eden Prairie, and Shakopee. Eden Prairie is acting as the LGU for the project. The area has been farmed and the Peterson Family is proposing to create a natural wetland system in exchange for wetland banking credits. Young Environmental Consulting Group has reviewed the application on behalf of the LMRWD, and recommends conditional approval contingent upon receipt of final construction plans signed by a professional engineer, a copy of the NPDES Construction Stormwater Permit, the name and contact information for all contractors undertaking land disturbing activities, the name and contact information for the person(s) responsible for erosion and sediment control inspections and maintenance, and documentation of approval or applicable permits from the cities of Eden Prairie, Chanhassen and Shakopee.

Attachments

Technical Memorandum – Peterson Wetland Bank (LMRWD No. 2022-037) dated July 12, 2023

Recommended Action

Motion to conditionally approve Peterson Wetland Bank permit (LMRWD No. 2022-037) contingent upon the receipt of final construction plans signed by a professional engineer, a copy of the NPDES Construction Stormwater Permit, the name and contact information for all contractors undertaking land disturbing activities, the name and contact information for the person(s) responsible for erosion and sediment control inspections and maintenance, and documentation of approval or applicable permits from the cities of Eden Prairie, Chanhassen and Shakopee

iii. KTI Fencing Property (LMRWD No. 2023-014)

This application for a permit is for a commercial development in the City of Savage. Young Environmental Consulting Group has reviewed the application, on behalf of the LMRWD and recommends conditional approval contingent upon the receipt of a copy of the NPDES Construction Stormwater Permit, contact information for the contractor(s), contact information for the person(s) responsible for erosion and sediment control measures and documentation that the applicant has received full approval for the project from the City of Savage. Technical Memorandum – KTI Fencing Property (LMRWD No. 2023-014) dated July 12, 2023, detailing the review is attached for the Board's information.

Attachments

Technical Memorandum – KTI Fencing Property (LMRWD No. 2023-014) dated July 12, 2023

Recommended Action

Motion to conditionally approve KTI Fencing Property (LMRWD No. 2023-014) contingent upon the receipt of a copy of the NPDES Construction Stormwater Permit, contact information for the contractor(s), contact information for the person(s) responsible for erosion and sediment control measures and documentation that the applicant has received full approval for the project from the City of Savage

iv. Bloomington Storm Sewer Maintenance (LMRWD No. 2023-015)

The City of Bloomington is addressing maintenance issues within its Storm Sewer system. Two projects planned fall within the LMRWD and the MN River floodplain, so a LMRWD permit is required. Young Environmental Consulting Group has reviewed the permit application, on behalf of the LMRWD, and recommends conditional approval contingent upon receipt of the following; final construction plans signed by a professional engineer, name and contact information for all contractors undertaking land disturbing activities, name and contact information the person(s) responsible for erosion control inspections and maintenance, a copy of the contractor's water management plan with erosion and sediment control measures, and a copy of the approved MnDNR permit. Technical Memorandum – Bloomington Storm Sewer Maintenance (LMRWD No. 2023-015) dated July 12, 2023, is attached for the Board's information.

Attachments

Technical Memorandum – Bloomington Storm Sewer Maintenance (LMRWD No. 2023-015) dated July 12, 2023

Recommended Action

Motion to conditionally approve Bloomington Storm Sewer Maintenance (LMRWD No. 2023-015) permit contingent upon receipt of the following: final construction plans signed by a professional engineer, name and contact information for all contractors undertaking land disturbing activities, name and contact information the person(s) responsible for erosion control inspections and maintenance, a copy of the contractor's water management plan with erosion and sediment control measures, and a copy of the approved MnDNR permit

v. Chaska Tech Center – Amendment (LMRWD No. 2023-008)

At the April 2023 meeting of the LMRWD Board of Managers, a permit was approved for this project. Since then the applicant informed the LMRWD of changes to the plan upon which the permit was granted. The changes required the LMRWD to re-evaluate the application. Upon re-evaluation, it was determined that the permit needed to be amended. After consulting with legal counsel as to whether the amendment could be managed administratively, it was determined that the amendment must be approved by the Board. Young Environmental Consulting Group re-evaluated the application, on behalf of the LMRWD and recommends approval of the permit amendment with a special stipulation requiring filed verification of infiltration rates of the proposed infiltration basin.

Attachments

Technical Memorandum – Chaska Tech Center – Amendments (LMRWD No. 2023-008) dated July 12, 2023 (which includes Technical Memorandum – Chaska Tech Center dated April 12, 2023

Recommended Action

Motion to approve a permit amendment Chaska Tech Center (LMRWD No. 2023-008) with the special stipulation requiring field verification of the infiltration rates of the proposed infiltration basin. If minimum infiltration rates cannot be achieved on site, removal of the clay layer and replacement with appropriate soils will be required

vi. Chaska Local Surface Water Management Plan

The City of Chaska is updating its Local Surface Water Management Plan (LSWMP). Local Plans must meet the requirements of the LMRWD Plan as well as the general requirement of Minnesota Statutes 103B.235 and Minnesota Rules Chapter 8410. Young Environmental Consulting Group reviewed Chaska's LSWMP, on behalf of the LMRWD, for conformance with the LMRWD Comprehensive Watershed Management Plan. Approval of the Chaska Plan is recommended subject to the to the City making the following amendments to the LSWMP before its adoption:

- Provide stricter erosion and sediment control and stormwater management regulatory standards and requirements for HVRAs and the Steep Slopes Overlay District.
- Require floodplain delineation in erosion and sediment control plans.
- Require deeper decompaction of compacted soil.

Attachments

Technical Memorandum – LMRWD – City of Chaska Stormwater Requirement Updates Review Dated July 12, 2023
Resolution 23-08 – Approving the Surface Water Management Plan for the City of Chaska

Recommended Action

Motion to adopt Resolution 23-08 Approving the Surface Water Management Plan for the City of Chaska

vii. 535 Lakota Lane, Chanhassen – work without a permit

At the June 2023 meeting of the Board of Managers, the Board directed that legal actions resume to bring 535 Lakota Lane into compliance with LMRWD Rules. Legal Counsel for the LMRWD sent a letter informing the Attorney for the property owner of the direction of the LMRWD Board. The letter sent is attached.

Attachments

Recommended Action



Technical Memorandum

To: Linda Loomis, Administrator
Lower Minnesota River Watershed District (LMRWD)

From: Erica Bock, Water Resources Scientist
Hannah LeClaire, PE, Project Manager

Date: July 12, 2023

Re: Shakopee Mdewakanton Sioux Community Organic Recycling Facility
Relocation (LMRWD No. 2022-016)

The Shakopee Mdewakanton Sioux Community (SMSC) has applied for an individual project permit from the LMRWD to relocate and construct their Organic Recycling Facility (ORF). The proposed location for the ORF is 12362 Chestnut Boulevard, Shakopee, Minnesota (Figure 1). The applicant's engineer, Bolton & Menk, submitted the permit application, associated application exhibits, and site plans for the SMSC ORF Relocation Project (Project).

Staff previously reviewed this project, and the LMRWD Board conditionally approved the project for Rule B—Erosion and Sediment Control, initial site preparation activities and mass grading only at the June 21, 2023, meeting (Attachment 1). The applicant is seeking an amendment to the permit to complete the construction of impervious surfaces and stormwater management facilities, triggering LMRWD Rule C—Floodplain and Drainage Alteration and Rule D—Stormwater Management.

Summary

Project Name: Shakopee Mdewakanton Sioux Community Organic Recycling Facility Relocation

Purpose: Construct an organic recycling facility

Project Size:

Area Disturbed	Existing Impervious Area	Proposed Impervious Area	Net Increase Impervious Area
58.7 acres	9 acres	39.5 acres	30.5 acres

Location: 12362 Chestnut Boulevard
Shakopee, MN 55379

LMRWD Rules: Rule B – Erosion and Sediment Control (addressed in previous memorandum, Attachment 1)
Rule C – Floodplain and Drainage Alteration
Rule D – Stormwater Management

Recommended Board Action: Conditional Approval of Rule C and D

Discussion

The LMRWD received the following documents for review:

- LMRWD Permit Application; received April 20, 2022.
- LMRWD resubmittal memo by Bolton & Menk; dated May 16, 2023; received May 16, 2023.
- Drainage Report for Organic Recycling Facility, by Bolton & Menk; dated April 20, 2022; revised October 28, 2022; received May 16, 2023.
- Organic Recycling Facility Plan Set, by Bolton & Menk; dated February 17, 2023; received May 17, 2023.
- No-Rise Memo by Bolton & Menk; dated April 20, 2022; revised May 12, 2022; received May 16, 2023.
- HEC-RAS Model showing existing and proposed conditions; received May 16, 2023.
- Signed maintenance agreement by Shakopee Mdewakanton Sioux Community; dated May 17, 2023; received May 17, 2023.
- Erosion and sediment control inspector contact information; received June 7, 2023.
- Contractor contact information; received June 7, 2023.
- Stormwater Pollution Prevention Plan by Bolton & Menk; dated June 5, 2023;

received June 7, 2023.

- Conditional Approval Item: National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit; dated June 22, 2023; received June 23, 2023.
- Revised Drainage Area Maps and HydroCAD Model by Bolton & Menk; received June 20, 2023.
- Revised Minimal Impact Design Standards (MIDS) Model Existing and Proposed Conditions by Bolton & Menk; received June 28, 2023.

The application was conditionally approved for only Rule B on June 21, 2023, to allow the applicant to begin work on initial site preparation activities and mass grading. The conditional approval items were received, and the Rule B permit was issued on June 26, 2023. The applicant provided additional documents and information to allow for review of Rule C and Rule D, and the application was deemed complete on June 30, 2023.

Rule C—Floodplain and Drainage Alteration

The LMRWD regulates the placement of fill and alterations to drainageways below the 100-year flood elevation. The project is located in the Minnesota River Floodplain, shown on the FEMA Flood Insurance Rate Map (FIRM) for Scott County, MN, Panel 27139C0015E (effective February 12, 2021). The project disturbs areas within FEMA Zone AE (or the 100-year floodplain). The effective FIRM shows the project at cross section AQ, with a regulatory 100-year elevation of 723.0 NAVD88. The proposed project will be placing 15,300 cubic yards of fill below the 100-year floodplain for drainage swale and treatment basins. The applicant submitted an updated HEC-RAS model based on the FEMA effective model to evaluate the impact of the proposed project on the floodplain. The proposed conditions model was edited to show the proposed grading at the project site. Most of the site is above the 100-year floodplain elevation, which led to a no-rise in the model. The project has provided first floor elevations of the proposed buildings, and all are at a minimum two feet above the 100-year high water elevation. The Project meets the minimum requirements of Rule C.

Rule D—Stormwater Management

The LMRWD regulates development or reconstruction projects that create more than one acre of impervious surface. The Project proposes the construction of 30.5 acres of new impervious surface for a total of 39.5 acres of impervious surfaces.

The stormwater runoff from proposed impervious areas will be treated on site by two contact water basins, a reuse basin, and an infiltration/filtration basin (Figure 1). Contact water is runoff from the covered aerated static pile (CASP) composting areas and is defined as water that is in contact with waste, immature compost, and residuals and must be diverted to a leachate collection and treatment system. Contact water is subject to the Minnesota Pollution Control Agency (MPCA) Industrial Wastewater permitting

standards and will be contained on site and reused, with no planned discharge to a receiving water.

The reuse basin will be used to irrigate the feedstock located in the windrow curing areas shown Attachment 2. Runoff water from the windrow area is not considered contact water and will runoff to the reuse basin. Composting operations are water intensive and annual water demand is expected to be approximately 20 million gallons. The goal of the reuse basin will be to retain as much stormwater runoff as possible for reuse. During large storm events, the reuse basin will act as a wet sedimentation pond and discharge to the Minnesota River. The infiltration/filtration basin will treat stormwater runoff from the future product storage area (Attachment 2). As with all infiltration basins, there is the long-term potential for the system to become plugged or for infiltration to become less efficient. Because of the proximity of the basin to the Minnesota River, the designers proposed to include a capped filtration system as a backup to infiltration. Drain tile will be installed within the basin; however, it will initially be capped to promote infiltration. In the event that the basin is not performing as designed, the system can be uncapped.

Rule 5.4.1 of Rule D requires that applicants demonstrate no increase in proposed runoff rates of the site compared to existing conditions.

Table 1. SMSC ORF Relocation Project Runoff Rate Summary

Rainfall Event (24-hour depth)	Existing Site Total (cfs*)	Proposed Site Total (cfs)	Change (cfs)
2-year (2.83")	25.19	14.01	-11.18
10-year (4.24")	69.96	54.71	-15.25
100-year (7.30")	210.29	112.7	-97.59

*Cubic feet per second (cfs)

The reported runoff rates show a decrease for the proposed conditions for the 2-, 10-, and 100-year events, meeting the rate control requirements of Rule D. A summary of runoff for each of the existing and proposed drainage areas is shown in Attachment 3.

Existing conditions consist of all runoff sheet flowing west to Lake Gifford. Along the western edge of the property, a bluff with several small gullies has formed from overland runoff collection and scouring (see photos in Attachment 4). There are no existing stormwater best management practices (BMPs) on site and no surface storage. The proposed development is constructing a significant amount of new impervious surfaces. Stormwater BMPs are included in the design to both reduce runoff rates and runoff volumes from the site. The site has been designed to capture, retain, and reuse as much runoff from the proposed impervious surfaces as possible. This reduction in both peak flow rates and runoff volumes leaving the site is expected to reduce erosion of the existing bluff.

The proposed stormwater BMPs will direct a majority of stormwater runoff to one proposed outfall location (labeled Outfall #1). When analyzing just this singular point, the proposed development is increasing runoff rates at this location, as shown in Table 2. However, the project proposes to install a culvert at Proposed Outfall #1 to safely convey runoff to the bottom of the bluff, including riprap at the outlet to dissipate energy. Additionally, the installation of the culvert requires grading and stabilization of the gully, providing a secondary benefit to the area. Note: The gully is not in the LMRWD Steep Slopes Overlay District (SSOD) and has not been analyzed as part of the LMRWD Gully Inventory.

Table 2. SMSC ORF Relocation Outfall #1 Runoff Rate Summary

Rainfall Event (24-hour depth)	Existing Gully (cfs)	Proposed Outfall #1 (cfs)	Change
2-year (2.83")	0.05	4.19	+4.14
10-year (4.24")	0.38	27.03	+26.65
100-year (7.30")	1.83	39.24	+37.41

Section 5.4.2 of Rule D requires projects to retain one inch of runoff from the new and/or reconstructed on-site impervious surfaces. The total added impervious surfaces for the project is 30.5 acres, which requires the project to provide 110,715 cubic feet (CF) of volume retention. The applicant is proposing contact water treatment basins, Cell #3 Reuse Basin, and an infiltration/filtration basin to meet the volume control requirements of Rule D.

