RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT
Fund Performance Analysis - Table 1
December 31, 2019

Items	From Fund Performance Analysis - Table 1 May 31, 2021	Transfers that occurred or are suggested during 2021		From July Treasurer's Report Table 1			FY 2022 Budget Funding Sources				
	2021 Budget	Fund Transfers	Revised 2021 Budget	Actual Spent Year-to-Date	Year to Date Percent of Budget	Projected End of Year Remaining	Projected Carry Over Budget	Grants	Partners & Other Sources	Proposed 2022 Levy	Proposed 2022 Budget
REVENUES											
Plan Implementation Levy	$ 3,575,000	$ -	$ 3,575,000		0.00%	$ -	$ -	$ -	$ -	$ 3,640,581	$ 3,640,581
Permit	$ 25,000	$ -	$ 25,000		0.00%	$ -	$ -	$ -	$ 25,000	$ -	$ 25,000
Grant Income	$ 272,580	$ -	$ 272,580		0.00%	$ -	$ -	$ 71,933	$ -	$ -	$ 71,933
Investment Income	$ 30,000	$ -	$ 30,000		0.00%	$ -	$ -	$ -	$ 30,000	$ -	$ 30,000
Past Levies (Carry Overs)	$ 3,204,427	$ -	$ 3,204,427		0.00%	$ -	$ -	$ -	$ -	$ -	$ 3,355,058
Miscellaneous Income	$ -	$ -	$ -		---	$ -	$ -	$ -	$ -	$ -	$ -
Reimbursements			$ -			$ -	$ -	$ -	$ -	$ -	$ -
Partner Funds	$ 451,000	$ -	$ 451,000		0.00%	$ -	$ -	$ -	$ 272,000	$ -	$ 272,000
TOTAL REVENUE	**$ 7,558,007**	**$ -**	**$ 7,558,007**	**$ -**	**0.00%**	**$ -**	**$ -**	**$ 71,933**	**$ 327,000**	**$ 3,640,581**	**$ 7,394,572**
EXPENDITURES											
Administration											
Audit	$ 15,000		$ 15,000	$ 14,400	96.00%					$ 15,000	$ 15,000
Accounting	$ 31,000	$ -	$ 31,000	$ 19,366	62.47%	$ -	$ -			$ 45,000	$ 45,000
Advisory Committees	$ 7,000	$ -	$ 7,000	$ -	0.00%	$ -	$ -			$ 5,000	$ 5,000
Insurance and bonds	$ 18,000	$ -	$ 18,000	$ 414	2.30%	$ -	$ -			$ 21,000	$ 21,000
Engineering Services	$ 112,000	$ -	$ 112,000	$ 66,783	59.63%	$ -	$ -			$ 132,000	$ 132,000
Legal Services	$ 84,000	$ -	$ 84,000	$ 43,697	52.02%	$ -	$ -			$ 108,000	$ 108,000
Manager Per Diem/Expense	$ 30,000	$ -	$ 30,000	$ 9,544	31.81%	$ -	$ -			$ 30,000	$ 30,000
Dues and Publications	$ 16,000	$ -	$ 16,000	$ 9,006	56.29%	$ -	$ -			$ 16,000	$ 16,000
Office Cost	$ 190,000	$ -	$ 190,000	$ 69,589	36.63%	$ -	$ -			$ 191,000	$ 191,000
Permit Review and Inspection	$ 140,000	$ -	$ 140,000	$ 94,689	67.64%	$ -	$ -			$ 160,000	$ 160,000
Permit and Grant Database	$ -	$ -	$ -	$ 10,750	#DIV/0!	$ -	$ -			$ 30,000	$ 30,000
Professional Services	$ 10,000	$ -	$ 10,000	$ 12,336	---	$ -	$ -			$ 17,400	$ 17,400
Recording Services	$ 15,000	$ -	$ 15,000	$ 7,500	50.00%	$ -	$ -			$ 15,500	$ 15,500
Staff Cost	$ 802,054	$ -	$ 802,054	$ 247,177	30.82%	$ 130,000	$ 130,000			$ 659,681	$ 789,681
Subtotal	**$ 1,470,054**	**$ -**	**$ 1,470,054**	**$ 605,251**	**41.17%**	**$ 130,000**	**$ 130,000**	**$ -**	**$ -**	**$ 1,445,581**	**$ 1,575,581**
Programs and Projects											
District Wide											
10-year Management Plan	$ 10,000	$ -	$ 10,000	$ 4,349	43.49%	$ -	$ -			$ 80,000	$ 80,000
AIS Inspection and early response	$ 85,000	$ -	$ 85,000	$ 14,018	16.49%	$ 15,000	$ 15,000			$ 53,000	$ 68,000
Cost-share/ Stewardship Grant	$ 346,735	$ -	$ 346,735	$ 52,605	15.17%	$ 110,000	$ 110,000			$ 100,000	$ 260,000
Data Collection and Monitoring	$ 193,000	$ -	$ 193,000	$ 137,913	71.46%	$ -	$ -			$ 213,000	$ 213,000
Community Resiliency	$ 111,058	$ -	$ 111,058	$ 7,597	6.84%	$ 30,000	$ 30,000	$ 40,000		$ 60,000	$ 130,000
Education and Outreach	$ 100,834	$ -	$ 100,834	$ 14,897	14.77%	$ 71,000	$ 71,000			$ 29,000	$ 100,000
Plant Restoration - U of M	$ 61,613	$ -	$ 61,613	$ 9,475	15.38%	$ 50,000	$ 50,000			$ -	$ 50,000
Repair and Maintenance Fund	$ 212,540	$ (113,000)	$ 99,540	$ 170	0.17%	$ 100,000	$ 100,000			$ -	$ 100,000
Wetland Management*	$ 111,248	$ -	$ 111,248	$ 94,715	85.14%	$ -	$ -			$ 157,000	$ 157,000
Groundwater Conservation* (120 K Grant and Pilot Project timing)	$ 229,444	$ -	$ 229,444	$ 450	0.20%	$ 220,000	$ 220,000			$ -	$ 220,000
Lake Vegetation Implementation	$ 83,083	$ -	$ 83,083	$ 12,828	15.44%	$ 13,000	$ 13,000			$ 63,000	$ 76,000
Opportunity Project*	$ 317,480	$ (217,000)	$ 100,480	$ -	0.00%	$ 100,000	$ 100,000			$ 150,000	$ 250,000
Stormwater Ponds - U of M	$ 67,164	$ -	$ 67,164	$ 36,719	54.67%	$ 20,000	$ 20,000			$ -	$ 20,000
Hennepin County Chloride Initiative	$ 92,971	$ -	$ 92,971	$ 4,975	5.35%	$ 90,000	$ 90,000			$ -	$ 90,000
Lower Minnesota Chloride Cost-Share	$ 217,209	$ -	$ 217,209	$ -	0.00%	$ 195,000	$ 195,000			$ -	$ 195,000
Subtotal	**$ 2,239,379**	**$ (330,000)**	**$ 1,909,379**	**$ 390,711**	**20.46%**	**$ 1,014,000**	**$ 1,014,000**	**$ 40,000**	**$ -**	**$ 905,000**	**$ 2,009,000**
Bluff Creek											
Bluff Creek Tributary*	$ 7,251	$ -	$ 7,251	$ -	0.00%	$ 2,000	$ 2,000			$ 3,000	$ 5,000
Wetland Restoration at Pioneer	$ 665,285	$ -	$ 665,285	$ 63,663	9.57%	$ 447,000	$ 447,000	$ 31,933		$ -	$ 478,933
Bluff Creek B5 by Galpin	$ 140,000	$ -	$ 140,000	$ -		$ 120,000	$ 120,000			$ -	$ 120,000
Subtotal	**$ 812,536**	**$ -**	**$ 812,536**	**$ 63,663**	**7.84%**	**$ 569,000**	**$ 569,000**	**$ 31,933**	**$ -**	**$ 3,000**	**$ 603,933**
Riley Creek											
Lake Riley - Alum Treatment*	$ 62,885	$ -	$ 62,885	$ -	0.00%	$ 43,000	$ 20,000			$ -	$ 20,000
Rice Marsh Lake in-lake phosphorus load	$ 45,636	$ -	$ 45,636	$ 4,159	9.11%	$ 26,000	$ 26,000			$ -	$ 26,000
Rice Marsh Lake Water Quality Improvement Phase 1	$ 634,147	$ -	$ 634,147	$ 56,272	8.87%	$ 149,000	$ 149,000		$ 5,000	$ 74,000	$ 228,000
Riley Creek Restoration (Reach E and D3)	$ 107,047	$ -	$ 107,047	$ 9,235	8.63%	$ 78,000	$ 78,000			$ -	$ 78,000
Lake Riley & Rice Marsh Lake Subwatershed Pond Assessment	$ -	$ -	$ -	$ -	#DIV/0!	$ -	$ -			$ -	$ -
Upper Riley Creek Stabilization	$ 902,025	$ -	$ 902,025	$ 27,441	3.04%	$ 847,000	$ 847,000			$ 600,000	$ 1,447,000
Middle Riley Creek	$ 192,363	$ 352,000	$ 544,363	$ 72,457	13.31%	$ -	$ -		$ 58,000	$ 3,000	$ 61,000
Lake Ann Wetland Restoration	$ 50,000	$ (50,000)	$ -		#DIV/0!	$ -	$ -			$ -	$ -
St Hubert Water Quality Project	$ 147,063	$ -	$ 437,284	$ 78,054	17.85%	$ 31,000	$ 31,000		$ 15,000	$ -	$ 46,000
Subtotal	**$ 2,141,166**	**$ 302,000**	**$ 2,733,387**	**$ 247,618**	**9.06%**	**$ 1,174,000**	**$ 1,151,000**	**$ -**	**$ 78,000**	**$ 677,000**	**$ 1,906,000**
Purgatory Creek											
Purgatory Creek Rec Area- Berm/retention area - Design/Construction	$ 34,899	$ 113,000	$ 147,899	$ 4,635	3.13%	$ 113,000	$ 113,000		$ 112,000	$ -	$ 225,000
Lotus Lake in-lake phosphorus load control	$ 79,226	$ -	$ 79,226		0.00%	$ 80,000	$ 80,000			$ -	$ 80,000
Silver Lake Water Quality BMP	$ 207,208	$ -	$ 207,208	$ 38,830	18.74%	$ 46,000	$ 46,000			$ -	$ 46,000
Scenic Heights	$ 92,041	$ (85,000)	$ 7,041	$ 2,983	42.37%	$ 4,058	$ 4,058			$ -	$ 4,058
Hyland Lake in-lake phosphorus load control	$ 20,000	$ -	$ 20,000	$ -	0.00%	$ 20,000	$ 20,000			$ -	$ 20,000
Duck Lake Watershed Load	$ 32,120	$ -	$ 32,120	$ 4,376	13.62%	$ 25,000	$ 25,000			$ -	$ 25,000
Mitchell Lake Subwatershed Pond Assessment	$ -	$ -	$ -		#DIV/0!	$ -	$ -			$ -	$ -
Lotus Lake Kerber Pond Ravine	*$ 14,380*	$ -	$ 14,380	$ -	*0.00%*	$ -	$ -			$ -	$ -
Duck Lake Road Partnership	*$ 235,000*	$ -	$ 235,000	$ -		$ -	$ -			$ 235,000	$ 235,000
Lotus Lake Watershed Improvement Project (LL_1, LL_3, LL_7, LL_8)	$ -	$ -	$ -			$ -	$ -			$ 325,000	$ 325,000
Subtotal	**$ 714,872**	**$ 28,000**	**$ 742,872**	**$ 50,824**	**6.84%**	**$ 288,058**	**$ 288,058**	**$ -**	**$ 112,000**	**$ 560,000**	**$ 960,058**
Reserve	**$ 180,000**		**$ 180,000**	$ -	0.00%	**$ 180,000**	**$ 180,000**			**$ 50,000**	**$ 230,000**
TOTAL EXPENDITURE	**$ 7,558,007**	**$ -**	**$ 7,848,228**	**$ 1,358,066**	**17.30%**	**$ 3,355,058**	**$ 3,332,058**	**$ 71,933**	**$ 190,000**	**$ 3,640,581**	**$ 7,284,572**
EXCESS REVENUES OVER (UNDER) EXPENDITURES	**$ (0)**	**$ -**	**$ (290,221)**							**$ -**	**$ 110,000**
QC Check	$ 7,558,007	$ -	$ 7,848,228	$ 1,358,066		$ 3,355,058	$ 3,332,058	$ 71,933	$ 190,000	$ 3,640,581	$ 7,284,572
***Denotes Multi-Year Project - See Table 2 for details**									% Change	1.8%	-7.2%

County	Payable Net Tax Capacity	Net Tax Capacity Percent Distribution			Apportioned Payable 2022	$ 3,640,581
Hennepin County	$ 123,548,402	76%			$ 2,772,696	
Carver County	$ 38,672,148	24%			$ 867,885	
Watershed Total	$ 162,220,550	100%			NA	

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

CITY OF Chanhassen Minnesota

Upper Riley Creek
Ecological Enhancement Plan

Board of Managers Meeting – December 8, 2021

Overview

Objectives

Project Need

Field Observations

Identified Enhancement Measures

Path Forward

Upper Riley Creek Ecological Enhancement Plan

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

- Property Boundary
- Creek Alignment
- Lake
- Watershed District Boundary

N

0 1,000
Feet

Imagery Source: NearMap, April 2019

PROJECT LOCATION

FIGURE 1-1

Project Vision & Approach

VISION

Provide an ecologically diverse stream reach that

- Improves ecological functions
- Provides diverse habitat layers
- Significantly reduces streambank erosion
- Enhances public access & understanding importance of stable streams

APPROACH

Adaptive management approach

Preferred by RPBCWD, MnDNR and USACE

- Restoration methods selected to enhance creek's ecological values and functions while mitigating and preventing additional erosion
- Foster use of natural materials and bioengineering methods for restoration and maintenance whenever feasible to maintain natural function and appearance and provide higher quality habitat
- Align with RPBCWD and City Surface Water Management Plan Goals

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

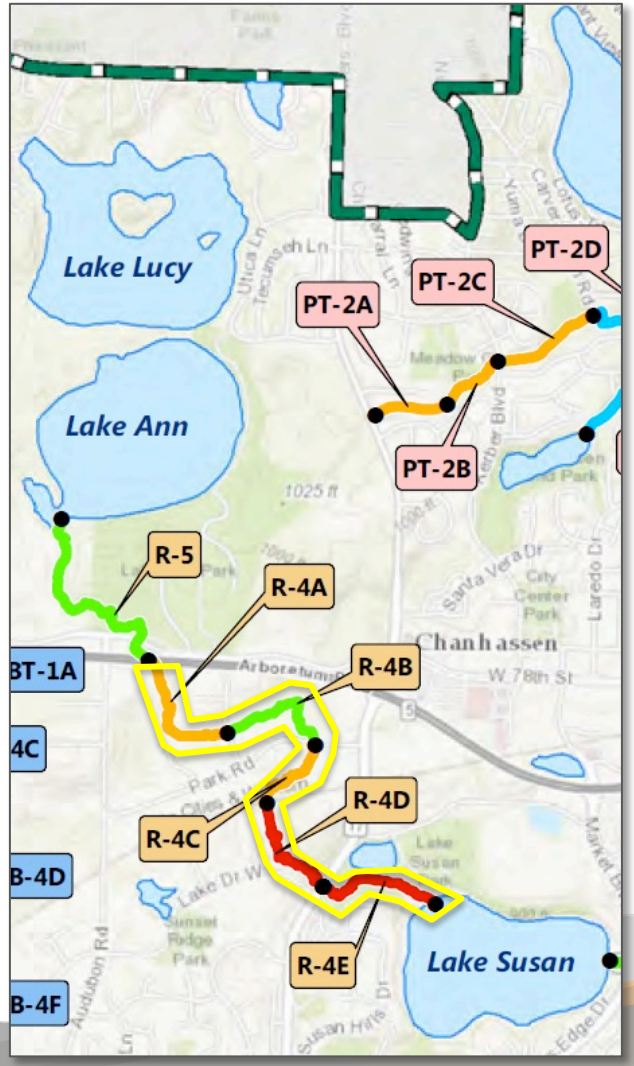
CITY OF Chanhassen Minnesota

Why this stream reach?

High Priority Reach for RPBCWD

RPBCWD assesses creek reach restoration by assessing

- Infrastructure
- Erosion/channel stability
- Ecological benefits
- Water quality



RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

CITY OF Chanhassen Minnesota

Public Infrastructure

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

CITY OF Chanhassen Minnesota

Perched Culverts and Outfall Pipes

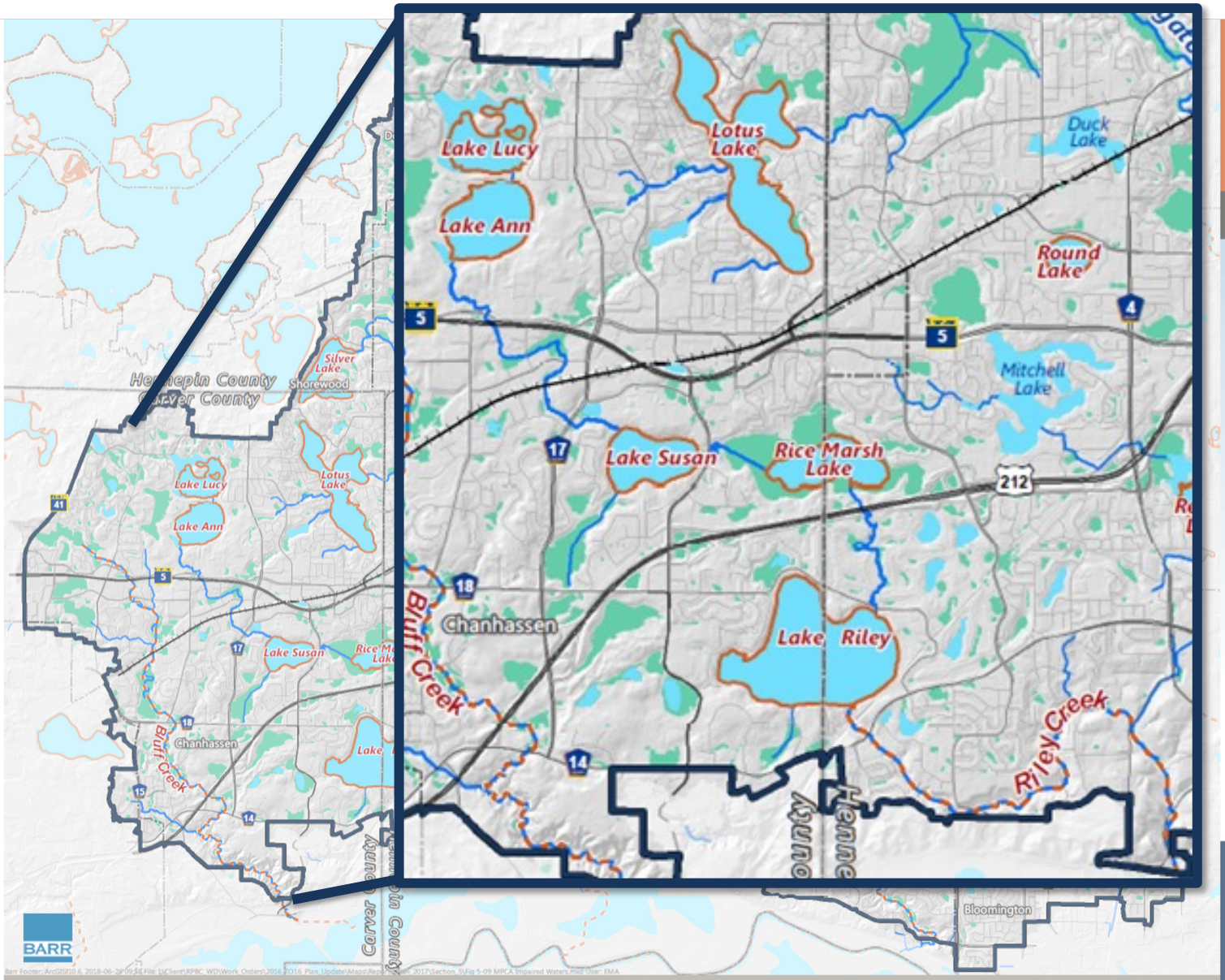
Outer Bank Erosion

Incised Channel, Disconnected from Floodplain

In-channel Debris

Lake Susan Sediment Deposition

Impaired Waterbodies



IMPAIRED WATERS

FIGURE 5-9

MPCA 2018 Draft Impaired Waters

- Impaired Lakes
- Impaired Streams
- Streams/Creeks
- Lake/Pond
- Wetlands
- District Legal Boundary
- Municipalities