Table 3. SMSC ORF Relocation Project Volume Control Summary

BMP	Volume (CF) – Live Storage
Cell #3 Reuse Basin	184,533
Infiltration/Filtration	48,126
Contact Basin Cell 1	22,500
Contact Basin Cell 2	78,750
Total	333,909

The proposed volume control provides a total of 333,909 cubic feet of volume control for the proposed site, complying with Rule D.

Section 5.4.3 of Rule D requires no net increase in the total phosphorus (TP) or total suspended solids (TSS) to receiving waterbodies when compared to existing conditions.

Table 4. SMSC ORF Relocation Project Water Quality Summary

	TP (lb/yr)	TSS (lb/yr)
Existing	20.43	3711.6
Proposed	10.18	1848.6
Difference	10.25	1863
% Reduction	50%	50%

As presented, the pollutant load will be reduced for both TP and TSS. Hence, the project meets the water quality requirements established under Rule D.

Section 5.4.4 of Rule D states the permittee is responsible for developing and adhering to a maintenance plan for the permitted projects and that a maintenance agreement shall be recorded. The applicant has provided a signed maintenance agreement for the LMRWD, complying with Rule D.

Recommendations

Based on our review of the project, we recommend conditional approval for Rule C and D contingent on receipt of the following:

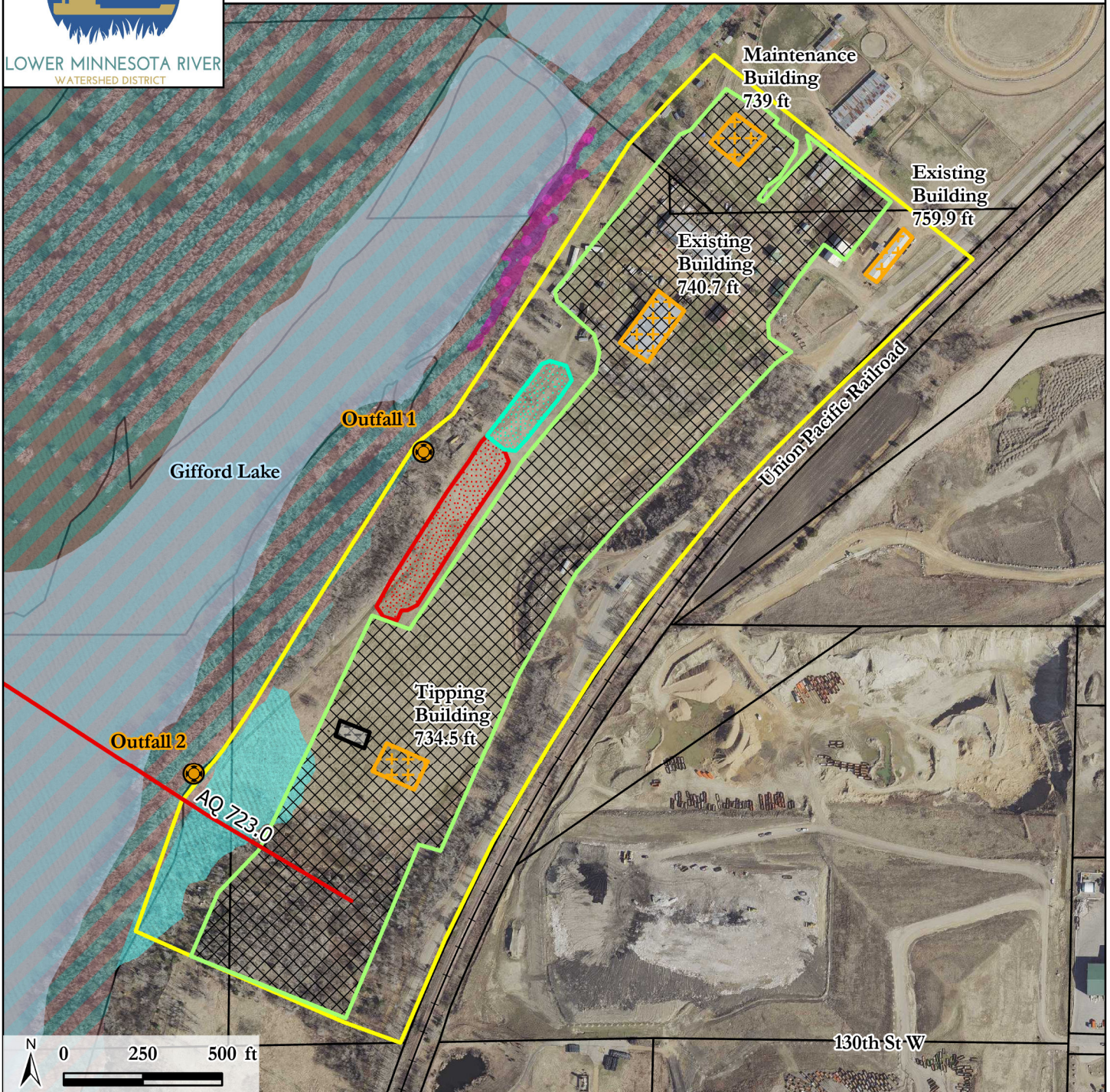
- Final construction plans signed by a professional engineer.
- Copy of the NPDES Industrial Stormwater Permit.
- Copy of Scott County Conditional Use Permit and approval from Louisville Township.

Attachments

- Figure 1—SMSC ORF Project Location Map
- Attachment 1—SMSC ORF Rule B Memo (LMWRD No. 2022-016) June 14, 2023
- Attachment 2—SMSC ORF Proposed Conditions Plan Sheet
- Attachment 3—Runoff Rate Summary
- Attachment 4—Existing Conditions Gully Photos



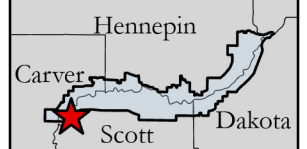
Figure I: ORF Relocation Project Location
LMRWD No. 2022-016

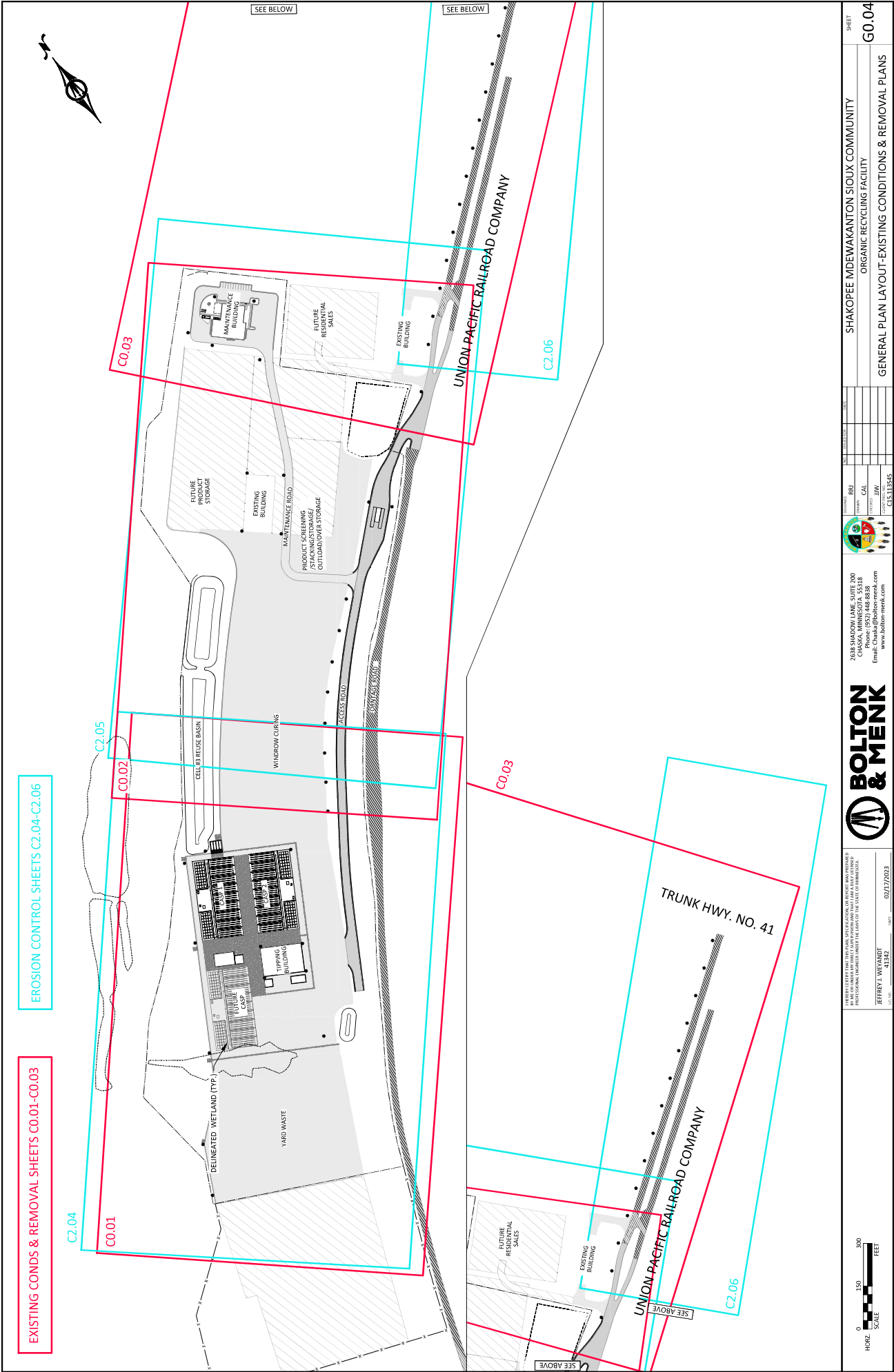


Legend

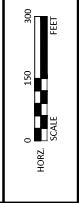
- | | | |
|-----------------------------------|------------------------------|--------------------|
| Project Location | Proposed Impervious | Floodway |
| Public Waters | Proposed Infiltration Basin | Parcels |
| Public Waterbodies | Proposed Reuse Basin | Railroads |
| Buildings | Steep Slope Overlay District | FEMA Cross Section |
| Proposed Contact Basin Cell 1 & 2 | 100-yr Floodplain | Outfalls |

LMRWD Watershed Location Map





SHEET	SHAKOPEE MIDEWAKANTON SIOUX COMMUNITY ORGANIC RECYCLING FACILITY	G0.04
PROJECT	2638 SHADOW LANE, SUITE 200 CHASKA, MINNESOTA 55318 Email: Chaska@bolton-menk.com www.bolton-menk.com	CS113545
DESIGNED BY	REJ	CAL
CHECKED BY	JMW	JMW
DATE	02/17/2023	41340
PROJECT NO.	41340	02/17/2023
PROJECT NAME	SHAKOPEE MIDEWAKANTON SIOUX COMMUNITY ORGANIC RECYCLING FACILITY	41340
PROJECT LOCATION	2638 SHADOW LANE, SUITE 200 CHASKA, MINNESOTA 55318	41340
PROJECT OWNER	SHAKOPEE MIDEWAKANTON SIOUX COMMUNITY	41340
PROJECT MANAGER	JMW	41340



2638 SHADOW LANE, SUITE 200
CHASKA, MINNESOTA 55318
Email: Chaska@bolton-menk.com
www.bolton-menk.com



PROJECT NO.	CS113545
DATE	02/17/2023
PROJECT NAME	SHAKOPEE MIDEWAKANTON SIOUX COMMUNITY ORGANIC RECYCLING FACILITY
PROJECT LOCATION	2638 SHADOW LANE, SUITE 200 CHASKA, MINNESOTA 55318
PROJECT OWNER	SHAKOPEE MIDEWAKANTON SIOUX COMMUNITY
PROJECT MANAGER	JMW

SHAKOPEE MIDEWAKANTON SIOUX COMMUNITY ORGANIC RECYCLING FACILITY

G0.04

GENERAL PLAN LAYOUT-EXISTING CONDITIONS & REMOVAL PLANS

CS113545

02/17/2023

41340

SHAKOPEE MIDEWAKANTON SIOUX COMMUNITY ORGANIC RECYCLING FACILITY

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CHASKA, MINNESOTA 55318

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CS113545

02/17/2023

41340



Technical Memorandum

To: Linda Loomis, Administrator
Lower Minnesota River Watershed District (LMRWD)

From: Erica Bock, Water Resources Scientist
Hannah LeClaire, PE, Project Manager

Date: June 14, 2023

Re: Shakopee Mdewakanton Sioux Community Organic Recycling Facility
Relocation (LMRWD No. 2022-016)

The Shakopee Mdewakanton Sioux Community (SMSC) has applied for an individual project permit from the LMRWD to relocate and construct their Organic Recycling Facility (ORF). The proposed location for the ORF is 12362 Chestnut Boulevard, Shakopee, Minnesota (Figure 1). The applicant's engineer, Bolton & Menk, submitted the permit application, associated applicant exhibits, and site plans for the SMSC ORF Relocation Project (Project).

The existing conditions of the site consist of primarily agricultural land. The eastern border is the Union Pacific Railroad and Barton Sand & Gravel Quarry. The western edge of the property is a steep bluff down to Lake Gifford. The proposed conditions of the site consist of an open air ORF that will process organic materials such as wood, food, and yard waste to convert it to a nutrient rich compost material. The Project proposes to construct 30.5 acres of new impervious surfaces.

The proposed impervious areas will be treated on site by three contact water basins, a reuse basin, and an infiltration/filtration basin. Contact water is from the covered aerated static pile (CASP) composting areas and is defined as water that is in contact with waste, immature compost, and residuals and must be diverted to a leachate collection and treatment system. Contact water is subject to the Minnesota Pollution Control Agency (MPCA) Industrial Wastewater permitting standards and will be contained on site and reused, with no planned discharge to a public receiving water. The reuse basin will be used to irrigate the feedstock arriving to the site. During large storm events, the reuse basin will act as a wet sedimentation pond and discharge to the Minnesota River. The infiltration/filtration basin will treat stormwater runoff. As with all infiltration basins,

there is the long-term potential for the system to become plugged or for infiltration to become less efficient. Because of the proximity of the basin to the Minnesota River, the designers proposed to include a capped filtration system as a backup to infiltration. Drain tile will be installed within the basin; however, it will initially be capped to promote infiltration. In the event that the basin is not performing as designed, the system can be uncapped.

The project is not located within the High Value Resource Area or Steep Slopes Overlay District, but it is located within the Minnesota River floodplain. The applicant proposes to begin initial site preparation activities and mass grading in June 2023 and construction of impervious surfaces in the fall of 2023 with site completion expected at the end of 2024. The project triggers LMRWD Rule B – Erosion and Sediment Control, Rule C – Floodplain and Drainage Alteration, and Rule D – Stormwater Management. Although the project address is Shakopee, the project is officially located within Louisville Township, and therefore requires a LMRWD individual permit.

After meeting with the applicant on June 1, 2023, to discuss the project design, project time constraints became apparent. In previous permit applications with similar time constraints, permits have been issued in phases, allowing the applicant to begin initial site preparation activities and mass grading ahead of the stormwater approvals under Rule D. Because of the construction schedule concerns of the applicant, we have segregated our permit review to just the initial site preparation activities and mass grading activities (Rule B). The applicant will be required to provide updated stormwater treatment calculations and floodplain fill calculations to obtain a permit amendment that includes the construction of impervious surfaces planned for the fall of 2023.

Summary

Project Name: Shakopee Mdewakanton Sioux Community Organic Recycling Facility Relocation

Purpose: Construct an organic recycling facility

Project Size:

Area Disturbed	Existing Impervious Area	Proposed Impervious Area	Net Increase Impervious Area
58.7 acres	9 acres	39.5 acres	30.5 acres

Location: 12362 Chestnut Boulevard
Shakopee, MN 55379

LMRWD Rules: Rule B – Erosion and Sediment Control
Rule C – Floodplain and Drainage Alteration
Rule D – Stormwater Management

**Recommended Board
Action:**

Conditional Approval of Rule B (initial site preparation activities and mass grading only)

Discussion

The LMRWD received the following documents for review:

- LMRWD Permit Application; received April 20, 2022
- LMRWD resubmittal memo by Bolton & Menk; dated May 16, 2023; received May 16, 2023
- Drainage Report for Organic Recycling Facility, by Bolton & Menk; dated April 20, 2022; revised October 28, 2022; received May 16, 2023
- Organic Recycling Facility Plan Set, by Bolton & Menk; dated February 17, 2023; received May 17, 2023
- No-Rise Memo by Bolton & Menk; dated April 20, 2022; revised May 12, 2022; received May 16, 2023
- HEC-RAS Model showing existing and proposed conditions; received May 16, 2023
- Signed maintenance agreement by Shakopee Mdewakanton Sioux Community; dated May 17, 2023; received May 17, 2023
- Erosion and sediment control inspector contact information; received June 7, 2023
- Contractor contact information; received June 7, 2023
- Stormwater Pollution Prevention Plan, by Bolton & Menk; dated June 5, 2023; received June 7, 2023.

The application was deemed complete on June 7, 2023, and the documents received provide the minimum information necessary for permit review for Rule B – Erosion and Sediment Control.

Rule B – Erosion and Sediment Control

The LMRWD regulates land-disturbing activities that affect **one acre** or more under Rule B. The proposed project would disturb approximately **58.7 acres** within the LMRWD boundary. The applicant has provided an erosion and sediment control plan, a Stormwater Pollution Prevention Plan, and contact information for the contractor and person(s) responsible for erosion and sediment control features. The project generally complies with Rule B, but a copy of the National Pollutant Discharge Elimination System (NPDES) construction stormwater permit is needed before the LMRWD can issue a permit.

Contractor:

Fehn Companies

Joel Landkammer

jlandkammer@fehncompanies.com

612-282-0675

Site Inspector:

Bolton & Menk

Chance McDonald

Chancellor.McDonald@bolton-menk.com

612-477-0800

Recommendations

The applicant has made it clear that time is of the essence for the Project. Therefore, staff recommend conditional approval of the Project for initial site preparation activities and mass grading only.

As discussed, this permit allows the applicant to begin work on the initial site preparation activities and mass grading but does not allow for the construction of any new impervious surface. Staff recommends the applicant and the LMRWD continue to work together to ensure the stormwater management system and floodplain fill comply with the LMRWD rules. A permit amendment will be required to construct impervious surfaces and stormwater best management practices (BMPs).

Based on our review of the project, we recommend conditional approval for Rule B (initial site preparation activities and mass grading) contingent on receipt of the following:

- Copy of NPDES Construction Stormwater permit

Attachments

- Figure 1—SMSC ORF Project Location Map

Attachment 3 - Runoff Rate Summary

Existing Conditions	2-year - 2.86	10-year - 4.24	100-year - 7.30
	outflow (cfs)		
Total	25.19	69.96	210.29

Proposed Conditions	2-year - 2.86	10-year - 4.24	100-year - 7.30
outlets	outflow (cfs)		
PM-2	0.12	0.73	2.95
PM-3	0.07	0.39	1.56
Outfall2	9.63	26.56	68.95
Outfall 1	4.19	27.03	39.24
Total	14.01	54.71	112.7



Outfall #1 Location Existing
Conditions



Outfall #2 Location Existing
Conditions



Outfall #2 Location Existing
Conditions

MAINTENANCE AGREEMENT
Between the Lower Minnesota River Watershed District and
Shakopee Mdewakanton Sioux Community

This Maintenance Agreement (Agreement) is made by and between the Lower Minnesota River Watershed District, a watershed district with purposes and powers set forth at Minnesota Statutes chapters 103B and 103D (LMRWD), and the Shakopee Mdewakanton Sioux Community (SMSC), a sovereign Indian Tribe, federally recognized under Section 16 of the Indian Reorganization Act of 1934, 25 U.S.C., 476

Recitals and Statement of Purpose

WHEREAS pursuant to Minnesota Statutes section 103D.345, the LMRWD has adopted and implements standards, including a Stormwater Management Standard;

WHEREAS under the Stormwater Management Standard, certain land development activity triggers the requirement to implement stormwater management structures and/or facilities that require ongoing maintenance;

WHEREAS under the Stormwater Management Standard, Maintenance and Easement section, the District requires a maintenance plan and a maintenance agreement be recorded with the applicable county (Scott) establishing the landowner's perpetual obligation to inspect and maintain stormwater-management facilities;

WHEREAS in each case, a public landowner, as an alternative to a recorded instrument, may meet the maintenance requirement by documenting its obligations in an unrecorded written agreement with the LMRWD;

WHEREAS in accordance with the LMRWD rules and as a condition of approval granted on _____, SMSC perpetual obligation to maintain stormwater facilities must be memorialized in a maintenance agreement specifying requirements and restrictions;

WHEREAS SMSC and the LMRWD execute this Agreement to fulfill the condition of approval granted on _____, and concur that it is binding and rests on mutual valuable consideration;

THEREFORE, SMSC and LMRWD agree as follows that SMSC, at its cost, will inspect and maintain the stormwater facilities as shown in the site plan attached to and incorporated into this Agreement as Exhibit A in perpetuity as follows:

1. STORMWATER FACILITIES

- a. **Reuse basin, and Infiltration/filtration basin.** Reuse basin and infiltration/filtration basin will be inspected annually to ensure continued live storage capacity at or above the design volume. Invasive vegetation, excess sediment and debris will be removed as needed and healthy plant growth will be maintained to ensure that the facilities continue to perform per design.
 - b. **Grit chambers, sump catch basins, sedimentation structures and sump manholes.** Grit chambers, sump catch basins, sedimentation structures and sump manholes will be inspected in the spring, summer and fall of each year. All sediment and debris will be removed as needed such that the stormwater facilities operate as designed and permitted.
2. **Reporting.** SMSC will submit to the LMRWD annually a brief written report that describes stormwater facility maintenance activities performed under this declaration, including dates, locations of inspections and the maintenance activities performed.
3. **Property Transfer.** If SMSC conveys into private ownership a fee interest in the property that is the subject of this Agreement, it shall require as a condition of sale, and enforce: (a) that the purchaser record a declaration on the property incorporating the maintenance requirements of this Agreement; and (b) that recordation occur either before any other encumbrance is recorded on the property or, if after, only as accompanied by a subordination and consent executed by the encumbrance holder ensuring that the declaration will run with the land in perpetuity. If SMSC conveys into public ownership a fee interest in any property that has become subject to this Agreement, it shall require as a condition of the purchase and sale agreement that the purchaser accept an assignment of all obligations vested under this Agreement. In the case of any transfer of ownership or responsibilities under this agreement, SMSC shall notify the LMRWD of the details of the transfer.
4. This Agreement may be amended only in a writing signed by the parties.
5. The recitals are incorporated as a part of this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement.

LOWER MINNESOTA RIVER WATERSHED DISTRICT

By _____ Date:
President, Board of Managers

Shakopee Mdewakanton Sioux Community

By: Keith B. Liden Date: 5/17/23
Its Chairman

By: [Signature] Date: 5/17/23
Its Tribal Operations Administrator

ATTACH EXHIBIT A



Technical Memorandum

To: Linda Loomis, Administrator
Lower Minnesota River Watershed District (LMRWD)

From: Erica Bock, Water Resources Scientist
Hannah LeClaire, PE, Project Manager

Date: July 12, 2023

Re: Peterson Wetland Bank (LMRWD No. 2022-037)

The Peterson Family (the applicant) has applied for an individual project permit from the LMRWD to restore agricultural land to a natural wetland system. Stantec Consulting Services Inc. (Stantec), the engineer for the Peterson Wetland Bank (Project), prepared the application and associated documents.

The proposed wetland easement encompasses several parcels owned by the Peterson Family on the south side of Rice Lake and the north side of the Minnesota River. The easement is primarily in Hennepin County (City of Eden Prairie) with portions in Carver County (City of Chanhassen) and Scott County (City of Shakopee). United States Fish and Wildlife Service (USFWS) land is to the west and east of the site, as shown in Figure 1. The existing site was row cropped for several decades. Starting in 2020, the Petersons stopped farming portions of the parcels and allowed natural vegetation to grow. The Project proposes to restore the easement area to a natural wetland and upland system by disabling the existing drainage ditches that drain north to Rice Lake. The Project is not located in a High Value Resource Area (HVRA) or the Steep Slopes Overlay District, but the project is in the Minnesota River Floodplain. Because the cities of Chanhassen and Eden Prairie do not have their LMRWD municipal local government unit (LGU) permit, and the City of Shakopee does not have their municipal LGU permit for projects within the floodplain, this project requires an LMRWD individual permit. The applicant proposes to commence construction as Minnesota River levels allow in July 2023.

Preliminary review and comments on the Project were provided in November 2022 (Attachment 1) and were addressed as part of this permit application review.

Summary

Project Name: Peterson Wetland Bank

Purpose: Wetland restoration of drained agricultural land to obtain wetland bank credits.

Project Size:

Total Site Area	Disturbed Area	Wetland Bank Credits
218 acres	17.6 acres	180 acres

Location: Parcels East of County Road 101, North of the Minnesota River and South of Rice Lake
44.807187°N, -93.512448°W

LMRWD Rules: Rule B—Erosion and Sediment Control
Rule C—Floodplain and Drainage Alteration

Recommended Board Action: Conditional approval

Discussion

The LMRWD received the following documents for review:

- LMRWD Permit Application; received May 23, 2023.
- Peterson Wetland Bank Project Narrative by Stantec, dated May 23, 2023; received May 23, 2023.
- Peterson Wetland Bank Site Plans by Stantec, dated January 2023; received May 23, 2023.
- Peterson Wetland Bank Stormwater Pollution Prevention Plan (SWPPP) by Stantec, dated May 23, 2023; received May 23, 2023.
- No-Rise Memorandum and Model by Stantec, revised June 21, 2023; received June 21, 2023.
- Wetland Monitoring and Adaptive Management Plan for Peterson Wetland Bank by Stantec, dated January 2023; received June 21, 2023.
- Ownership and easement documents for Parcel ID 279010330, received June 21, 2023
- Site Location Map and Proposed Vegetation Map by Stantec, dated March 2, 2023; received July 5, 2023.
- LMRWD permit application fee of \$1500, received July 12, 2023.

The permit application was deemed completed on July 5, 2023, and the documents received provide the minimum information necessary for permit review.

Rule B – Erosion and Sediment Control

The LMRWD regulates land-disturbing activities that affect one acre or more under Rule B. The proposed project would disturb approximately 17.6 acres within the LMRWD boundary. No impervious area will be constructed or reconstructed as part of the project. The applicant has provided an erosion and sediment control plan and a SWPPP. The project generally complies with Rule B, but the LMRWD will need contact information for the contractor and person(s) responsible for the inspection and maintenance of erosion and sediment control features before it can issue a permit.

Rule C—Floodplain and Drainage Alteration

The LMRWD regulates the placement of fill and alterations to drainageways below the 100-year flood elevation. The project is located in the Minnesota River Floodplain, shown on the FEMA Flood Insurance Rate Map (FIRM), Panel 27053C0420F (effective November 4, 2016). The project disturbs areas within FEMA Zone AE (or the 100-year floodplain) as well as within the floodway. The effective FIRM shows the project at cross sections A, BJ, and BI, with regulatory 100-year elevations of 720.7, 720.5, and 720.5 NAVD88 respectively, as shown in Figure 2.

Shallow grading is proposed using on-site materials to disable the surface drainage ditches by regrading them, so they no longer drain north to Rice Lake, ultimately restoring the site's natural wetland hydrology. The applicant submitted a HEC-RAS model based on the FEMA effective model to evaluate the impact of the proposed project on the floodplain. The proposed conditions model was edited to show proposed grading at the project site, shown in Figure 2. The project proposes no net fill and the model shows no-rise in the 100-year flood elevations. The Project meets the minimum requirements of Rule C.

Recommendations

Based on our review of the project, we recommend conditional approval contingent on receipt of the following:

- Final construction plans signed by a professional engineer.
- Copy of the NPDES Construction Stormwater permit.
- Name and contact information for all contractors undertaking land disturbing activities.
- Name and contact information for the person(s) responsible for erosion and sediment control inspections and maintenance.
- Documentation of approval or applicable permits from the cities of Eden Prairie, Chanhassen, and Shakopee.

Attachments

- Attachment 1—Peterson Wetland Bank Wetland Conservation Act (WCA) Review
- Figure 1—Peterson Wetland Bank Project Location Map
- Figure 2—Proposed Peterson Wetland Bank Grading



Technical Memorandum

To: Linda Loomis, Administrator
Lower Minnesota River Watershed District

From: Erica Bock, Water Resources Scientist
Hannah LeClaire, PE

Cc: Lori Haak, Water Resources Coordinator
City of Eden Prairie

Date: October 26, 2022

Re: Peterson Wetland Bank Application | LMRWD No. 2022-037

On October 3, 2022, the City of Eden Prairie (City) submitted an application review request to the Lower Minnesota River Watershed District (LMRWD) and requested comments on the proposed Peterson Wetland Bank Application (Project). Stantec Consulting Services Inc. (Stantec), the engineer for the Project, prepared the application and associated documents. The proposed wetland easement encompasses several parcels owned by the Peterson Family on the south side of Rice Lake and the north side of the Minnesota River. The easement is primarily in Hennepin County (City of Eden Prairie) with portions in Carver County (City of Chanhassen) and Scott County (City of Shakopee). United States Fish and Wildlife Service land is to the west and east of the site, as shown in Figure 1. The existing site was row cropped for several decades. However, starting in 2020, the Petersons stopped farming portions of the parcels and allowed natural vegetation to grow. The Project proposes to restore the easement area to a natural wetland and upland system by disabling the existing drainage ditches that drain north to Rice Lake. The Project is not located in a High Value Resource Area (HVRA) or the Steep Slopes Overlay District, but the project is in the Minnesota River Floodplain.