N

0 1 2
Miles

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

Existing Water Quality Impairment

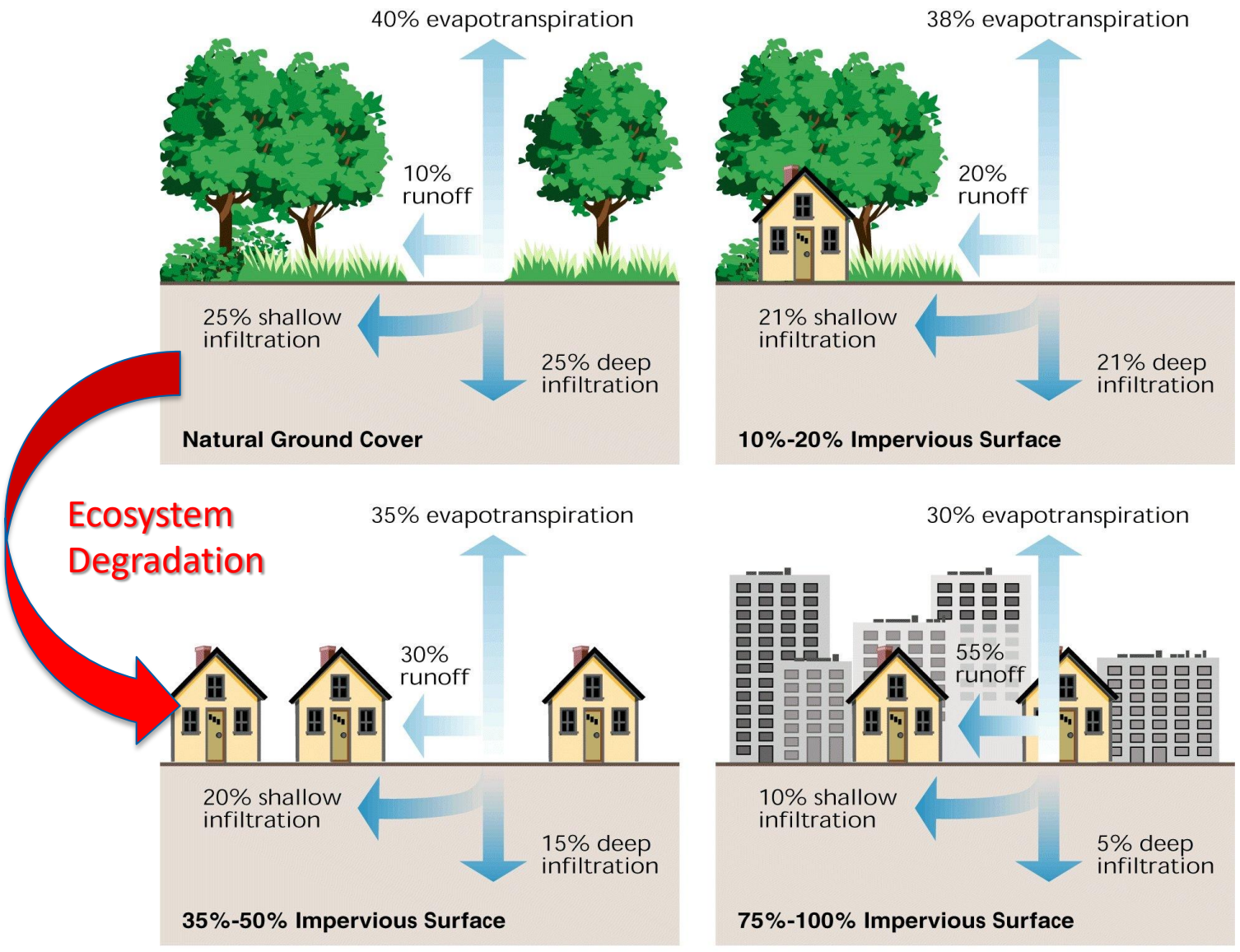
- District monitoring indicates Upper Riley Creek does not meet MPCA water quality standards
- Upper Riley Creek discharges water with excess nutrients and suspended solids to Lake Susan, which does not meet MPCA standards for shallow lakes
- Monitoring data indicates poor stream health, potential for nutrient loading to Lake Susan
- 67% reduction in erosion source loading needed to achieve and maintain long-term Lake Susan water quality goals

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

CITY OF Chanhassen Minnesota

How did we get here?

Main Driver



Federal Interagency Stream Restoration Working Group. 1998. *Stream Corridor Restoration: Principles, Processes, and Practices.*

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

CITY OF Chanhassen Minnesota

What can be done?

Anticipated Actions

Improved ecological functions by reducing streambank erosion, reconnecting creek to floodplain, enhancing habitat, improving soil health, and promoting diverse vegetation

- Up to 4 acres of in-channel habitat improvements
- Up to 22 acres of riparian habitat improvements
- 8,600 feet of channel length stabilized with improved riparian buffer to promote habitat diversity and improved soil health

9 Rock Riffles create natural channel patterns, control stream bed elevations, provide habitat diversity

35 Cross Vanes control stream bed elevations, dissipate flows, provide pool habitat

10 Outlet Modifications dissipate flows & reduce sedimentation

5 Floodplain Connectivity decreases erosion & provides habitat transitions

Anticipated Outcomes

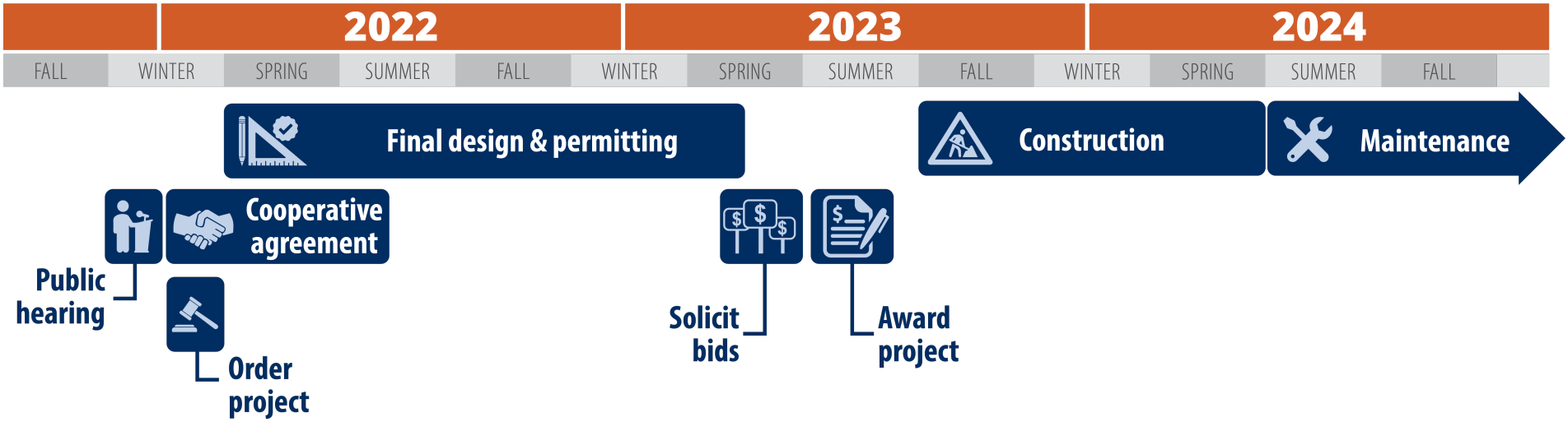
- Total estimated reduction in pollutant loading:
  470,000 lbs year Total Suspended Solids (TSS)
  250 lbs/year Total Phosphorus (TP)
- Critical ecological health improvement of Upper Riley Creek & Lake Susan
- Essential to potentially removing Lake Susan and Riley Creek from MPCA Impaired Waters list
- Supports City in achieving MPCA MS4 permit requirements

Path Forward – Work Plan

	ACTIVITY	BUDGETARY DOLLARS	YEAR	ORGANIZATION LEAD
Design	Upper Riley Creek Stabilization	$200,000	2022-2023	RPBCWD
Bidding and Award	Upper Riley Creek Stabilization	$10,000	2023	RPBCWD
Implementation	Upper Riley Creek Stabilization	$1,600,000	2023-2024	RPBCWD
	Storm sewer outfalls (4-6 locations)	$150,000 RPBCWD and City to split cost 50/50	2023-2024	RPBCWD
	Stormwater pond clean-out	$476,000	2023-2024	City of Chanhassen
Post-Construction monitoring and inspections	3-year Warranty	Staff will monitor	2024-2027	RPBCWD and city of Chanhassen
Long-term	Inspections	In-Kind	2024-2044	RPBCWD (most years) and city of Chanhassen (every 5 years)
	Routine maintenance	TBD	2024-2044	City of Chanhassen
	Non-routine maintenance	Determined as needed based on inspections	2024-2044	City of Chanhassen and RPBCWD
	Stormwater pond clean-out/maintenance	Determined as needed based on inspections	2024-2044	City of Chanhassen

ESTIMATED TOTAL FINANCIAL CONTRIBUTION	
RPBCWD	**$1,885,000** (includes 50% storm sewer outfalls)
City of Chanhassen	**$571,000** (includes 50% storm sewer outfalls)

Project Timeline



RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

CITY OF Chanhassen Minnesota

Questions?

MEETING MINUTES

Riley-Purgatory-Bluff Creek Watershed District

November 3, 2021, RPBCWD Board of Managers Monthly Meeting

PRESENT:

Managers:	Jill Crafton, Treasurer	
	Larry Koch	
	Dorothy Pedersen, Vice President	
	Dick Ward	
	David Ziegler, Secretary	
Staff:	Amy Bakkum, Administrative Assistant	
	Liz Forbes, Grant Coordinator	
	Terry Jeffery, Interim District Administrator and Watershed Planning Manager	
	Louis Smith, Attorney, Smith Partners	
	Scott Sobiech, Engineer, Barr Engineering Company	
Other attendees:	Pat Andrican	Tom Lindquist
	Patty Duryee	John (last name not provided)
	Rod Fisher	Maya Santamaria
	Dave/Shelley Hawkins	Marilyn Torkelson
	Greg Hawks	
	Rose Hilk	

Note: this meeting was held remotely via meeting platform Zoom in abidance with the District's procedures in response to state COVID-19 actions, mandates, and guidance.