Because the cities of Chanhassen and Eden Prairie do not have their LMRWD Municipal LGU permits, this Project will require an LMRWD Individual Project Permit under Rule B—Erosion and Sediment Control for the disturbance of more than one

acre. In addition, the project will require an LMRWD Individual Project Permit under Rule C—Floodplain and Drainage Alteration because the entirety of the site is located within the floodplain. The purpose of this memo is to summarize the preliminary review that Young Environmental Consulting Group LLC has completed in response to the City’s request for comments on the Peterson Wetland Bank application and to provide preliminary recommendations to the prospective applicant.

Summary

Project Name: Peterson Wetland Bank

Purpose: Wetland restoration of drained agricultural land to obtain wetland bank credits

Project Size:

Project Area	Wetland Bank Credit Amount
218 acres	180 acres

Location: 44.807187°N, -93.512448°W

LMRWD Rules: Rule B—Erosion and Sediment Control
Rule C—Floodplain and Drainage Alteration

Recommended Board Action: Information Only

Discussion

The LMRWD received the following documents for review:

- WCA Notice of Application Peterson Wetland Bank, Received October 3, 2022
- Peterson Wetland Bank Mitigation Plan (Full Application), Received October 3, 2022

Rule B—Erosion and Sediment Control

The LMRWD regulates land-disturbing activities that affect one acre or more outside the HVRA District under Rule B. Based on the information provided, the applicant proposes to remove existing drainage ditches on-site by grading them out to blend with the surrounding topography. The proposed grading would disturb a minimum of 18 acres, triggering Rule B.

To comply with Rule B, we recommend the applicant review [LMRWD Rule B](#), Sections 3.4 and 3.5 for further information regarding compliance. Additionally, based on the information submitted and the parcel data available to the LMRWD, there is a

discrepancy regarding the ownership of the parcel in Scott County on the southwest easement of the proposed wetland boundary. The Peterson Wetland Bank Application states that Peterson Farms owns the property, but the available Scott County parcel data shows a different owner. Compliance with Rule B requires the name, address, telephone number, and signature of all property owners.

Rule C—Floodplain and Drainage Alteration

The LMRWD regulates the placement of fill and alterations to drainageways below the 100-year flood elevation. The project is located in the Minnesota River Floodplain, shown on the FEMA Flood Insurance Rate Map (FIRM), Panel 27053C0420F (effective November 4, 2016). The project disturbs areas within FEMA Zone AE (or the 100-year floodplain) as well as within the floodway. The effective FIRM shows the project at cross sections A, BJ, and BI, with regulatory 100-year elevations of 720.7, 720.5, and 720.5 NAVD88 respectively, as shown in Figure 2. Shallow grading is proposed using on-site materials to disable the surface drainage ditches by regrading them so they no longer drain north to Rice Lake, restoring the site's natural wetland hydrology. To comply with Rule C, the applicant must provide a no-rise certification signed by a professional engineer and a supporting hydraulic model to demonstrate that the proposed grading would not result in a loss of flood conveyance capacity nor cause a rise in the 100-year flood elevation of the Minnesota River. We recommend the applicant review [LMRWD Rule C](#), Sections 4.4 and 4.5 for further information regarding compliance.

Recommendations

No board action is required at this time. As presented, Peterson Wetland Bank must obtain an LMRWD Individual Project permit before the start of construction activities for the applicable LMRWD rules. The full wetland bank application provided helpful insight into the project plans and details. We offer the following summarized comments to the applicant to help facilitate the permit review process:

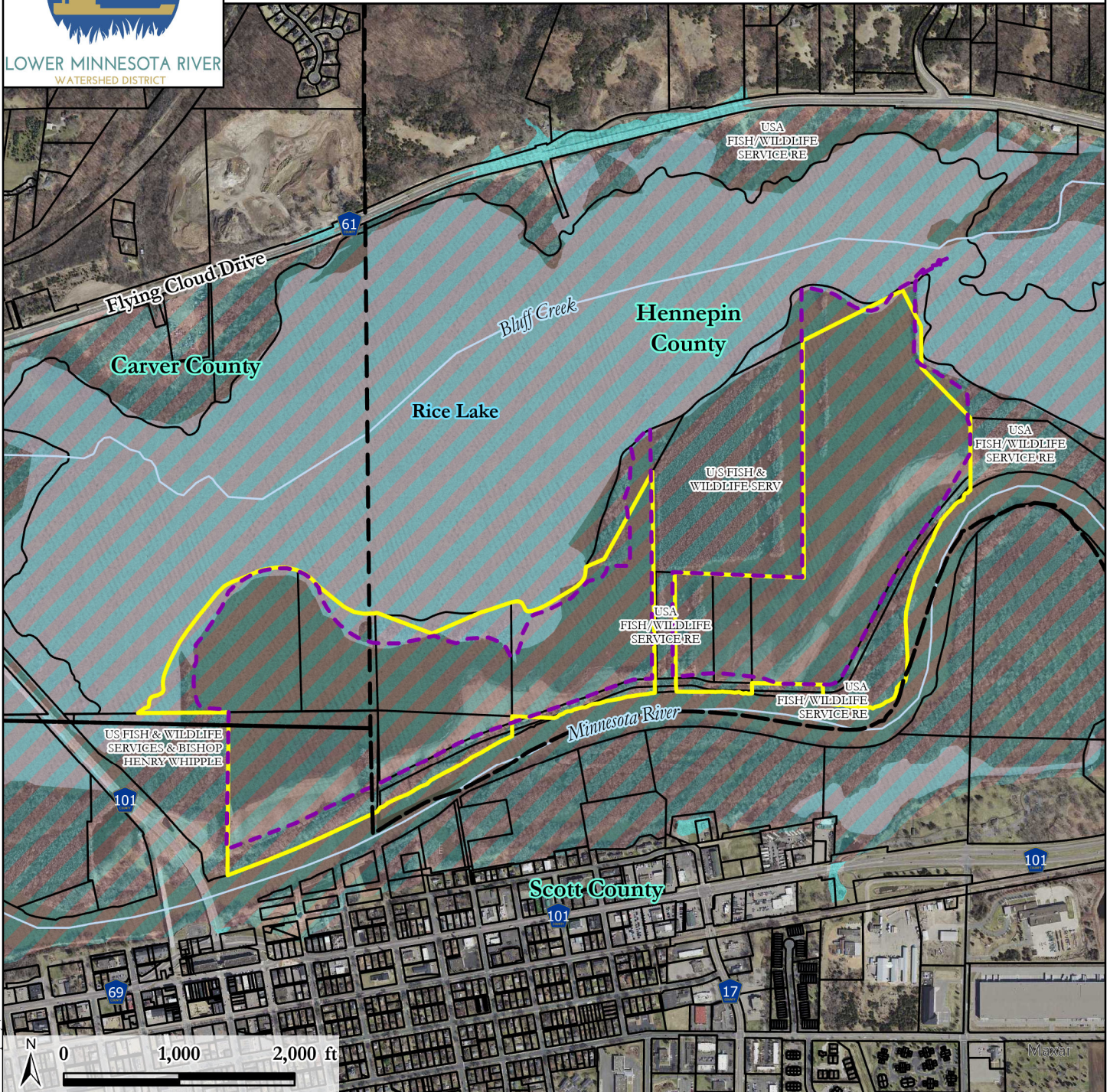
- Review LMRWD [Rule B](#) and [Rule C](#), especially the “Criteria” and “Required Information” and “Exhibits” sections to determine the requirements for compliance.
- Clarify proposed easement ownership. Scott County parcel data show the proposed bank area is owned by several entities. Compliance with Rule B requires the name, address, phone number, and signature of all property owners.
- For compliance with LMRWD Rule C, provide a no-rise certification signed by a professional engineer and a supporting hydraulic model to demonstrate that the proposed grading would not result in a loss of flood conveyance capacity nor cause a rise in the 100-year flood elevation of the Minnesota River.
- The LMRWD encourages early coordination for complex projects and suggests scheduling a pre-application meeting to discuss the LMRWD permitting process and requirements.

Attachments

- Figure 1—Peterson Wetland Bank Project Location Map
- Figure 2—Proposed Project Grading



Figure 1: Peterson Wetland Bank Project Location
LMRWD No. 2022-037



Legend

- | | | | |
|--|---------------------------|--|-------------------|
| | Project Location | | Parcels |
| | Public Waters | | 100-yr Floodplain |
| | Public Waterbodies | | Floodway |
| | Proposed Wetland Easement | | County Boundary |

LMRWD Watershed Location Map

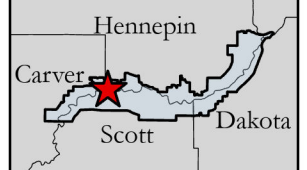
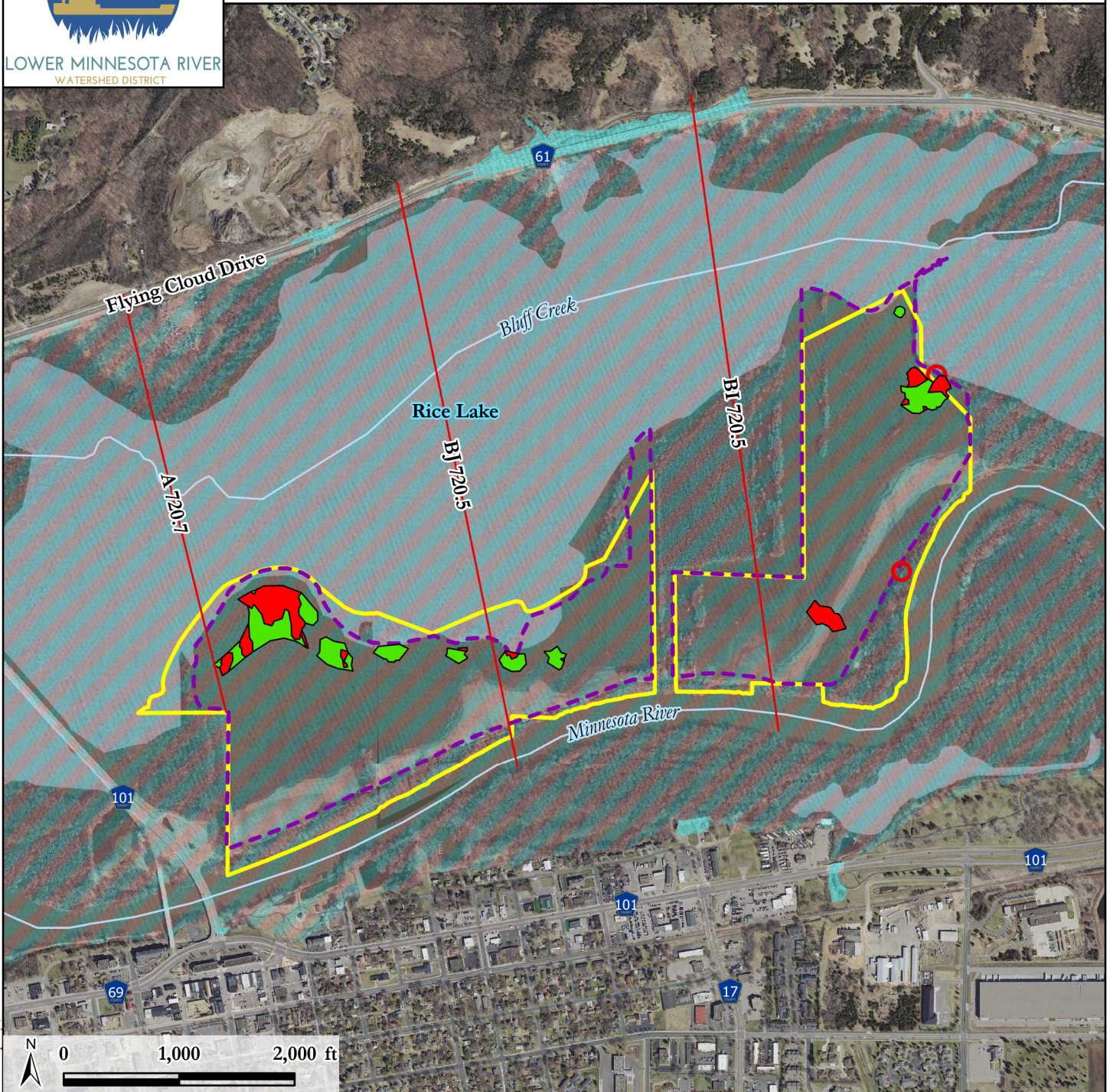




Figure 2: Peterson Wetland Bank Project Location
LMRWD No. 2022-037



Legend

- | | | | |
|--|--------------------|--|---------------------------|
| | Project Location | | Proposed Wetland Easement |
| | FEMA Cross Section | | Cut |
| | Public Waters | | Fill |
| | Public Waterbodies | | 100-yr Floodplain |
| | Culvert Removal | | Floodway |

LMRWD Watershed Location Map



Technical Memorandum

To: Linda Loomis, Administrator
Lower Minnesota River Watershed District (LMRWD)

From: Karina Weelborg, Water Resources Scientist
Hannah LeClaire, PE, Project Manager

Date: July 12, 2023

Re: KTI Fencing Property (LMRWD No. 2023-014)

KTI Fencing (the applicant) has applied for an individual project permit from the LMRWD to improve a commercial site for outdoor storage of fencing materials at 12478 Xenwood Avenue South in Savage, MN (shown in Figure 1). The applicant's engineer, Windsor Engineers, has provided site plans for the KTI Fencing Property Project (Project) along with the permit application.

The proposed project consists of constructing a paved storage area and parking lot as well as a filtration basin and drainage swales. The project would disturb approximately 1.5 acres and create 0.67 acres of new impervious surfaces. The project is not located within a High Value Resource Area or the Steeps Slopes Overlay District, but it is in the Credit River Floodplain. The applicant proposes to begin construction on August 14, 2023.

Because the City of Savage does not have its LMRWD municipal permit, this project requires an LMRWD individual permit.

Summary

Project Name: KTI Fencing Property

Purpose: Construction of outside storage, a parking lot, filtration basin, and drainage swales.

Project Size:

Area Disturbed	Existing Impervious Area	Proposed Impervious Area	Net Increase Impervious Area
1.3 acres	0.3 acres	0.97 acres	0.67 acres

Location:

12478 Xenwood Avenue South
Savage, MN 55378

LMRWD Rules:

Rule B – Erosion and Sediment Control
Rule C – Floodplain and Drainage Alteration

Recommended Board Action: Conditional approval

Discussion

The LMRWD received the following documents for review:

- LMRWD Stormwater Report by Windsor Engineers; dated June 21, 2023; received June 21, 2023.
- LMRWD Individual Project Permit application by KTI fencing; dated June 9, 2023; received June 21, 2023.
- Engineering Plan Set by Windsor Engineers; dated February 24, 2022; revised June 21, 2023; received June 21, 2023.
- Pre- and Post-Drainage Exhibits by Windsor Engineers; dated February 24, 2022; revised October 4, 2022; received June 21, 2023.
- FEMA Map; dated February 12, 2021; received June 21, 2023.
- HydroCAD Report by Halling Engineering; dated February 24, 2022; received June 21, 2023.
- Purchase Agreement by Timothy L Gillitzer; dated May 17, 2021; received June 21, 2023.
- Credit River Model; received June 6, 2023.
- LMRWD Permit Application Fee of \$750, received July 6, 2023.
- Resolution Approving Vacation of a Portion of 124th Street Extending East of Xenwood Avenue by City of Savage; dated May 16, 2023; received July 10, 2023.
- Resolution Approving a Conditional Use Permit to Allow Outdoor Storage at 12475 Xenwood Avenue, Project 21-48 by City of Savage; dated May 16, 2023; received July 10, 2023.
- Vacation Sketch for City of Savage by Bohlen Surveying & Associates; dated October 26, 2022; received July 10, 2023.

The application was deemed complete on July 6, 2023, and the documents received provide the minimum information necessary for permit review.

Rule B – Erosion and Sediment Control

The LMRWD regulates land-disturbing activities that affect one acre or more under Rule B. The proposed project would disturb approximately 1.5 acres within the LMRWD boundary. The project proposes the creation of 0.67 acres of new impervious surface for a total of 0.97 acres of impervious surface on site. The applicant has provided an erosion and sediment control plan and a Stormwater Pollution Prevention Plan (SWPPP). The project does not trigger rule D; however, to meet City of Savage requirements, the applicant has proposed constructing a filtration basin on the southeast corner of the property and drainage swales along 124th street. The project generally complies with Rule B, but a copy of the National Pollutant Discharge Elimination System (NPDES) construction stormwater permit and contact information for the contractor and person responsible for erosion and sediment control measures are needed before the LMRWD can issue a permit.

Rule C – Floodplain and Drainage Alteration

The project is located in the Credit River Floodplain, shown on Scott County Flood Insurance Rate Map (FIRM) Panel 27139C0063E (effective 2/12/2021). The effective FIRM shows the entire project area in FEMA Zone AE (or the 100-year floodplain); however, there are no cross sections in the Credit River effective FEMA HEC-RAS model that extend into the project area. This area of the Credit River Floodplain is mapped due to breakout flows that occur at the Quentin Ave South and railroad crossings located southeast of the project site (Figure 2). The 100-year floodplain elevation—according to the FIRM Panel—is approximately 729.0 and is based on interpolation of the water surface caused by the breakout flows.

Because the project area is beyond the extents of the cross sections in the effective FEMA model and will not affect the conveyance of the Credit River, the impacts to the floodplain were evaluated based on cut and fill quantities occurring below the 100-year floodplain elevation. The applicant provided a proposed grading plan that shows a net fill of zero cubic yards within the floodplain. There are no proposed buildings as part of this project; therefore, the freeboard requirement does not apply. The project meets the minimum requirements of Rule C.

Recommendations

Based on review of the project, we recommend conditional approval contingent on the receipt of the following:

- Copy of the NPDES construction stormwater permit.
- Contact information for the contractor(s).

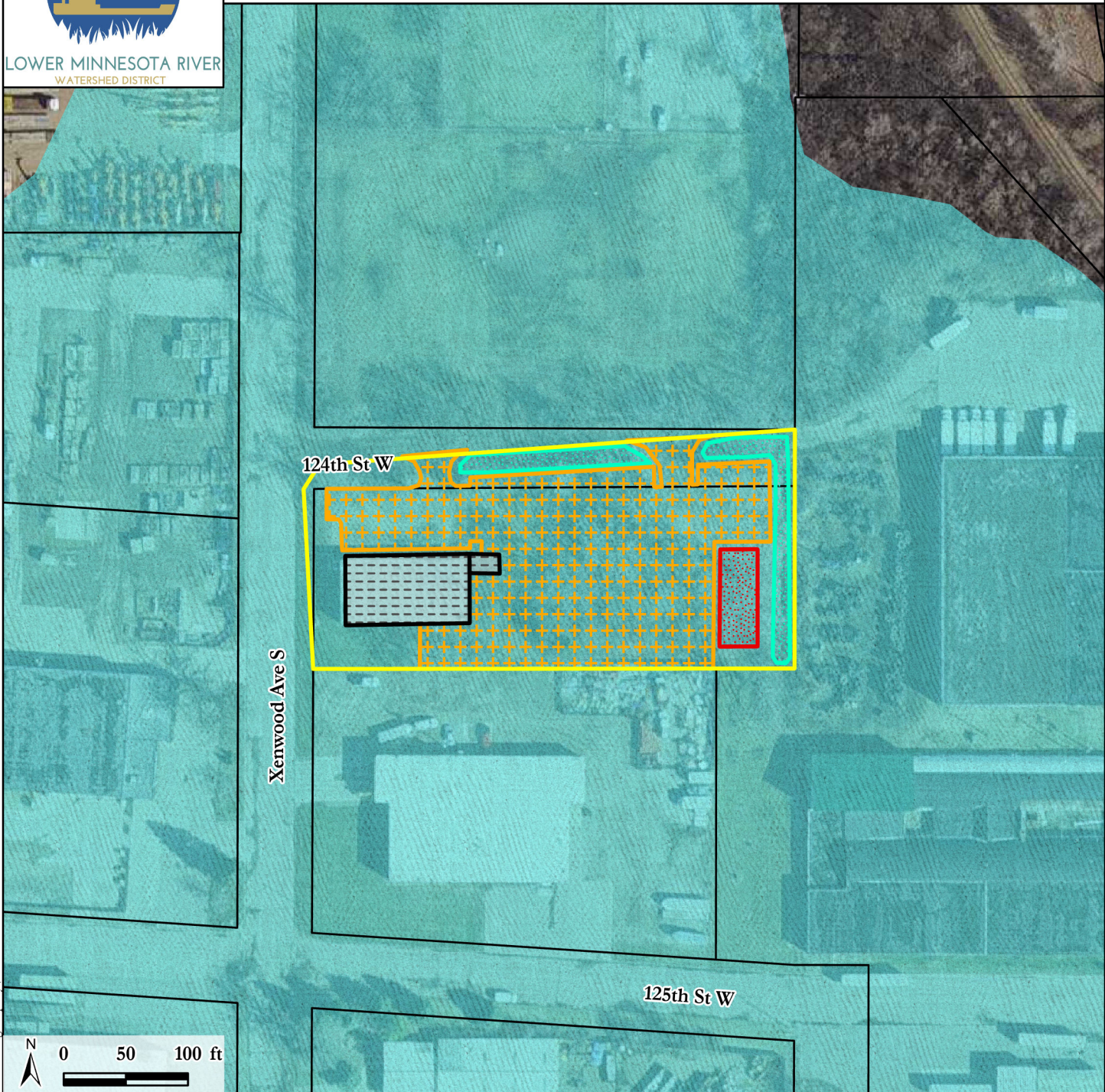
- Contact information for the person(s) responsible for erosion and sediment control measures.
- Documentation that the applicant has received full approval for the project from the City of Savage.

Attachments








- Figure 1— KTI Fencing Property Project Location Map
- Figure 2 – KTI Fencing Credit River Floodplain



Figure I: KTI Fencing Project Location
LMRWD No. 2023-014



Legend

- | | |
|--|---|
|  Project Location |  Proposed Swale |
|  Existing Impervious |  100-yr Floodplain |
|  Proposed Filtration Basin |  Parcels |
|  Proposed Impervious | |

LMRWD Watershed Location Map

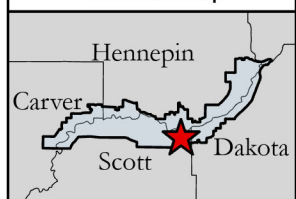
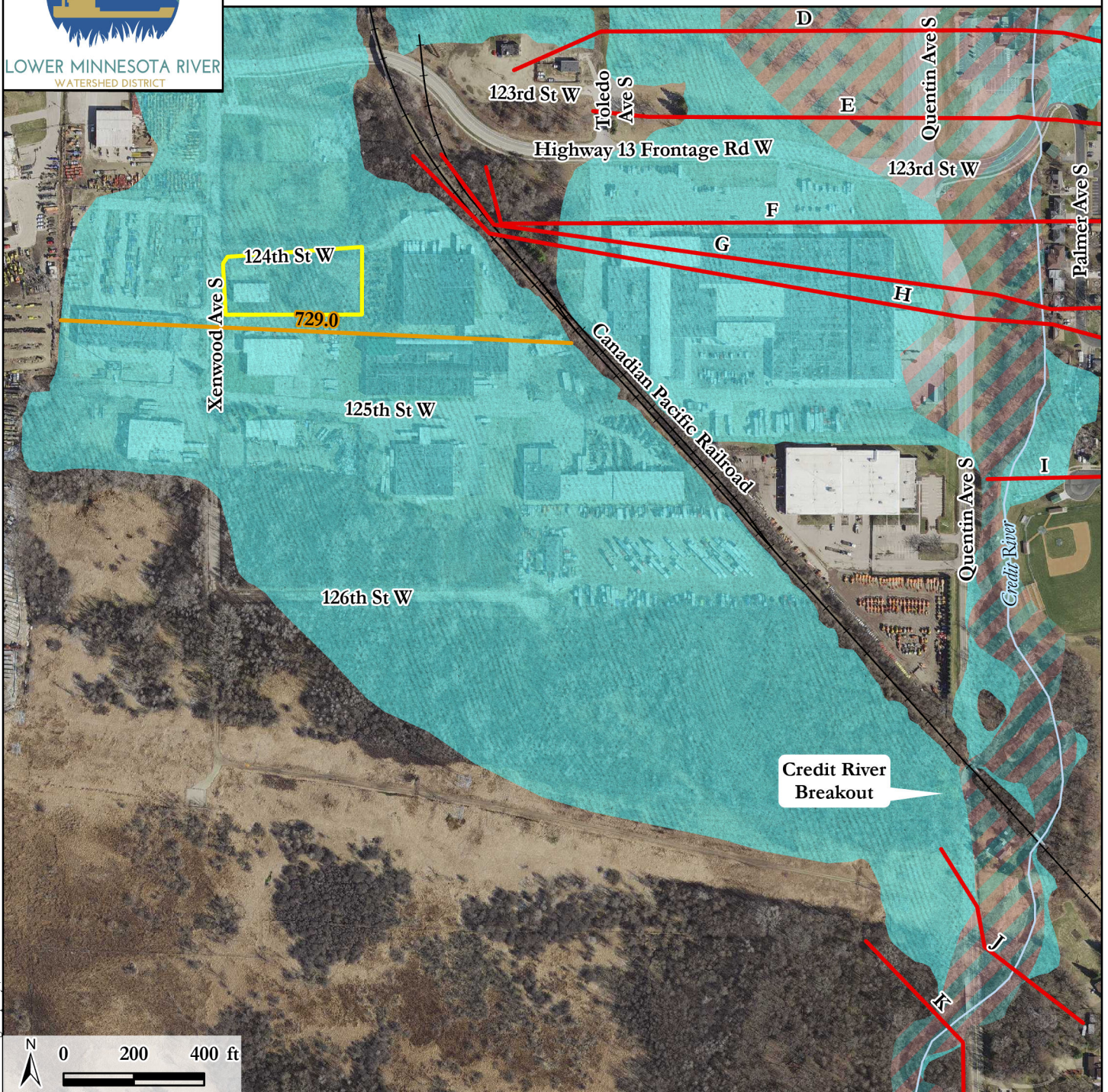




Figure 2: KTI Fencing - Credit River Floodplain
LMRWD No. 2023-014



Legend

- | | | | |
|--|-----------------------------------|--|-------------------|
| | Project Location | | Public Waters |
| | Credit River Floodplain Elevation | | Railroads |
| | FEMA Cross Sections | | 100-yr Floodplain |
| | | | Floodway |

LMRWD Watershed Location Map





Technical Memorandum

To: Linda Loomis, Administrator
Lower Minnesota River Watershed District (LMRWD)

From: Karina Weelborg, Water Resources Scientist
Hannah LeClaire, PE, Project Manager

Date: July 12, 2023

Re: Bloomington Storm Sewer Maintenance (LMRWD No. 2023-015)

The City of Bloomington (City) has applied for an individual project permit from the LMRWD to perform maintenance on the City's storm sewers and address associated gully erosion. The City is performing maintenance at 12 locations throughout the City. Two locations, Site D and Site F, are within the LMRWD and Minnesota River Floodplain. The remainder of the projects are in the Nine Mile Creek Watershed District. The City has provided site plans for all proposed maintenance along with the permit application. The City of Bloomington has its LMRWD Municipal permit, except for projects that trigger Rule C—Floodplain and Drainage Alteration; therefore the project requires an LMRWD individual project permit.

Site D is located at 11624 Palmer Road in Bloomington, Minnesota (Figure 1). The project proposes to replace an existing culvert outfall and stabilize the downstream gully that conveys stormwater to Coleman Lake in the Minnesota River Floodplain. Site F is located at 2401 West 112th Street in Bloomington, MN (Figure 2). The project proposes to stabilize the gully at the culvert outfall by abandoning the existing outfall and rerouting the culvert to discharge to Nine Mile Creek (approximately 800 feet east of the existing outfall). Both Site D and Site F were identified as part of the LMRWD 2020 gully inventory, and both were given a high erosion potential score and high priority ranking. Attachment 1 includes photos of the gullies from intern field surveys in 2020 and 2023. The applicant opened the entire project for construction bids in mid-June with proposed construction completed for all sites by the end of October 2023. Work at Site D and F will not begin until the LMRWD permit is issued.

Summary

Project Name: City of Bloomington Storm Sewer Maintenance

Purpose: Replace storm sewer pipes and outfalls and restore area erosion.