1. Call to Order

President Ward called to order the Wednesday, November 3, 2021, Board of Managers Regular Meeting at 7:00 p.m. The meeting was held remotely via meeting platform Zoom.

2. Approval of Agenda

Manager Ziegler moved to approve the agenda as written. Manager Crafton seconded the motion.

Manager Koch moved to amend the agenda to remove Consent Agenda items 7a – Accept October Staff Report, 7b – Accept October Engineer's Report, 7c – Accept October Construction Inspection Report, 7e – Approve Payment Application #1 for the St. Hubert Water Quality Improvement Project, 7f – Approve Resolution 2021-012 Authorizing Membership in the 4M Fund, and 7g – Approve Resolution 2021-013 Authorizing Treasurer to Be Signee for Wells

Fargo Account to Transfer Funds. He requested tabling item 6b – Accepting District Administrator Job Description until the Board could hold a workshop or special meeting to discuss it, and he requested adding to item 9a report on the status of the litigation unless legal counsel advises otherwise. Manager Koch said that under 9c he has four items he would like to bring up under the Manager Report, including status of permits on Lotus Lake, Rules Revisions status, workplan for 2022, and draft resolutions by legal counsel.

President Ward stated the Manager Report is to provide for managers to report items to the Board and not bring up new items for discussion, so he won't make Manager Koch's requested change to add four items to the Manager Report. Manager Koch said he will report on his comments on the four items during the Manager Report, and it isn't up to President Ward to make that decision and all the managers can make that decision. He said at least two of those items are items he informed Administrator Jeffery he wanted on the agenda, so why they aren't on the agenda Manager Koch doesn't know, especially considering that per the District Governance Manual, the President doesn't have the authority to make decisions. Manager Koch said "if you are under the mistaken impression that the revised Governance Manual in when was that, in 2020, which as I've said before, that was an invalid action because proper notice was not given to the managers as required by statute."

Attorney Smith offered the procedural comment that right now as the Board considers the agenda, the Board separate its discussion of this item, which is approval of the agenda, from discussion that should take place under the agenda items themselves, such as tabling an item.

Manager Koch amended his motion to include striking 6b from the agenda. There was discussion about Roberts Rules of Order and clarification about the most recent motion.

Upon a roll call vote, the motion failed 1-4 as follows:

Manager	*Action*
Crafton	No
Koch	Aye
Pedersen	No
Ward	No
Ziegler	No

There was additional discussion about Roberts Rules of Order and removing items from the Consent Agenda as well as discussion about the changes to the agenda. President Ward clarified that the motion on the table is to adopt the agenda with the removal off the Consent Agenda to Discussion item 8a the items Manager Koch requested removing, which were items 7a, 7b, 7c, 7e, 7f, and 7g.

Upon a roll call vote, the motion carried 4-1 as follows:

Manager	*Action*
Crafton	Aye
Koch	No
Pedersen	Aye
Ward	Aye
Ziegler	Aye

3. Matters of General Public Interest

Ms. Maya Santamaria said she lives on Duck Lake at 6823 Lilian Lane. She said a lot of residents are concerned about the most recent idea of not raising the water level of the lake. She said all of the residents she has talked with wants the water level raised. She said they want the level raised for habitat and to restore native habitat, because right now only the koi can live in the water at its current level. She thanked the Board for taking these comments.

Mr. Rod Fisher said he lives on the south side of Duck Lake and said the residents are all in agreement that they want the water level higher. He said he has lived on the lake since the 1990s and the lake has been higher than its current elevation. Mr. Fisher said he hopes the residents can get the support of the Board to work with the DNR to raise the level.

Mr. Dave Hawkins of 6519 Bay Drive said he has lived there for 30 years and has seen the lake levels drop and agrees with the previous comments about the drop in the lake level. He raised his concerns about property values and said he would appreciate the Board's support to get the lake level raised.

Mr. Tom Lindquist said he lives on Duck Lake and agrees with the comments raised about the Duck Lake water elevation. He said from around 1995 to 2010 there was great bass fishing on Duck Lake and the lake level was measured well above even the 914-foot elevation. Mr. Lindquist said the lake has taken a huge step backward due in good part to the decreased lake water level.

Ms. Patty Duryee of 16710 Baywood Terrace said she lives on Duck Lake and agrees with the comments shared this evening by the other Duck Lake residents. She said she has been on the lake since 1975 and has seen a lot of things happen and the watershed's help is needed.

Manager Koch said he would like staff to provide at the next Board meeting preliminary comments on the situation because he would like to have a better handle on the facts. Interim Administrator Jeffery said staff is prepared to speak on this topic at tonight's meeting.

4. Reading and Approval of Meeting Minutes

a. October 6, 2021, RPBCWD Board of Managers Regular Meeting

Manager Ziegler moved to approve the minutes of the October 6, 2021, Board of Managers Regular Meeting. Manager Pedersen seconded the motion. Manager Koch said he thinks it is important that the minutes reflect the questions asked during the meeting and the responses. He suggested the District post the recording of the meetings, because he doesn't think it is in the best interest of the public and in particular the watershed's relationship with its constituents to have the minutes summarize, for example, that Manager Koch asked a question and Interim Administrator Jeffery responded. Manager Koch said he would like to see the watershed in the future do one of those two things he mentioned.

Manager Crafton noted on page 2, line 22 a correction is needed to correctly identify the manager who seconded the motion. Manager Ziegler noted on page 1 the word "President" should be inserted after Ward, and on line 233 language is missing after the word "project." Upon hearing no other comments or requests for edits, President Ward called for the vote. Manager Koch clarified that the vote is to approve the minutes as amended. President Ward said yes.

Upon a roll call vote, the motion carried 5-0 as follows:

Manager	*Action*
Crafton	Aye
Koch	Aye
Pedersen	Aye
Ward	Aye
Ziegler	Aye

5. CAC

Ms. Marilyn Torkelson reported about the tour of the newly restored section of Riley Creek. She said the CAC is looking forward to more educational field trips in the future in order to be more valuable members of the CAC.

Manager Pedersen volunteered to attend the November 15th CAC meeting. Manager Koch requested the meeting be recorded so he can have the opportunity to have advanced understanding about the rules and where they might be going. Interim Administrator Jeffery

clarified the presentation to the TAC is about the District's process for permit applications, but he said staff will record the meeting.

6. Personnel Committee

a. Accept August 2021 and October 2021 Minutes

Manager Pedersen moved to accept the August 2021 and October 2021 minutes of the District's Personnel Committee. Manager Koch had remarks about item 3 in the August 13, 2021, minutes, saying he thinks the District should secure HR consultant services before moving any further with the District Administrator position. He stated that making a decision to reach out to somebody without the approval of the managers is beyond the scope of the Personnel Committee. He stated that his position is that the Governance Committee that was voted on in October of last year or the year before is not valid, proper notice was not given to the managers, and therefore the Governance Manual from back in 2013 or 2017 would be the rules in effect, and under those rules the single role of the Personnel Committee is to be receptive of people's complaints who did not want to go to the Administrator. Manager Koch shared his viewpoint that "we should be tabling this" until we have an HR person engaged on this basis, and he thinks the same issue applies to item number 4 Personnel Handbook and we should get somebody with recent knowledge and experience and training. Manager Koch commented on his knowledge about how personnel handbooks have significantly changed, particularly because of recent Minnesota Supreme Court cases, and so he thinks we need an HR person who is up to speed on that, and he also thinks we need to have Legal Counsel involved who is also up to speed on the contents of personnel handbooks, and so developing a policy is beyond the scope of the Personnel Committee, he thinks, unless we so authorize it, and then regarding number 5 review of personnel grievance process, is in fact in his reading of the Governance Manual in effect is a role of the personnel committee, and to act as a sounding board for all staff and the administrator presents a conflict of interest, if the job of the Personnel Committee is to respond to complaints or issues raised by staff they are uncomfortable raising to the administrator, so he thinks that this Personnel Committee should not be acting as the sounding board if it is going to be handling these types of complaints, because there is an inherent conflict, and he thinks it would be best, as he has said before, to engage an expert professional in HR who can assist in being the sounding board, basically a party that can advise both the Personnel Committee and the administrator to deal with issues that are raised to that administrator.

President Ward stated that the motion on the floor is to accept the minutes, and he appreciates Manager Koch's comments, but this isn't a discussion about an HR consultant. President Ward said any discussion should be about acceptance of the minutes. Manager Koch responded the motion is to accept minutes from a committee outstripping its authority for the reasons that he stated on that basis, and to go on to the next one [next set of minutes]…Manager Koch paused to find his notes. Manager Crafton commented that Manager Pedersen has 20 years of HR experience, and the District is lucky to have Manager Pedersen's experience on the Personnel Committee. Manager Koch retorted first

of all, he is sorry, his understanding of Manager Pedersen's work experience in supervising HR is at least decades old, and…President Ward tried to interrupt Manager Koch. Manager Koch loudly talked over President Ward to say he [Manager Koch] has the floor. President Ward said point of order…Manager Koch shouted he has the floor. President Ward said the order of the day is the acceptance of the Personnel Committee minutes. Manager Koch stated again in a very loud volume that he has the floor. President Ward stated that is it. Manager Koch stated he is commenting because President Ward gave Manager Crafton the basis to make her statement, so he thinks he should have a right to respond to that statement. President Ward stated point of order. Manager Koch interrupted to ask President Ward if he is trying to be king and asked if President Ward wants to be king. President Ward said he has called order of the day, and he asked Manager Koch if he knows what that means. Manager Koch stated, "Follow Robert's Rules of Order, would you?" President Ward said order of the day means you follow the agenda item. Manager Koch said that's what he is doing, he is following the agenda items. President Ward called for the vote. Manager Koch said no, he has the floor, and if President Ward wants to vote to cut off discussion, he can do so, but the President can't make that decision. President Ward stated to Manager Koch that he is not following order of the day. Manager Koch responded he is commenting on the motion before the managers. President Ward said if Manager Koch wants to…Manager Koch interrupted to state if President Ward wants to cut off discussion, there is a mechanism in Robert's Rules of Order, and that mechanism is not the president's decision. President Ward stated Manager Koch is totally out of order. Manager Koch responded that President Ward is out of order. President Ward called for the vote. Manager Koch said his comments on the October 21st minutes from the Personnel Committee include that he wants to know who came up with the fact that we go out to use the Baker Tilly description with modifications and what is it and have you circulated it to the managers. President Ward said the motion on the table is to accept the minutes, not dissect them. Manager Koch said that's against the time-honored process for every report, every set of minutes, for managers to be able to ask questions about the reports, the staff report, the engineer report, everything we have been allowed to ask questions about each one of those reports without exception for at least as long as he has been a manager. Manager Koch said, so, that is bluntly done, these are no different. President Ward said we don't ask questions about minutes, we accept them, or we correct them, and that is all we do with minutes. Manager Koch disagreed, saying that isn't what we've done before. President Ward said that is what we've done before. Manager Koch said he disagrees. President Ward said disagreeing is fine. President Ward called for the vote. Manager Koch said he still has the floor, and if President Ward wants to cut off discussion, he needs to go through the proper procedure. Manager Pedersen moved to cut off the discussion. Manager Crafton seconded the motion. President Ward called for discussion. Manager Koch said he doesn't think the Board should be cutting off discussion of these minutes until the managers understand what they say and where this information came from. President Ward started to reply, and Manager Koch interrupted, saying, if you don't care where it came from, then he'll just say shame on you guys. Hearing no further discussion, President Ward called for the vote. Upon a roll call vote, the motion to cut off the discussion carried 4-1 as follows:

Manager	*Action*
Crafton	Aye
Koch	No
Pedersen	Aye
Ward	Aye
Ziegler	Aye

Upon a roll call vote, the motion to accept the August and October Personnel Committee minutes carried 4-1 as follows:

Manager	*Action*
Crafton	Aye
Koch	No
Pedersen	Aye
Ward	Aye
Ziegler	Aye

b. Accept District Administrator Job Description

Manager Pedersen stated the District had the job description professionally prepared in 2019. She said the description was distributed to the managers at that time as part of the Administrator review process. She described a description Interim Administrator Jeffery drafted based on District Administrator job descriptions from other watersheds. Manager Pedersen talked about the job description that was broader in scope and said she has no problem with having a meeting for everyone to talk about the description and what we're looking for, because she thinks everyone needs to be on board with it. Manager Koch moved to table this item to a special meeting. Manager Pedersen seconded the motion. Manager Pedersen described the information she reached out to Baker Tilly to provide. Upon a roll call vote, the motion carried 5-0 as follows:

Manager	*Action*
Crafton	Aye
Koch	Aye
Pedersen	Aye
Ward	Aye
Ziegler	Aye

Manager Pedersen reported the Personnel Committee has scheduled a meeting with the benefits representative for a presentation about cost increases and options in the benefits plan for 2022.

7. Consent Agenda

Manager Koch moved to accept items on the Consent Agenda as amended earlier in the meeting, include 7d – and 7f – and to adopt the resolutions that have been provided in the packet with respect to 7d and to approve payment of payment application #7. Manager Pedersen seconded the motion. The Consent Agenda included item 7d - Approve Resolution 2021-014 Authorizing the Administrator to Enter into Encroachment Agreements with Metropolitan Council for the Rice Marsh Lake Subwatershed 12a Water Quality Improvement Project for Outlot A and Outlot B. and 7h – Approve payment application #7 for Lower Riley Creek Stabilization.

Upon a roll call vote, the motion carried 5-0 as follows:

Manager	*Action*
Crafton	Aye
Koch	Aye
Pedersen	Aye
Ward	Aye
Ziegler	Aye

8. Action Items

a. Items Pulled from Consent Agenda

i. Accept October Staff Report

Manager Koch asked if staff has sent him a copy of the Abdo agreement. Interim Administrator Jeffery explained the status of the agreement's execution. Manager Koch stated he is asking to see the agreement because he wants to make sure it provides that the District has at least 60 days to pay invoices, so the District doesn't run into the issue of having to go pay interest, and that is why he raised that issue. Interim Administrator Jeffery said he can send Manager Koch the draft agreement that was sent to Abdo. Manager Koch asked about Interim Administrator Jeffery's discussion with Engineer Sobiech about the regulatory program and asked if Interim Administrator Jeffery has anything to report on that now or later. Interim Administrator Jeffery replied the meeting was more of a brainstorming session, and he is meeting again with Engineer Sobiech next week and will provide a report to the Board at the next meeting. Interim Administrator Jeffery said the goal is to hold a work session in January with the Board on the proposed work plan. Manager Koch asked Interim Administrator Jeffery if he received Manager Koch's list of items he thinks are worthy of discussion regarding revisions. Interim Administrator Jeffery replied yes. Manager Koch said he has a question at the top of page 3 and would like a status report on the watershed stewardship grant reporting system and whether progress is being made and if we are working on it. Interim Administrator Jeffery said he can get that information to Manager Koch. Manager Koch wanted to know the reason for the October 31st cut off. Interim Administrator Jeffery said a point staff will bring to the Board in the future is talking about a continuous application period divided into four quarters.

Manager Koch asked Interim Administrator Jeffery if he is working on that water resource report. Interim Administrator Jeffery responded correct, staff should have it available by the January meeting. Manager Koch asked staff to fill in more details about the 2021 numbers of blue-green algae in Lake Susan. Interim Administrator Jeffery stated Lake Susan has exceed World Health Organization (WHO) levels for phytoplankton. Interim Administrator Jeffery said staff proposes doing core testing of the wetland and doing testing earlier so the District could issue warnings if necessary.

Manager Koch asked for more details about the winter sampling on the Riley Chain of Lakes and asked staff to explain the program and if there is an alternating sampling schedule of the chain of lakes. Interim Administrator Jeffery said yes, every three years, so Riley, then Bluff, then the Purgatory chain of lakes.

Manager Koch asked if because it was such a dry year, runoff would be basically from what hit pavement, and is staff trying to do correlations of lake level changes, correlating them to rainfalls so we get better modeling. Engineer Sobiech stated the short answer is yes, all the monitoring data is going to be used with the updated hydraulic and hydrologic data.

Manager Koch had a comment on page 5 and said he thought the main message of the postcard was going to be that people need to be aware their projects may require a permit. He said the reference was so small, he is concerned people missed the message that their project may require a permit. Manager Koch asked if there is budget to do another postcard and mailing to residents with that message. Interim Administrator Jeffery said staff had planned to do another mailing to go out in January or February. He said the next mailing could emphasize the message about permit requirements for projects that touch the shoreline. Manager Koch asked for a report on the three projects on Lotus Lake that weren't permitted. Interim Administrator Jeffery provided an update. Manager Koch said he thinks the District needs to find an enforcement mechanism and would like it to be part of the discussions going forward. Manager Koch asked about any plans to fix the Lake Susan improvement project. Interim Administrator reported on a meeting with Peterson Construction, who installed it, and options being considered.

Manager Koch gave his opinion about using drones and/or a cam for pictures and video footage of the lower creek. He asked staff for more details about the pullout on Middle Creek at Bearpath. Interim Administrator summarized that Hartman was hired as a subcontractor due to a requirement that the contractor must have demonstrated experience working on a golf course. He described an onsite meeting with Sunram and the decision for Ryan to do the work. He noted Bearpath has agreed to have Sunram construct the wall. Manage Koch asked staff and Legal Counsel to memorialize that to the extent Legal Counsel thinks appropriate. Interim Administrator Jeffery said he has asked Attorney Welch to review the agreement. Manager Koch said he has a question about the Silver Lake Restoration unless staff will talk about it later in this meeting. Administrator Jeffery said he will be talking about it later in the meeting.

Manager Ziegler moved to accept the staff report. Manager Pedersen seconded the motion. Upon a roll call vote, the motion carried 5-0 as follows:

Manager	*Action*
Crafton	Aye
Koch	Aye
Pedersen	Aye

Ward	Aye
Ziegler	Aye

ii. Accept October Engineer's Report

Manager Koch reiterated his opinion that the District should do drone flights and that others doing drone flights seem to get permission. He had a comment on page 2 of 6, item G, and said he looked on Google maps or Zillow for the address listed and it looked like there is rip rap there already. Engineer Sobiech said yes, there is rip rap along most of the shoreline already, and the project is rip rap repair and native plantings. Manager Koch said he thinks the District should look at requiring berms to protect the water from some of the bigger rains on that basis, and he has that naturally on his property. He said he thinks it would be worth thinking about as a best management practice to have some sort of mechanism to hold back some of the water instead of having it go right into the lake.

Manager Koch moved to accept the October Engineer's report. Manager Ziegler seconded the motion. Upon a roll call vote, the motion carried 5-0 as follows:

Manager	*Action*
Crafton	Aye
Koch	Aye
Pedersen	Aye
Ward	Aye
Ziegler	Aye

iii. Accept October Construction Inspection Report

Manager Koch said he pulled this because of his concern on the three permitting issues and to which staff has already provided an update in this meeting. Interim

Administrator Jeffery asked for manager feedback on the report's format. Manager Pedersen requested addresses be added. Manager Koch said the photos are helpful and agreed addresses would be helpful as well. He said if it goes more than a month, he'd like to know what action, if any, has been taken to correct it.

Manager Ziegler moved to accept the October Construction Inspection Report. Manager Koch seconded the motion. Upon a roll call vote, the motion carried 5-0 as follows:

Manager	*Action*
Crafton	Aye
Koch	Aye
Pedersen	Aye
Ward	Aye
Ziegler	Aye

iv. Approve Payment Application #1 for the St. Hubert Water Quality Improvement Project

President Ward said this payment application is for an amount just over $263,000. Manager Koch said the documentation received isn't consistent with documentation received for other projects. He said he thinks the District's process should be that for projects Barr is working on, that when there is a request for payment the Engineer must give the District some type of certification that they have reviewed the work and then certify to the best of their knowledge work has been in accordance with project. Manager Koch said he would like the District to consider revising or having a template schedule that has a certification by the contractor saying they've done the work and incurred the expenses, so the District has on record that they say they have done the work.

Interim Administrator Jeffery addressed the idea of using a templated industry standard form. He talked about the documentation, including the memorandum, for this pay application. Interim Administrator Jeffery stated he is comfortable with the documentation and knows they have fulfilled their obligation and SRF concurs.