Project Size:

Area Disturbed	Existing Impervious Area	Proposed Impervious Area	Net Increase Impervious Area
1,343 sq ft	0	0	0

Location:

Site D: 11624 Palmer Rd
Bloomington, MN 55437
Site F: 2401 West 112th St
Bloomington, MN 55431

LMRWD Rules: Rule C – Floodplain and Drainage Alteration

Recommended Board Action: Conditional approval

Discussion

The LMRWD received the following documents for review:

- LMRWD permit application, dated May 17, 2023; received May 25, 2023.
- 90% construction plans by the City of Bloomington, dated May 8, 2023; received May 25, 2023.
- Project narrative by Steve Gurney, dated May 23, 2023; received May 25, 2023.
- Minnesota Wetland Conservation Act Notice of Application; dated May 30, 2023, received May 30, 2023.
- Site D plans by City of Bloomington, dated May 8, 2023; received June 13, 2023.
- Site F plans by City of Bloomington, dated May 8, 2023; received June 13, 2023.
- Email narrative describing site disturbance by Steve Gurney, dated June 13, 2023; received June 13, 2023.

The application was deemed complete on June 15, 2023, and the documents received provide the minimum information necessary for permit review.

Rule C – Floodplain and Drainage Alteration

Site D and Site F are in the Minnesota River Floodplain, shown on the Hennepin County Flood Insurance Rate Map (FIRM) Panel 27053C0462F (effective date 11/04/2016). The effective FIRM shows the project in FEMA Zone AE (or the 100-year floodplain). Site D is near cross section AH with a 100-year flood elevation of 717.3 feet NGVD 29. Site F is between cross sections AB and AA with a 100-flood elevation of 716.2 feet NGVD 29.

Site D disturbs 968 square feet within the floodplain. The project proposes to replace the existing 24" corrugated metal pipe (CMP) with a 24" corrugated aluminized steel (CAS) pipe and to stabilize the eroded gully with a riprap drainage channel. All riprap and fill will be placed below the existing grade to preserve floodplain storage. Site F disturbs 2,300 square feet within the floodplain. The project proposes to abandon the existing outfall and restore the eroded gully by regrading the slopes to 3H:1V or flatter. The City estimates that 75 cubic yards of soil has eroded from the gully, which is greater than the 10 cubic yards of topsoil that they will bring in to restore site. Additionally, Site F includes the installation of new storm sewer and outfall discharging to Nine Mile Creek. Area disturbed during storm sewer installation will be returned to existing grade, and riprap at the new outfall will be placed below existing grade to maintain floodplain storage at Site F.

The project proposes no net fill, and all ground alterations will be kept below existing grade according to the grading plans submitted by the City. Therefore, modeling and a no-rise certificate were not required. The applicant has stated that the contractor will be responsible for creating a water management plan for sediment and erosion control. The project generally meets the requirements of Rule C; however, the applicant must submit the water management plan with erosion and sediment control measures before the LMRWD can issue a permit.

Recommendations

Based on review of the project, we recommend conditional approval contingent on the receipt of the following:

- Final construction plans signed by a professional engineer.
- Name and contact information for all contractors undertaking land-disturbing activities.
- Name and contact information for the person(s) responsible for erosion control inspections and maintenance.
- Copy of the contractor's water management plan with erosion and sediment control measures.
- Copy of approved Minnesota Department of Natural Resources (MnDNR) permit.

Attachments

- Attachment 1—Gully Inventory Photos
- Figure 1—Site D Project Location Map
- Figure 2— Site F Project Location Map

Attachment 1 – Site D and Site F Photos from Gully Inventories



1. Site D

Attachment 1 – Site D and Site F Photos from Gully Inventories



2. Site D

Attachment 1 – Site D and Site F Photos from Gully Inventories



3. Site D

Attachment 1 – Site D and Site F Photos from Gully Inventories



4. Site D

Attachment 1 – Site D and Site F Photos from Gully Inventories



5. Site D

Attachment 1 – Site D and Site F Photos from Gully Inventories



6. Site F

Attachment 1 – Site D and Site F Photos from Gully Inventories



7. Site F

Attachment 1 – Site D and Site F Photos from Gully Inventories



8. Site F

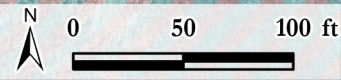
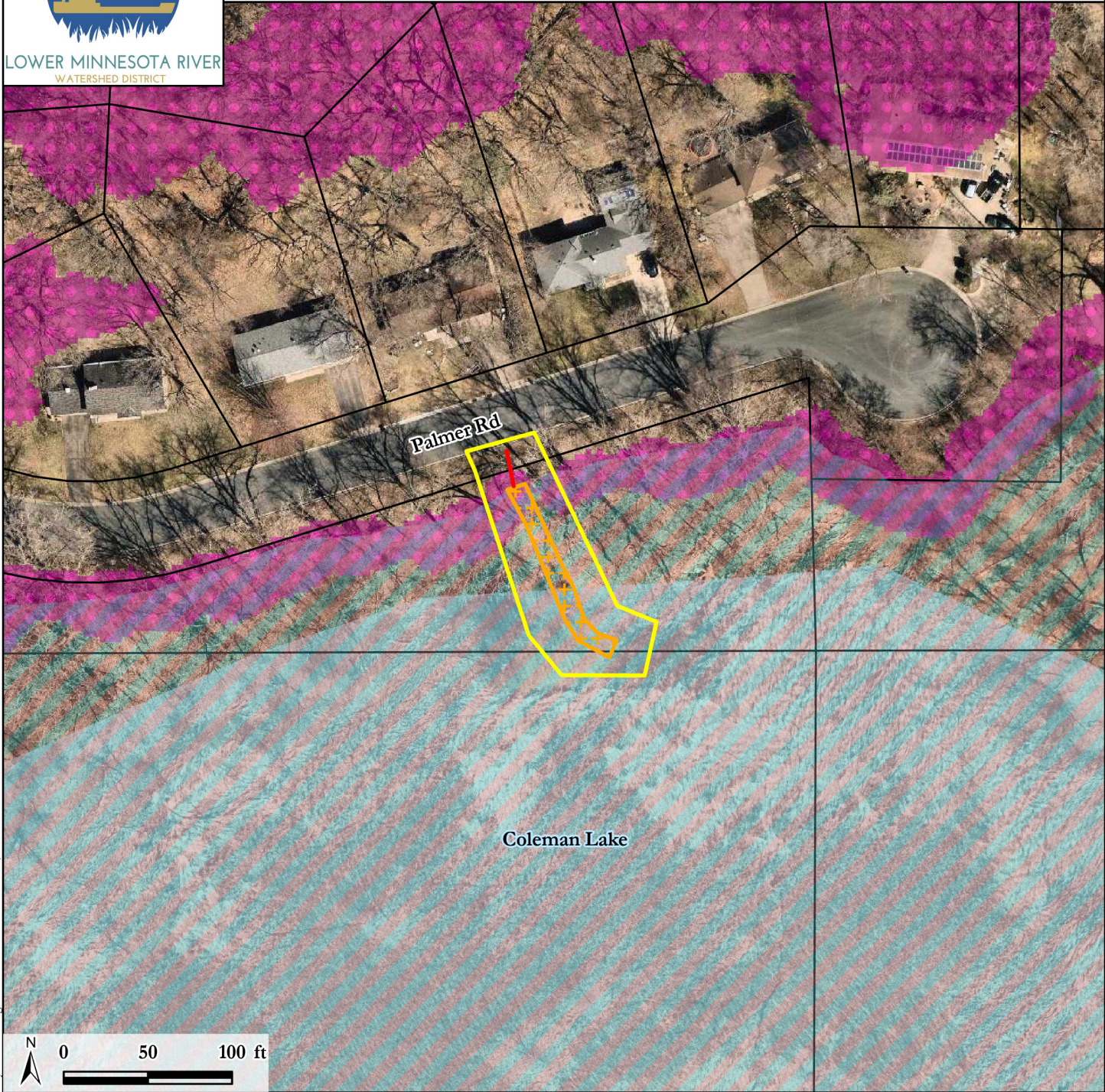
Attachment 1 – Site D and Site F Photos from Gully Inventories



9. Site F



Figure I: City of Bloomington Storm Sewer Maintenance Project Location
Site D LMRWD No. 2023-015



Legend

- | | | | |
|--|-------------------------|--|------------------------------|
| | Project Location | | Steep Slope Overlay District |
| | Proposed RipRap Channel | | Public Waterbodies |
| | Floodway | | Remove Storm Pipe |
| | Parcels | | |

LMRWD Watershed Location Map

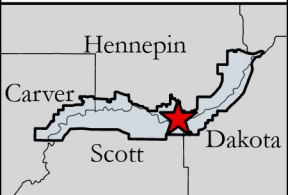
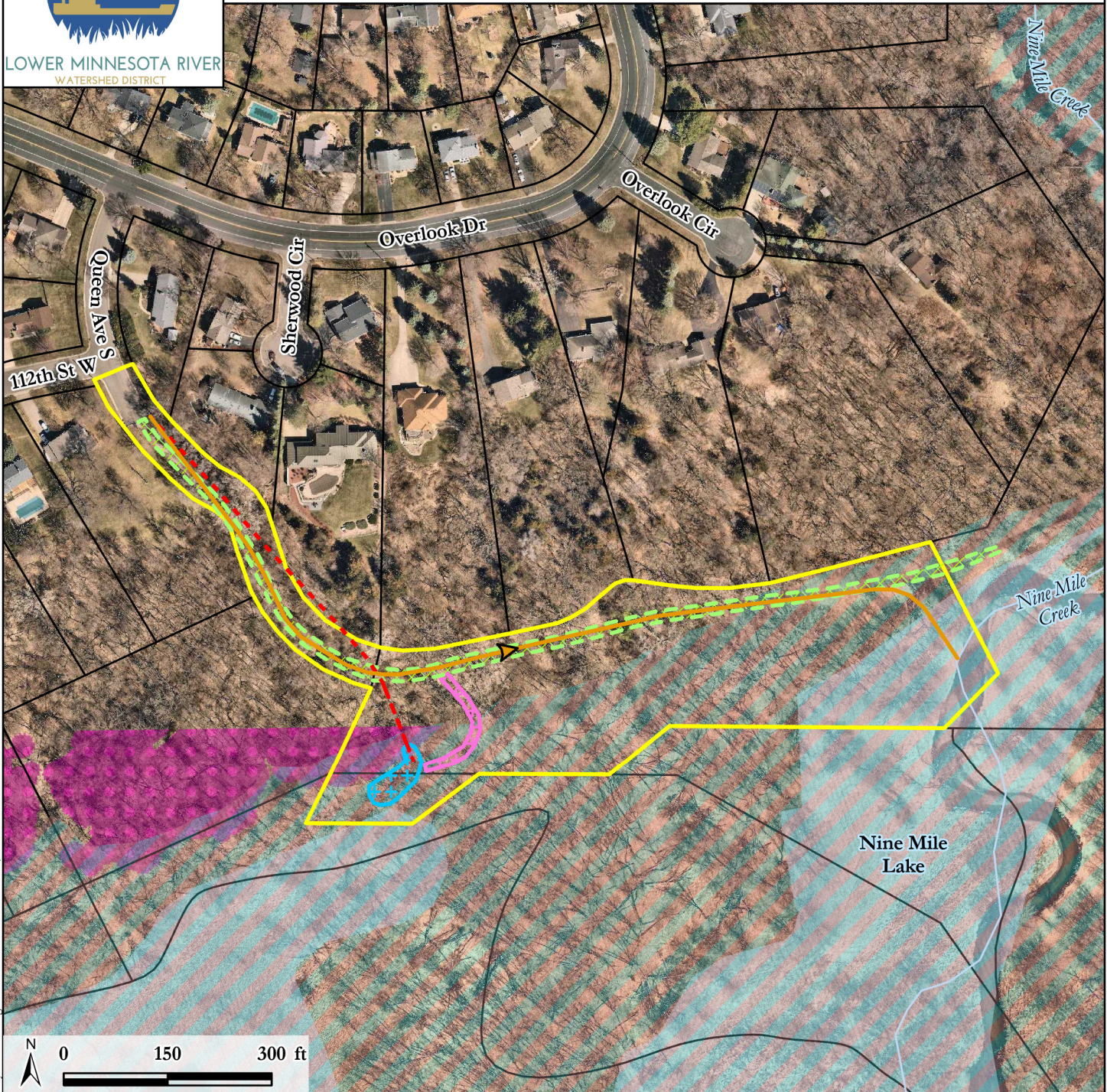




Figure 2: City of Bloomington Storm Sewer Maintenance Project Location
Site F LMRWD No. 2023-015



Legend

- | | | | |
|--|----------------------|--|------------------------------|
| | Project Location | | Restore Gully |
| | Abandon RCP | | Public Waters |
| | Install RCP | | Public Waterbodies |
| | Remove CMP | | Floodway |
| | Existing Trail | | Parcels |
| | Washout Access Route | | Steep Slope Overlay District |

LMRWD Watershed Location Map





Technical Memorandum

To: Linda Loomis, Administrator
Lower Minnesota River Watershed District (LMRWD)

From: Karina Weelborg, Water Resources Scientist
Hannah LeClaire, PE, Project Manager

Date: July 12, 2023

Re: Chaska Tech Center – Amendment (LMRWD No. 2023-008)

At the April 2023 Board meeting, the LMRWD conditionally approved a permit application by Elliott Design Build, Inc., for the Chaska Tech Center project (Project), shown in Attachment 1. Following receipt of the conditional approval materials, a permit was issued on May 15, 2023.

The proposed project consists of constructing an office building, warehouse, and associated parking. The project would disturb approximately 3.72 acres and create 2.74 acres of new impervious surfaces. The project is not located within the High Value Resource Area, Steep Slopes Overlay District, or floodplain, as shown in Figure 1. The applicant contacted the LMRWD on June 28, 2023, notifying the LMRWD of the need to change the project's stormwater management plan due to a State of Minnesota Plumbing Code decision that does not allow storm sewer pipes or structure inverts below the site's high-water level. To accommodate this requirement, a small portion of the site drainage will be directed toward Chaska Boulevard, as shown in Figure 2, and the remainder of the site will drain toward the proposed infiltration basin through a surface gutter system rather than storm sewer pipes. The applicant provided updated construction plans, an updated stormwater management plan, and updated stormwater modeling for review. Project construction commenced in late May 2023 but was put on pause until the plumbing permit and amended watershed district permit are issued.

This project has been reevaluated for continued compliance with the applicable LMRWD Rules. **Bold Text** indicates changes from the April permit review.

Summary

Project Name: Chaska Tech Center

Purpose: Construction of an office and warehouse building with associated parking on a vacant lot in Chaska, MN.