Manager Crafton moved to approve the pay application #1 for the St. Hubert Water Quality Project. Manager Ziegler seconded the motion.

Upon a roll call vote, the motion carried 5-0 as follows:

Manager	*Action*
Crafton	Aye
Koch	Aye
Pedersen	Aye
Ward	Aye
Ziegler	Aye

v. Approve Resolution 2021-012 Authorizing Membership in the 4M Fund

President Ward said this resolution would memorialize the action the Board took previously about the 4M Fund. Manager Koch said he is concerned that the documentation for the names of who has signing authority is blank, and he has a rule that he doesn't approve things that are blank. He said his other concern is he thinks we need to have an understanding of exactly how we are going to move this money, where it's going to be, and who is doing what. Manager Koch said he thinks it would be beneficial to have two accounts, including an investment account, which would be different than U.S. Bank. He said he'd like to see a different account that would hold financial assurances for accounts so they wouldn't be comingled and would be easier for accounting and reporting. Manager Koch said he doesn't know that this item is urgent, so he would like a plan to be developed and brought back, so he has an understanding of exactly how we are going forward, and he understands who has authority to do what. He said with no disrespect intended toward Mr. Jeffery as the Administrator, but Manager Koch really thinks to the extent we have approvals by anybody, he thinks there needs to be additional sign off by the Treasurer or some other officer because a double-check is always needed when it comes to money, so no one person can expend money without the right approval. Manager Koch restated he would like to see this come back next month.

Interim Administrator Jeffery said the forms were filled out, but in copying over the form into the packet, the inserted information come through. He said the form includes the information designating President Ward and Manager Crafton as signatories and himself as an alternate in case of an absence. President Ward and Manager Crafton said the copy of the forms they have include the information filled out. President Ward reiterated that the forms designate the signatories as himself, Treasurer Crafton, and the Administrator.

President Ward said all this document is doing is designating U.S. Bank as the depository for the District for the 4M Fund. Attorney Smith concurred. President Ward said the issues Manager Koch raises about a second account and who is going to do what is separate from these resolutions and are matters that

should be discussed and resolved, but that can happen at the December Board meeting because it has nothing to do with these two resolutions. Attorney Smith said the resolution spells out the actual transfer and Manager Koch's comments go to the logistics of how this will operate.

Manager Koch said he does not want to authorize Administrator Jeffery to sign any other documents without at least the approval by the Treasurer or Mr. Smith. Manager Koch said the resolutions at minimum should be changed to require approval of the Treasurer or Counsel for Administrator Jeffery to sign.

Manager Koch moved to adopt the resolutions with the following changes that the Administrator can execute the documents with the approval of Counsel and the approval of the Treasurer, and the word funds is inserted in the second to the last line in the second resolve. President Ward said the word funds was inserted in the version the managers were provided on Monday. Manager Pedersen seconded the motion Attorney Smith said the District's Legal Counsel doesn't act as an authority of approval but as to form and execution. He asked Manager Koch if he would amend his motion to include approval of Legal Counsel for form and execution, which is legal counsel's confirmation that the document is in proper order and that the person has authority to sign it. He added that legal counsel doesn't have an opinion about the transaction. Manager Koch and Manager Pedersen agreed to Attorney Smith's friendly amendment.

Upon a roll call vote, the motion carried 5-0 as follows:

Manager	*Action*
Crafton	Aye
Koch	Aye
Pedersen	Aye
Ward	Aye
Ziegler	Aye

vi. Approve Resolution 2021-013 Authorizing Treasurer to be Signee for Wells Fargo Account to Transfer Funds

Manager Koch said he doesn't have a problem approving signatories, assuming they are the Administrator and the Treasurer, etcetera, but when he read the resolution, it just did everything, like open accounts and everything. He said he thinks a more appropriate resolution would be to designate signatories as the Administrator, Treasurer, and President and authorize the Administrator and the Treasurer to take whatever actions are necessary or appropriate to transfer the

funds at Wells Fargo to either the 4M Fund or U.S. Bank as appropriate. Attorney Smith said he has a feeling the language included is what Wells Fargo wants in order to accomplish the transfer. He noted Wells Fargo didn't have on record current authorizations, so this resolution is doing some clean up as well.

Manager Koch said perhaps the Board could adopt a separate resolution to specify it takes two out of the three designated, the Administrator, the Treasurer, and President Ward, to take any action pursuant to these resolutions the Board is adopting for the benefit of the bank. Attorney Smith said he doesn't see why the Board couldn't do so. Manager Koch moved to adopt Resolution 2021-013 as presented plus the additional resolution that it would take the approval of two of the Administrator, the Treasurer, and the President to take any action pursuant to the foregoing resolutions required by Wells Fargo. Manager Crafton seconded the motion.

Upon a roll call vote, the motion carried 5-0 as follows:

Manager	*Action*
Crafton	Aye
Koch	Aye
Pedersen	Aye
Ward	Aye
Ziegler	Aye

b. Accept September Treasurer's Report

Manager Crafton stated the report has been reviewed in accordance with internal controls and procedures. She moved to accept the September Treasurer's Report. Manager Pedersen seconded the motion.

Manager Koch said if his math is correct, normally the items in the September report would be at 75% of budget. He asked if the Treasurer or Administrator could comment on those items that are over 75% and if they believe at the end of the year those items will be over budget. Treasurer Crafton said the audit costs are over because the District kept making additional requests. President Ward said there shouldn't be any more audit costs. Manager Koch noted insurance and bonds is up 132%, and the number is the number, and he asked if there could be a motion at the Board's December meeting to get these accounts squared to make sure the budget numbers match the spend. Manager Koch said Engineering Services is at 86%, and Administrator Jeffery said some of that is due to the Silver Lake project and some due to the Middle Riley Creek project, and he relies on Engineer Sobiech for the budget numbers. Manager Koch said he has the same point about the percentage of budget already expended for legal services. He said he is

fine if staff wants to come back in December to address his questions. The Board directed Administrator Jeffery to prepare that information to bring back to the Board at its December Board meeting.

Upon a roll call vote, the motion carried 5-0 as follows:

Manager	*Action*
Crafton	Aye
Koch	Aye
Pedersen	Aye
Ward	Aye
Ziegler	Aye

c. Approve Paying of Bills

Manager Crafton moved to pay the bills. Manager Ziegler seconded the motion. Upon a roll call vote, the motion carried 5-0 as follows:

Manager	*Action*
Crafton	Aye
Koch	Aye
Pedersen	Aye
Ward	Aye
Ziegler	Aye

d. Authorize MAWD Delegate Selection

Manager Pedersen nominated Manager Crafton and Manager Ziegler as the MAWD delegates. Manager Koch moved to amend the motion to add the approval of payment of the fee for the managers and possibly CAC members to attend the MAWD convention. Manager Pedersen and Manager Ziegler agreed to the friendly amendment.

Upon a roll call vote, the motion carried 5-0 as follows:

Manager	*Action*
Crafton	Aye
Koch	Aye
Pedersen	Aye
Ward	Aye
Ziegler	Aye

e. Silver Lake Status Report

Administrator Jeffery stated Molnau Contracting mobilized on to the site on October 15, 2021. He reported on project progress. President Ward asked how much bituminous work needs to be done. Engineer Sobiech responded about 120 feet by 11 feet. President Ward noted the hot mix plants close three weeks from today.

Manager Koch asked if staff has had discussions with the bonding company about the extra costs incurred because Engineer Sobiech and Barr Engineering had to put in more time and about whether the District is going to be covered for those additional costs. Manager Koch said if that conversation hasn't happened, he thinks it needs to be explored, because if those costs aren't covered by the bond, they need to be covered by the contractor. Attorney Smith said staff is documenting those costs, and they are covered by the contract. Attorney Smith stated that based on the Board's direction at its last meeting, the District did submit a formal notice to the bond company and that triggered a conference this morning and was likely helpful in facilitating the progress that was made.

f. Permit 2019-004 Duck Lake Road Improvement

Administrator Jeffery gave a brief history of the outlet structure elevation, explaining that when the District, City of Eden Prairie, and the DNR met, the DNR said the outlet structure needed to be returned to its original elevation of 914.4. Engineer Sobiech stated the current elevation is 913.28. He said in recent weeks, the DNR informed the District that because the elevation has been 913.28 for such a long period of time, the DNR is not requiring the City to return it to 914.4. Administrator Jeffery said the elevation has only been 913.28 since 2014, and he reported on communications going back and forth about the appropriate response to this issue. He said under the general permit the District has with the DNR, the District does not have the authority to set an OHW for a lake.

Engineer Sobiech displayed slides to summarize how the outlet has changed over the years and how that has impacted lake levels. He talked about the different Duck Lake

outlet structure configurations since 1969 and how the configurations have affected the Duck Lake measured lake levels recorded by the DNR, lake levels as collected by the District, and lake elevation. He pointed out how variable the lake levels have been historically, and when the original 1969 outlet structure was in place, there were extended periods where the water level was maintained at or above 914.4.

Engineer Sobiech pointed out that after the outlet was replaced, the bounce up for those durations have not occurred. He said the outlet has been functioning differently since the time the outlet was replaced. Engineer Sobiech explained the new outlet included design attributes to limit the potential for plugging, and the outlet functions more efficiently than the outlet it replaced. He said in his opinion, the lake level that the lake will be experiencing going forward will be lower than it has experienced in the past. He said this has potential to lead to reduced habitat and increased fish kills. There was discussion about Duck Lake as a groundwater recharge area. Engineer Sobiech said groundwater seepage out of Duck Lake does occur. Manager Crafton stated Duck Lake residents could help by landscaping with native vegetation to help infiltration. Engineer Sobiech said yes, to help with groundwater recharge.

Manager Koch said he doesn't think this is enough data or data correlation to make a recommendation one way or the other. He asked for analysis on what is the average elevation through these periods of time, and asked that correlations with weather events be considered, so we can decide whether or not we want to make a recommendation.

Manager Ziegler talked about the reason this watershed district was developed, and said the lake hasn't been dry, at least since he has lived on the lake since 1985. He shared about his observations over the years about the outlet and the lake level. Manager Ziegler said the elevation has been killing the fish every year since the outlet reconstruction, which lowered the lake level 12 inches. He pointed out the drought only lowered the lake level four inches. He said the motion the District approved for the project included returning the elevation to the original elevation and that the District would need to review and approve any project changes that would affect water quality and/or habitat in the lake. There was discussion about what additional information the Board is asking for, and Engineer Sobiech said he could have additional information prepared in time for the Board's December meeting.