Project Size:

Area Disturbed	Existing Impervious Area	Proposed Impervious Area	Net Increase Impervious Area
3.72 acres	0 acres	2.74 acres	2.74 acres

Location: 2930 Chaska Boulevard, Chaska, MN 55318

LMRWD Rules: Rule B – Erosion and Sediment Control
Rule D – Stormwater Management

Recommended Board Action: **Approval**

Discussion

The LMRWD received the following conditional approval items:

- Executed maintenance agreement recorded with Carver County by Lariat Companies, Inc.; dated May 10, 2023; received June 1, 2023.
- Public Waters Work Permit by Minnesota Department of Natural Resources (MnDNR); dated May 1, 2023; received May 9, 2023.
- National Pollutant Discharge Elimination System (NPDES) approval by Minnesota Pollution Control Agency (MPCA); dated April 17, 2023; received May 9, 2023.
- Executed purchase agreement by City of Chaska and Lariat Companies, Inc; dated March 21, 2023; received May 9, 2023.
- United States Army Corps of Engineers (USACE) Letter by Dan Reburn; dated March 16, 2023; received May 9, 2023.

The LMRWD received the following documents for amendment review on June 29, 2023:

- Updated construction plans by Design Elliott Build, Inc; dated January 3, 2022; revised June 27, 2023; received June 29, 2023.
- Updated Stormwater Management Plan by Design Elliott Build, Inc; dated May 1, 2023; revised June 29, 2023; received June 29, 2023.
- Updated HydroCAD model by Design Elliott Build, Inc; dated June 29, 2023;

received June 29, 2023.

- Updated Minimal Impact Design Standards (MIDS) model by Design Elliott Build, Inc; dated January 23, 2023; revised June 29, 2023; received June 29, 2023.

The documents received provide the minimum information necessary for **an amendment permit review**.

Rule B – Erosion and Sediment Control

The LMRWD regulates land-disturbing activities that affect one or more acres under Rule B. The proposed project would disturb approximately 3.72 acres within the LMRWD boundary. The applicant has provided an erosion and sediment control plan and a Stormwater Pollution Prevention Plan. The contractors and person responsible for the inspection and maintenance of erosion and sediment control features are:

Amcon Construction
Ron Blum
6121 Baker Road, Suite 101
Minnetonka, MN 55345
954-237-7874
rblum@amconconstruction.com

Kusske Construction
582 Bavaria Lane
Chaska, MN 55318
952-448-3321

The permittee submitted a copy of the NPDES Construction Stormwater Permit.
The project complies with Rule B.

Rule D – Stormwater Management

The LMRWD regulates land-disturbing activities that create new or reconstructed impervious areas greater than one acre. The project proposes 2.74 acres of new impervious surface. The applicant is proposing to construct an infiltration basin to meet the LMRWD stormwater management requirements.

Section 5.4.1 of Rule D requires applicants to demonstrate no increase in proposed runoff rates compared with existing conditions. **The applicant has changed the area that drains to the proposed infiltration basin. Previously, all site runoff was directed to the infiltration basin. Under the proposed permit amendment, 3.15 acres of the site will be routed to the infiltration basin and 0.55 acres will be directed toward Chaska Boulevard, southeast of the site.**

The applicant submitted a HydroCAD analysis demonstrating the proposed infiltration basin will provide rate control for the Project. The existing and proposed rates are

provided in Table 1. The reported runoff rates show a decrease from existing conditions, meeting the LMRWD's rate control requirements.

Table 1. Rate Control Summary

Design Event (24-hour)	Existing Rates (cfs*)		Proposed Rates (cfs)		Change (cfs)		
	Basin	Chaska Blvd	Basin	Chaska Blvd	Basin	Chaska Blvd	Total
2-year	1.56	0.81	0.00	1.94	-1.56	+1.13	-0.43
10-year	4.22	2.19	0.54	3.06	-3.68.16	+0.87	-2.81
100-year	11.93	6.20	11.76	5.61	-0.17	-0.59	-0.76

*cubic feet
per second
(cfs)

Prior to 2019, most of the property was impervious area, and approximately 2.25 acres of impervious area discharged directly to Chaska storm sewer under Chaska Boulevard. In 2019, the site was regraded to be pervious area, which is the existing condition that the permittee used to evaluate stormwater management on site. Given this information, the permittee confirmed that Chaska storm sewer has the capacity to handle the increase in discharge shown in Table 1 because prior to 2019, the storm sewer was handling discharges that were higher than the new proposed conditions. The reported runoff rates for the total site area show no increase from existing conditions for the 2-, 10-, and 100-year storms, meeting the rate control requirements of Rule D.

Section 5.4.2 of Rule D requires stormwater runoff volume reduction on site to be equivalent to one inch of runoff from new or reconstructed impervious surface. The project proposes 2.74 acres (119,354 square feet) of new impervious surface. Therefore, the project must provide 0.228 acre-feet (9,946 cubic feet). The LMRWD does not allow infiltration in areas of predominantly Hydrologic Soil Group (HSG) D. Fill soils were encountered within the proposed infiltration basin to a depth of 5 to 8 feet. The fill soils of two of the soil borings showed HSG D soils, but the underlying soils were sandy soils. The applicant proposes to provide excess volume capacity within the infiltration basin and perform on-site infiltration testing during construction to account for the potential of HSG D soils. If minimum infiltration rates cannot be achieved on site, removal of the clay layer and replacement with appropriate soils will be required. This will be included as a special stipulation in the LMRWD permit. The applicant submitted a HydroCAD analysis demonstrating a volume reduction of **0.419 acre-feet (18,245 cubic feet)**. The project's volume control is greater than required and complies with Rule D volume requirements.

Section 5.4.3 of Rule D requires a no-net-increase in total phosphorus (TP) or total suspended solids (TSS) to receiving waterbodies compared to existing conditions. The applicant submitted a **revised MIDS model** to demonstrate water quality analysis. The results are presented in **Table 2**. As presented, the pollutant load would be reduced by **35%** for both TP and TSS. Therefore, the project meets the water quality requirements established under Rule D.

Table 2. Water Quality Summary

	TP (lb/yr)	TSS (lb/yr)
Existing	1.3488	245
Proposed	0.8822	160.3
Difference	0.4666	84.7
Percent Reduction	35%	35%

The applicant provided a copy of the executed maintenance agreement on July 1, 2023, recorded with Carver County.

Recommendations

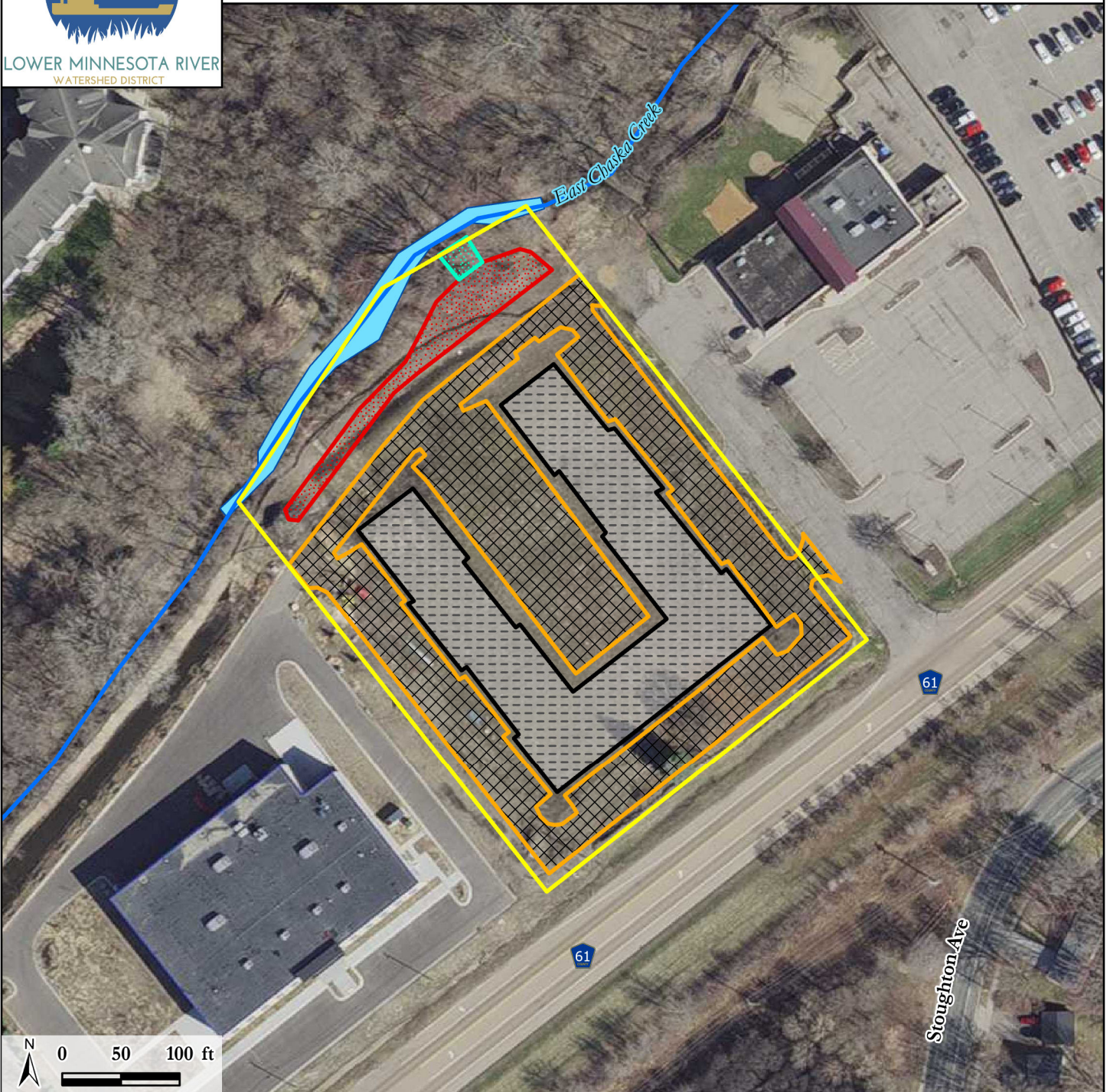
Based on our review of the project, we recommend approval of the permit amendment. The amended permit will retain the special stipulation requiring field verification of the infiltration rates of the proposed infiltration basin. If minimum infiltration rates cannot be achieved on site, removal of the clay layer and replacement with appropriate soils will be required.

Attachments

- Figure 1 – Chaska Tech Center Project Location LMRWD No. 2023-008
- Figure 2 – Chaska Tech Center Drainage Amendment
- Attachment 1 – Chaska Tech Center Permit Review Memo, dated April 12, 2023



Figure I: Chaska Tech Center Project Location
LMRWD No. 2023-008



Legend

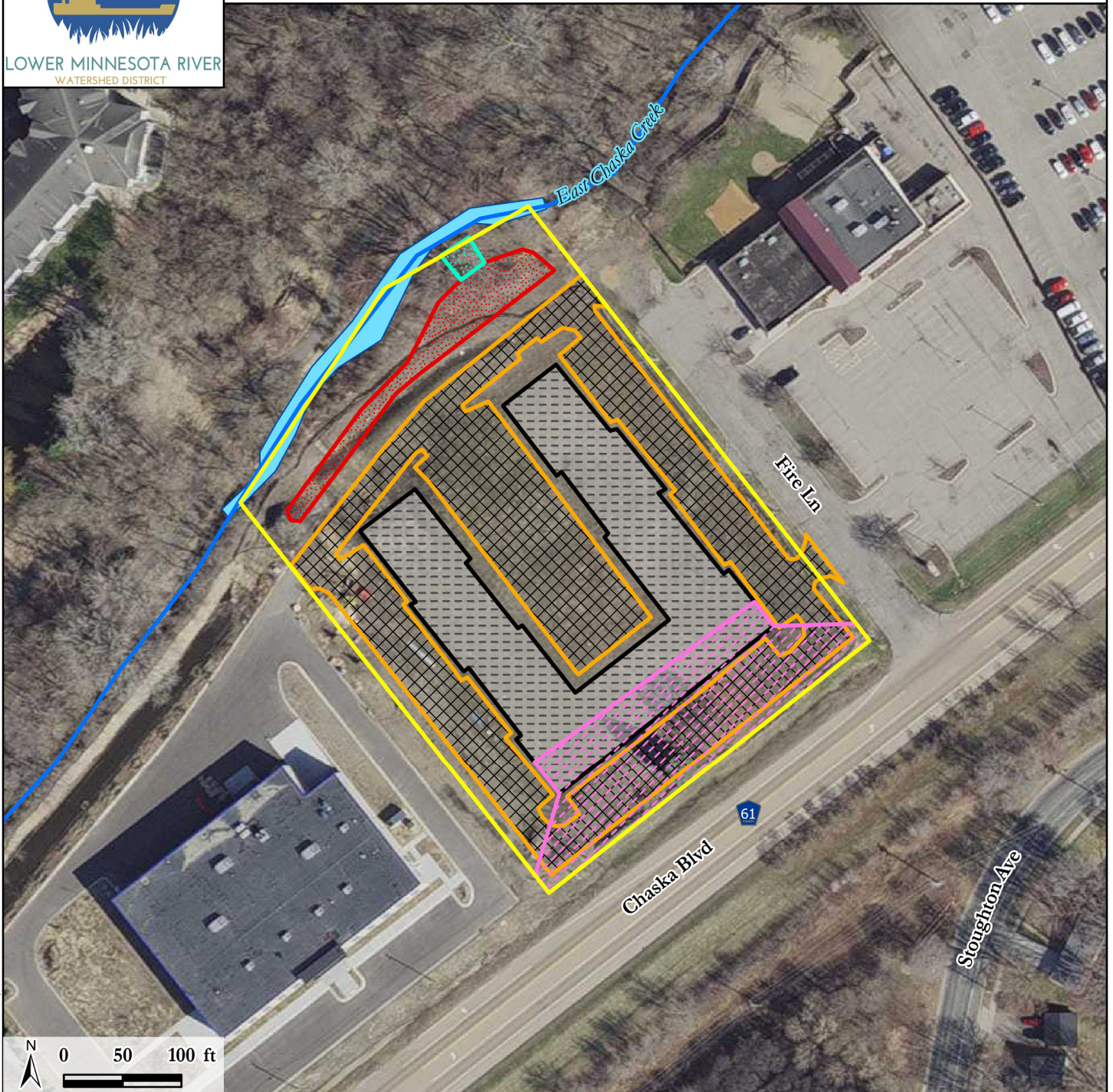
- | | |
|-----------------------------|----------------------|
| Project Location | Proposed Parking Lot |
| Proposed Building | East Chaska Creek |
| Proposed EOF | East Chaska Creek |
| Proposed Infiltration Basin | |

LMRWD Watershed Location Map





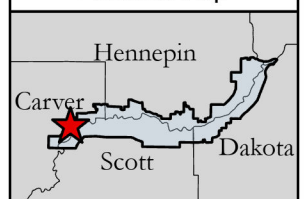
Figure 2: Chaska Tech Center Drainage Amendment
LMRWD No. 2023-008



Legend

- | | |
|-------------------------|-----------------------------|
| Project Location | Proposed EOF |
| Drainage to Chaska Blvd | Proposed Infiltration Basin |
| East Chaska Creek | Proposed Parking Lot |
| Proposed Building | East Chaska Creek |

LMRWD Watershed Location Map





Technical Memorandum

To: Linda Loomis, Administrator
Lower Minnesota River Watershed District (LMRWD)

From: Karina Weelborg, Water Resources Scientist
Hannah LeClaire, PE, Project Manager

Date: April 12, 2023

Re: Chaska Tech Center (LMRWD No. 2023-008)

Lariat Companies, Inc. (the applicant) has applied for an individual project permit from the Lower Minnesota River Watershed District to develop an office/warehouse facility on an undeveloped lot in the City of Chaska (City), as shown in Figure 1. The applicant's engineer, Elliott Design Build, has provided site plans for the Chaska Tech Center Project (Project) along with the permit application.

The proposed project consists of constructing an office building, warehouse, and associated parking. The project would disturb approximately 3.72 acres and create 2.74 acres of new impervious surfaces. The project is not located within the High Value Resource Area, Steep Slopes Overlay District, or floodplain. The applicant proposes to commence construction on May 1, 2023.

Because the City does not have its LMRWD Municipal Permit, this project requires an LMRWD individual permit.

Summary

Project Name: Chaska Tech Center

Purpose: Construction of an office and warehouse building with associated parking on a vacant lot in Chaska, MN.

Project Size:

Area Disturbed	Existing Impervious Area	Proposed Impervious Area	Net Increase Impervious Area
3.72 acres	0 acres	2.74 acres	2.74 acres

Location:

2930 Chaska Blvd, Chaska, MN 55318

LMRWD Rules:

Rule B – Erosion and Sediment Control
Rule D – Stormwater Management

Recommended Board Action:

Conditional approval

Discussion

The LMRWD received the following documents for review:

- LMRWD permit application, received March 3, 2023
- Chaska Tech Center Stormwater Pollution Prevention Plan (SWPPP) by Elliott Design Build, Inc.; dated February 20, 2023; received February 24, 2023
- Stormwater Management Submittal for Chaska Tech Center by Elliott Design Build, Inc.; revised February 23, 2023; received February 24, 2023
- Existing Condition Survey by Amcon Construction, dated April 5, 2022
- Drainage Maps by Elliott Design Build, Inc.; dated January 3, 2022; revised April 5, 2022; received February 24, 2023
- HydroCAD Report 1-, 2-, 10-, and 100-Year by LG; dated January 24, 2023; received February 24, 2023
- MIDS Calculator Results – Existing by Lance Elliott; dated September 28, 2022; received February 24, 2023
- MIDS Calculator Results - Proposed by Lance Elliott; dated January 3, 2023; received February 24, 2023
- Soils Report by Terracon Consultants, Inc.; dated October 1, 2021; received February 24, 2023
- Storm Pipe Drainage Map; received February 24, 2023
- Stormwater Review of Chaska Tech Center by Dan Edgerton; Dated May 4, 2022
- Overlay Plan (Landscape and Site Utilities) by Elliott Design Build, Inc.; dated January 3, 2022; revised March 22, 2023; received March 22, 2023
- Landscape Plan by Elliott Design Build, Inc.; dated January 3, 2022; revised March 22, 2023; received March 22, 2023
- Chaska Tech Center MIDS file by Elliott Design Build, Inc; dated January 23, 2023, received March 24, 2023

- Draft Maintenance Agreement by Elliott Design Build, Inc.; received March 31, 2023
- Grading and Erosion Control Plan by Elliott Design Build, Inc.; dated January 3, 2022; revised March 22, 2023; received March 31, 2023
- Site Utilities and Stormwater by Elliott Design Build; dated January 3, 2022; revised March 22, 2023; received March 31, 2023

The application was deemed complete on March 22, 2023, and the documents received provide the minimum information necessary for permit review.

Rule B – Erosion and Sediment Control

The LMRWD regulates land-disturbing activities that affect one or more acres under Rule B. The proposed project would disturb approximately 3.72 acres within the LMRWD boundary. The applicant has provided an erosion and sediment control plan and a Stormwater Pollution Prevention Plan. The contractors and person responsible for the inspection and maintenance of erosion and sediment control features are:

Amcon Construction
Ron Blum
6121 Baker Rd Suite 101
Minnetonka, MN 55345
954-237-7874
rblum@amconconstruction.com

Kusske Construction
582 Bavaria Lane
Chaska, MN 55318
952-448-3321

The project generally complies with Rule B, but a copy of the National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit is needed before the LMRWD can issue a permit.

Rule D – Stormwater Management

The LMRWD regulates land-disturbing activities that create new or reconstructed impervious areas greater than one acre. The project proposes 2.74 acres of new impervious surface. The applicant is proposing to construct an infiltration basin to meet the LMRWD stormwater management requirements.

Section 5.4.1 of Rule D requires applicants to demonstrate no increase in proposed runoff rates compared with existing conditions. The applicant submitted a HydroCAD

analysis demonstrating the proposed infiltration basin will provide rate control for the Project. The existing and proposed rates are provided in **Table 1**. The reported runoff rates show a decrease from existing conditions, meeting the LMRWD's rate control requirements.

Table 1. Rate Control Summary

Design Event	Existing Rates (cfs)	Proposed Rates (cfs)	Change (cfs)
2-year/24-hour	2.38	0.02	-2.36
10-year/24-hour	6.41	0.92	-5.49
100-year/24-hour	18.12	13.54	-4.58

Section 5.4.2 of Rule D requires stormwater runoff volume reduction on-site to be equivalent to one inch of runoff from new or reconstructed impervious surface. The project proposes 2.74 acres (119,354 square feet) of new impervious surface. Therefore, the project must provide 0.228 acre-feet (9,946 cubic feet). The LMRWD does not allow infiltration in areas of predominantly Hydrologic Soil Group (HSG) D. Fill soils were encountered within the proposed infiltration basin to a depth of 5 to 8 feet. The fill soils of two of the soil borings showed HSG D soils, but the underlying soils were sandy soils. The applicant proposes to provide excess volume capacity within the infiltration basin and perform infiltration testing on-site during construction to account for the potential of HSG D soils.

If minimum infiltration rates cannot be achieved on-site, removal of the clay layer and replacement with appropriate soils will be required. This will be included as a special stipulation in the LMRWD permit. The applicant submitted a HydroCAD analysis demonstrating a volume reduction of 0.429 acre-feet (18,254 cubic feet). The project's volume control is greater than required and complies with Rule D volume requirements.

Section 5.4.3 of Rule D requires a no-net-increase in total phosphorus (TP) or total suspended solids (TSS) to receiving waterbodies compared to existing conditions. The applicant submitted a MIDS model to demonstrate water quality analysis. The results are presented in **Table 2**. As presented, the pollutant load would be reduced by 91% for both TP and TSS. Therefore, the project meets the water quality requirements established under Rule D.

Table 2. Water Quality Summary

	TP (lb/yr)	TSS (lb/yr)
Existing	1.3488	245
Proposed	0.1152	21
Difference	1.2336	224

Percent Reduction	91%	91%
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The applicant provided a draft stormwater facilities maintenance agreement with the City of Chaska; however, the applicant is required to submit a copy of the executed maintenance agreement, recorded with Carver County, before the LMRWD can issue a permit.

Recommendations

Based on our review of the project, we recommend conditional approval contingent on the receipt of the following:

- Copy of the NPDES Construction Stormwater Permit
- Copy of executed maintenance agreement recorded with Carver County
- Copy of applicable Minnesota Department of Natural Resources (MnDNR) and US Army Corp of Engineers (USACE) permits
- Copy of the executed purchase agreement

A special stipulation in the final LMRWD permit will require field verification of the infiltration rates of the proposed infiltration basin. If minimum infiltration rates cannot be achieved on-site, removal of the clay layer and replacement with appropriate soils will be required.

Attachments

- Figure 1 – Chaska Tech Center Project Location LMRWD No. 2023-008

Technical Memorandum

To: Linda Loomis, Administrator
Lower Minnesota River Watershed District (LMRWD)

From: Karina Weelborg, Water Resources Scientist
Hannah LeClaire, PE, Project Manager

cc: Brent Alcott, City of Chaska

Date: July 12, 2023

Re: LMRWD— City of Chaska Stormwater Requirement Updates Review

The City of Chaska (City) is updating its Local Surface Water Management Plan (LSWMP) Section 5.3.2 Design Standards to be consistent with its Municipal Separate Storm Sewer System (MS4) permit requirements. On June 22, 2023, the City requested comments on these updates. Young Environmental Consulting Group (Young Environmental) reviewed the updated LSWMP Section 5.3.2 Design Standards and provided comments on behalf of the LMRWD. The updated LSWMP was compared with LMRWD Rules to better understand how the LMRWD and the City can work together to protect, preserve, and manage water resources within the LMRWD. Below is a summary of Young Environmental's review of the Design Standards section and our recommendations.

Erosion and Sediment Control

Section 5.3.2.1 Submittal Requirements, Section 5.3.2.2 Erosion and Sediment Control, and Section 5.3.2.4 Stormwater Quantity contain information relevant to the LMRWD's Rule B—Erosion and Sediment Control. Table 1 lists LSWMP sections and LMRWD recommendations for erosion and sediment control.

Table 1. LSWMP Erosion and Sediment Control Recommendations

LSWMP Section	LMRWD Recommendation
Section 5.3.2.1 Submittal Requirements Subsection 8 – presents City requirements for erosion and sediment control plans	City requirements match LMRWD Rule B requirements for erosion and sediment control plans
Section 5.3.2.1 Submittal Requirements	City requirements match LMRWD Rule B

Subsection 9 – requires wetland delineation	requirements for wetlands in erosion and sediment control plans
Section 5.3.2.1 Submittal Requirements Subsection 10 – states applications must meet Floodplain and Shoreland Ordinances	It is recommended that the City require delineation of any floodplain changes in erosion and sediment control plans as listed in LMRWD Rule B.5.2.G
Section 5.3.2.2 Erosion and Sediment Control – adopts and incorporates Minnesota’s Construction Stormwater General Permit by reference	The City’s requirements match LMRWD Rule B regulatory standards and requirements for general areas. It is recommended that the City provide additional amendments to include the LMRWD’s stricter requirements for High Value Resource Areas (HVRA) listed in Rule B.3.2.B.
Section 5.3.2.4 Stormwater Quantity Subsection 25 – requires 6” of topsoil in all green spaces and general soil decompaction	It is recommended that the City require decompaction to a depth of 18” as listed in LMRWD Rule B.3.4.3.B

Stormwater Management

Section 5.3.2.1 Submittal Requirements, , Section 5.3.2.4 Stormwater Quantity, Section 5.3.2.5 Stormwater Quality, and Section 5.3.2.6 Stormwater Abstraction contain information relevant to the LMRWD’s Rule D – Stormwater Management. Table 2 lists LSWMP sections and LMRWD recommendations for stormwater management.

Table 2. LSWMP Stormwater Management Recommendations

LSWMP Section	LMRWD Recommendation
Section 5.3.2.1 Submittal Requirements Subsection 7 – presents City requirements for stormwater management plans	The City’s requirements for stormwater management plans match or exceed the LMRWD’s standards and requirements.
Section 5.3.2.4 Stormwater Quantity – presents City requirements for rate control	The City’s requirements for rate control match or exceed the LMRWD’s standards requirements.
Section 5.3.2.5 Stormwater Quality – presents City’s water quality requirements	The City’s total phosphorus (TP) and total suspended solid requirements (TSS) match or exceed the LMRWD’s standards and requirements for TP and TSS reduction. It is recommended that the City provide additional amendments to include the LMRWD’s stricter requirements for High Value Resource Areas (HVRA), such as trout

	waters, as listed in LMRWD Rule D.5.4.3.B.
Section 5.3.2.6 Stormwater Abstraction Subsections 2 and 3 - presents City's volume retention requirements	The City's requirements for volume retention generally match the LMRWD standards and requirements for general areas. It is recommended that the City provide additional amendments to include the LMRWD's stricter requirements for the HVRAs.
Section 5.3.2.6 Stormwater Abstraction Subsection 4 – presents City's requirements for infiltration	It is recommended that the City also provide restrictions for areas within the LMRWD Steep Slopes Overlay District as listed in Rule D.5.4.3.C

Recommendations

We greatly appreciate the opportunity to review the amendments to the City's LSWMP Section 5.3.2 Design Standards. The City is to be commended for its efforts to protect our water resources. In general, the LMRWD supports the adoption of the amendments to Section 5.3.2; however, the LMRWD recommends the following amendments to the LSWMP before adoption:

- Provide stricter erosion and sediment control and stormwater management regulatory standards and requirements for HVRAs and the Steep Slopes Overlay District.
- Require floodplain delineation in erosion and sediment control plans.
- Require deeper decompaction of compacted soils.



July 6, 2023

Direct Dial: 320-656-3503
Jkolb@RinkeNoonan.com

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Joslin & Moore Law Offices, P.A.
221 2nd Avenue NW
Cambridge, MN 55008

SENT VIA EMAIL: CJOSLIN@JOSLINMOORE.COM & U.S. MAIL

**Re: Lower Minnesota River Watershed District vs. Eco Real Estate Holdings LLC, et. al
Our File No. 25226-0012**

Dear Mr. Joslin:

At its meeting on June 21, 2023, the Board of Managers of the Lower Minnesota River Watershed District instructed me to withdraw our prior indefinite extension to serve and answer in the above matter. Our agreement, as outlined in a January 3, 2023, email exchange, was to provide you and your client the extension to answer subject to rescission on 20 days' notice, and provided your client initiated and pursued actions to correct the alleged violations of District rules, permit requirements and performance standards. The Board noted a failure of your client to diligently pursue resolution as its reason for withdrawing the extension. As I understand our agreement, we should expect an answer within 20 days. If we do not receive an answer in the above matter within 20 days of your receipt of this letter, we will file our action and seek a default judgment from the court.

Sincerely,

/s/ John C. Kolb

John C. Kolb
JCK/cmt

cc: LMRWD Board of Managers, c/o Linda Loomis (email only: naiadconsulting@gmail.com)
MacKenzie Young-Walters, City of Chanhassen (email only: mwalters@chanhassenmn.gov)