Manager Koch moved to authorize staff to work with Barr Engineering and bring back a more detailed report to the managers concerning the status of the lake, the history of the lake elevation, and any recommendations they may have concerning the elevation of the lake and with any permitting or regulatory hurdles or requirements in order to affect the level of the lake regardless of whether it's higher or lower. Manager Ziegler said he would amend Manager Koch's motion to include directing staff to draft a letter to the DNR stating the District isn't in agreement with the lower lake level and never has been. Manager Koch didn't accept the friendly amendment to his motion. The motion died due to lack of a second.

Manager Ziegler moved to authorize staff to further investigate the water level of Duck Lake and options moving forward, with the goal of staff drafting a letter to the DNR

that makes a recommendation and puts the watershed District in a position of recommending what the DNR should do, which is to restore the lake to the 914.4 level with the approved outlet structure. Manager Crafton seconded the motion.

Manager Koch said Manager Ziegler's approach isn't scientific, and he doesn't want to be associated with a process where the District looks for data to justify a result, and instead he wants the District to gather the data, which will guide the result.

President Ward asked Manager Ziegler to restate his motion. Manager Ziegler said his motion is to authorize staff to investigate the water level on Duck Lake, the benefits of having it at whatever level is best for the environment and fish habitat, and the level that the District will recommend or insist on, given the two levels - the current level and the DNR-approved level.

Upon a roll call vote, the motion carried 4-0 as follows:

Manager	*Action*
Crafton	Aye
Koch	Abstain
Pedersen	Aye
Ward	Aye
Ziegler	Aye

9. Discussion Items

a. Attorney Report

No attorney report.

b. Administrator Report

No administrator report.

c. Manager Report

No manager report.

10. Upcoming Board Topics

The Board and staff discussed the MAWD convention, which is December 1-3. The Board and staff discussed the date of the District's December Board meeting. President Ward said the Board will discuss at that meeting the District's levy amount. Attorney Smith detailed the requirements of the Truth in Taxation law, noting the District is required to hold an informational meeting on its budget and levy and receive additional public information, if there is any, on the budget and

levy. Manager Koch moved to set the District's December Board meeting for December 8th at 7 p.m. and to direct staff to send out the requisite notices as needed and to set the agenda before the notice is sent. Manager Pedersen seconded the motion. President Ward said upcoming Board topics isn't an action item and the Board would need to approve by consensus. Manager Koch moved to amend the agenda to allow the Board to adopt this motion because the Board can't set meetings without approval of the Board. Manager Koch amended his motion to open the agenda to allow for the setting of a special meeting. Manager Pedersen seconded the motion. Manager Ziegler amended that if the meeting is already scheduled for December 8th, then this action isn't necessary. Manager Koch and Manager Pedersen agreed to Manager Ziegler's friendly amendment.

Upon a roll call vote, the motion carried 5-0 as follows:

Manager	*Action*
Crafton	Aye
Koch	Aye
Pedersen	Aye
Ward	Aye
Ziegler	Aye

The Board discussed setting a date for the special meeting it approved earlier in this meeting to discuss the District Administrator position. Administrator Jeffery said he will work with the managers to coordinate the meeting date and time.

11. Upcoming Events

President Ward described upcoming District events as listed on the meeting agenda.

12. Adjournment

Manager Koch moved to adjourn the meeting. Manager Pedersen seconded the motion. Attorney Smith clarified that the Board is directing there will be a special meeting sometime in the next ten days. President Ward said that is correct. Attorney Smith asked if the Board is in consensus with holding a special meeting sometime in the next ten days. The managers responded yes. Manager Koch stated the Board adopted a motion in tonight's meeting to this effect, but if he is wrong, he will make the motion now. Attorney Smith recommended the language in the motion as setting a Special Meeting of the Board of Managers at the call of the Administrator after the managers consult their calendars. Manager Pedersen seconded the motion. . Upon a roll call vote, the motion to set a special meeting of the Board of Managers carried 5-0 as follows:

Manager	*Action*
Crafton	Aye
Koch	Aye
Pedersen	Aye
Ward	Aye
Ziegler	Aye

Manager Crafton stated that at the Board's January 6, 2021, meeting, the District approved the District's annual meeting schedule provided in the calendar in meeting packet, and the calendar specified the Board's December meeting will be December 8th.

Upon a roll call vote, the motion to adjourn the meeting carried 5-0 as follows:

Manager	*Action*
Crafton	Aye
Koch	Aye
Pedersen	Aye
Ward	Aye
Ziegler	Aye

The meeting adjourned at 10:01 p.m.

Respectfully submitted,

_____

David Ziegler, Secretary

MEETING MINUTES

Riley-Purgatory-Bluff Creek Watershed District

November 15, 2021, RPBCWD Board of Managers Special Meeting

PRESENT:

Managers:	Jill Crafton, Treasurer
	Larry Koch
	Dorothy Pedersen, Vice President
	Dick Ward, President
	David Ziegler, Secretary
Staff:	Amy Bakkum, Administrative Assistant
	Liz Forbes, Grant Coordinator
	Terry Jeffery, Interim District Administrator
	Louis Smith, Attorney, Smith Partners

Note: this meeting was held remotely via meeting platform Zoom in abidance with state mandates in response to Covid-19.

1. Call to Order

President Ward called to order the Monday, November 15, 2021, Board of Managers Special Meeting at 1:30 p.m. The meeting was held remotely via meeting platform Zoom. President Ward noted technical difficulty with his connection to the meeting and asked that Manager Pedersen chair the meeting.

2. Approval of Agenda

Manager Ziegler moved to approve the agenda as written. Manager Crafton seconded the motion.

Manager Koch moved to move agenda item 4 – Consider Methods of Soliciting Applications for District Administrator Position – ahead of agenda item 3 – Consider Approval of District Administrator Job Description. He commented he thought the Board acted at a previous meeting to approve Interim Administrator Jeffery maintaining the position until such time as his replacement was elected. Manager Koch said if the Board did take that action, is it necessary to have on the agenda item 5 - Consider extension of the motion made by the Board at the March 9 meeting and March 15 continuance regarding the appointment of Terry Jeffery as Interim District Administrator.

Interim Administrator Jeffery said Manager Koch is correct, the Board did act to approve that he would remain Interim District Administrator until the District Administrator is brought on.

Managers Crafton and Ziegler did not consent to Manager Koch's proposed amendment to move item 4 ahead of item 3.

Manager Koch moved to amend the motion to approve the agenda by deleting item 5 from the agenda. Manager Ziegler seconded the motion. Upon a roll call vote, the motion carried 5-0 as follows:

Manager	*Action*
Crafton	Aye
Koch	Aye
Pedersen	Aye
Ward	Aye
Ziegler	Aye

Manager Koch explained his reasoning for moving item 4 in front of item 3, pointing out he thinks the Board should discuss and identify the process first. He said he thinks this will be the most important hiring the District will do in his lifetime, and the process will determine who the District is looking for. He said he would like information from an HR consultant and headhunter. Managers Crafton and Ziegler said they don't agree with changing the agenda to move item 4 in front of item 3.

Upon a roll call vote, the motion to approve the agenda as amended carried 4-1 as follows:

Manager	*Action*
Crafton	Aye
Koch	No
Pedersen	Aye
Ward	Aye
Ziegler	Aye

3. Consider Approval of District Administrator Job Description

Acting Chair Pedersen referred to the District Administrator job descriptions included in the meeting packet. She explained one was developed by Sharon Klump of Baker Tilly and included input from the previous District Administrator. Acting Chair Pedersen said this job description was reviewed again in 2019 and 2020. She said the second job description was developed by Interim Administrator Jeffery, and she had added an item to it about the Data Practices Act. Acting Chair Pedersen explained why the Personnel Committee recommends the Board consider approval of the job description prepared by Baker Tilly.

President Ward moved to approve the job description recommended by the Personnel Committee. Manager Crafton seconded the motion. Manager Koch said he would appreciate if the Acting Chair would recognize whoever was recognized first before recognizing someone else, which is a matter of Robert's Rules of Order.

Manager Koch said he has shown this description to several professionals in the business as well as people who are seeking employment. He said this is what he has received, "Is this a joke?" "Is this a comedy?" Manager Koch said this description obviously did not receive high marks at all. He said the Board needs to decide, whatever the description is, how it will be used. Manager Koch asked if the job description will be an outline of what the Board wants the District Administrator to do. He said he thinks the Board wants to include more detail, so the applicants know what they are getting into. Manager Koch said for this reason he wanted to talk about process and procedure first.

Manager Koch moved to table the job description until such time as the Board has hired experts to comment on the job descriptions, and secondly until such time as the Board has had legal counsel, who have experience in such matters, review what's been proposed before the Board goes and adopts it, as everyone knows the issue of disabilities is important and the issue of making sure applications and job descriptions are not basically illegally excluding certain categories of potential candidates, exclusion of which could be illegal, so again that's why he goes back to process, and his motion is to table this until such time as the Board has engaged a professional to review and comment on what the Board has in front of it, both job descriptions. The motion died due to lack of a second.

Manager Koch moved to table the adoption of the job description prepared by Baker Tilly and recommended by the Personnel Committee, which he characterized as a joke and comedy and to adopt, at least initially, the detailed job description provided by the Interim District Administrator. The motion died due to lack of a second.

Manager Koch moved to table the approval of this job description until it has been reviewed by appropriate legal counsel. The motion died due to lack of a second.

Upon a roll call vote, the motion carried 3-2 as follows:

Manager	*Action*
Crafton	Aye
Koch	No

Pedersen	Aye
Ward	Aye
Ziegler	No

4. Consider Methods of Solicitating Applications for District Administrator Position, such as Hiring of a Human Resources Consultant and Hiring of a Headhunter

Manager Koch moved to engage an HR expert to advise the Board regarding the solicitation of and qualifications for a District Administrator and to hire a firm who is in the business of finding qualified applicants for various positions to assist the Board in finding appropriate candidates for the position of District Administrator. Acting Chair Pedersen seconded the motion. Manager Koch discussed his concern about the Board's lack of recent experience, if any, of hiring a District Administrator. He said he doesn't practice employment law, but he completes 40 hours of continuing education in that area each year, so he knows how important it is to have the process correct. Manager Koch said he thinks the Board needs that advice and consultation on how to hire and how to find people.

Manager Ziegler noted the Board has previously discussed hiring an HR consultant, and he thinks the Board should consider hiring a consultant before agreeing to hiring a consultant and to get that consultant's opinion on using a headhunter. He said he agrees the position description should be reviewed by an HR consultant and legal, so the Board knows it has something it can use. Manager Crafton agreed the Board should hire an HR consultant to help with the process. She said she's not as comfortable with hiring a headhunter. President Ward agreed with hiring an HR consultant, and he suggested hiring Baker Tilly. He said the hiring of a headhunter should not be combined with the hiring of an HR consultant. Manager Crafton agreed with the idea of hiring Baker Tilly.

Acting Chair Pedersen said the cost to the District to using a head hunter is 30% to 40% of the upper range of the District Administrator's salary, so $40,000 to $55,000. She said at this point she doesn't think that would be to the District's best benefit and the best use of tax dollars. She said she is in favor of using an HR consultant to help with the process and recommends the Board have a budget amount. She said she doesn't have a written proposal, but in July when she was gathering information about HR consultant costs, it seemed like the range was $5,000 to $10,000.

Manager Koch said he will not agree to using Baker Tilly orMs. Klumpp. He said he doesn't believe she is cut out to be an HR person and she has not served the Board well at all. Manager Koch said the Board needs to look outside of Baker Tilly or at least someone other than her, because she wasn't up to the task for which the District hired her for, and he is convinced she would not be up for the task of helping the Board find somebody. Manager Ziegler said he is not that happy with Baker Tilly either.

Manager Koch moved to amend his motion to request that staff, in cooperation with the Personnel Committee, solicit HR consultant applications and bring them back to the Board as soon as possible. Manager Ziegler seconded the motion.

Upon a roll call vote, the motion to amend the motion on the table carried 5-0 as follows:

Manager	*Action*
Crafton	Aye
Koch	Aye
Pedersen	Aye
Ward	Aye
Ziegler	Aye

Upon a roll call vote, the motion as amended carried 5-0 as follows:

Manager	*Action*
Crafton	Aye
Koch	Aye
Pedersen	Aye
Ward	Aye
Ziegler	Aye

5. Adjournment

Manager Koch moved to adjourn the meeting. Manager Crafton seconded the motion. Upon a roll call vote, the motion carried 5-0 as follows:

5anager	*Action*
Crafton	Aye
Koch	Aye

Pedersen	Aye
Ward	Aye
Ziegler	Aye

The meeting adjourned at 2:12 p.m.

Respectfully submitted,

_____

David Ziegler, Secretary

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

RPBCWD Staff Report – November 2021

Administration	Description	Update	Partners
Accounting, Audit & Budget	Coordinate with Accountants for the development of financial reports. Coordinate with the Auditor. Continue to work with the Treasurer to maximize on fund investments.	Staff Bakkum and Interim Administrator Jeffery compiled the monthly treasurer's report. Proposed final budget and levy for 2022 is on the agenda for 12/08/2021.	
Administration	Administrator activities	Interim Administrator Jeffery and Engineer Sobiech have put together a timeline for a workplan to be brought to the BOM in January 2022. Interim Administrator Jeffery is working with the Personnel Committee to identify a human resources firm to assist in the search for a permanent administrator. Interim Administrator Jeffery and Staff Bakkum met with Imagine IT to begin the onboarding process.	
Annual Report & Communication	Compile, finalize and submit an annual report to agencies.	Staff Mahon completed the 2021 Annual Communication. It has been sent to print and staff will begin distribution in early December.	
DEI	Diversity, Equity, and Inclusion	Staff met with CAC member Sam Griffin to discuss his experience with DEI and interest in serving on a district DEI Committee.	
Human Resources	General Human Resources	No changes.	
Internal Policies	Work with Governance Manual and Personnel Committees to review bylaws and manuals as necessary.	Interim Administrator Jeffery continues work in this area.	
Advisory	Engage with the Technical Advisory Committee on water conservation, chloride management and emerging topics. Engage with the Citizen Advisory Committee on water conservation, annual budget, and emerging topics.	The CAC held a regular meeting on November 15. Interim Administrator Jeffery provided an overview of the District permitting process and relationship to rules. The next regular meeting of the CAC will be on December 13. There is no scheduled TAC meeting at this time though it is anticipated that a TAC meeting will be scheduled for late February or early March.	
Local SWMP		No changes.	
MAWD	Minnesota Association of Watershed Districts	MAWD Annual Conference was held last week. Managers Crafton and Ziegler attended the business meeting.	
District-Wide	**Description**	**Update**	**Partners**
Regulatory Program	Review regulatory program to maximize efficiency.	Three applications for a permit have been received since the November meeting.	

	Engage Technical Advisory Committee and Citizen Advisory Committee on possible rule changes. Implement a regulatory program.	One permit application, for a single-family residential home, was withdrawn. No permits have been administratively approved since the September meeting. Two permits will expire in 30 days. Notification will be sent to those permit holders.	
Aquatic Invasive Species (AIS)	Review AIS monitoring program. Develop and implement Rapid Response Plan as appropriate. Coordinate with LGUs and keep stakeholders aware of AIS management activities. Manage and maintain the aeration system on Rice Marsh Lake. Riley Chain of Lakes Carp Management. Purgatory Chain of Lakes Carp Management. Review AIS inspection program. Keep abreast of technology and research in AIS. Zebra mussel adult and veliger monitoring.	A DNR permit was applied for to operate the aeration unit on Rice Marsh Lake. A notice was posted in the Chanhassen newspaper, on the district website, and on Facebook. The permit will be approved shortly. It is anticipated that due to the recent warmer than usual weather conditions, the unit will be turned on at the end of December or early January. Volunteer service learners have been counting zebra mussels on Lake Riley plates. This data is used to track general population trends. No other adult zebra mussels were found across the other District Lakes. Staff have been processing/analyzing all other AIS data collected for the 2021 Water Resources Report.	City of Chanhassen City of Eden Prairie University of Minnesota MN DNR Carver County
Cost-Share	Schedule and coordinate site visits. Review applications and recommend implementation. Evaluate program.	Twenty-one Watershed Stewardship Grant (WSG) cost-share projects were completed in 2021. Fourteen projects remain active. Staff Forbes is summarizing grant data for the annual report. Preliminary data shows that in 2021, $96,067 was awarded in WSG cost-share grants. Of grants awarded in 2021, $41,678 will be paid out at the close of 2021 due to project completion. Through winter, Staff Forbes will be developing the new online WSG grant module system. Once implemented, the new system will streamline grant management and incorporate geospatial data. Building of new grant database will begin with active grants and add backlog of closed grants as time allows. Staff Forbes will be meeting with the grant review committee (3 CAC members + Carver Co SWCD staff) in December to review the 2021 program and develop recommendations for 2022.	Carver County Soil & Water Conservation District

Data Collection	Continue Data Collection at permanent sites. Watershed Outlet Monitoring Program. Identify monitoring sites to assessfuture project sites. Water Level Sensors	Staff have been processing/analyzing all water quality data collected for the 2021 Water Resources Report. Macroinvertebrate samples were completed in November on Riley Creek and the samples were sent to Dean Hansen for workup/identification. WOMP stations: samples were collected 3 times this month for the Metropolitan Council. Winter sampling will occur on the Riley Chain of Lakes this year per normal rotation. A total of 4 stormwater ponds are being monitored biweekly to add to the districts and partners stormwater pond work to understand and improve function of the ponds. These units were pulled this month. Staff have placed and been visiting three auto sampling stations this year: Site B5 – Bluff Creek/Hwy 5. Site LL_7 – West Lotus Lake North Tributary. Site STL_17 – Purgatory Creek/Staring Lake Parkway. These stations were placed to collect more storm event nutrient and flow data to assess/confirm upstream loading for the proposed upcoming project sites. These units were pulled this month. Field data was collected for the MN DNR Score Your Shoreline Assessment and the Erosion Intensity Worksheet for Lake Lucy, Lake Ann, Lake Susan, and Lotus Lake. Staff will complete the scoring via desktop review and GIS. Staff have been visiting lake level sensors monthly to download data and ensure they are working correctly. These units were pulled this month and staff are currently reviewing the data before submitting to the DNR. Riley and Susan had sediment cores collected for preparation/evaluation for alum application this month. RML cores will also be collected but will be delayed until ice coverage due to vegetation limited sampling. Monitoring staff met with the Monitor My Watershed website host (Limnotech) this month to discuss ways to improve the site. This site currently allows real-time access to all the deployed EnviroDIY units.	Metropolitan Council City of Eden Prairie University of MN City of Chanhassen MN DNR City of Minnetonka
District Hydrology & Hydraulics Model	Coordinate maintenance of Hydrology and Hydraulics Model. Coordinate model update with LGUs if	District Staff, Barr Engineering, and Eden Prairie will be updating the District's stormwater model for both Purgatory Creek and Riley Creek. District staff have installed and	City of Bloomington City of Minnetonka

	additional information is collected. Partner and implement with the City of Bloomington on Flood Evaluation and Water Quality Feasibility.	checked monitoring equipment monthly in the Upper Purgatory Creek Recreational Area, Bren Pond, Eden Lake, and three additional ponds. Three stream units were also installed on Purgatory Creek. These units were pulled this month and the data is being compiled for model validation. Barr Engineering has been providing model assumptions and parameters to Eden Prairie engineering for review and confirmation. Task 1 of 3, Modeling and Evaluation, will continue well into 2022.	City of Eden Prairie City of Deephaven City of Shorewood
Education & Outreach	Implement Education & Outreach Plan, review at year end. Manage partnership activities withother organizations. Coordinate Public Engagement with District projects.	Staff Bakkum continues to receive inquiries via the district website "Contact Us" form. Staff Mahon and Staff Dickhausen visited the Staring Lake Outdoor Center in early November to lead lessons on water quality with Eden Prairie 4th graders at Cedar Ridge Elementary. Staff Mahon completed the design for the 2022 Calendar that will serve as the 2021 Annual Communication and has sent it to print. Staff Mahon assembled all photos that were entered into the 2021 Photo Contest onto the website. Staff Mahon met with outreach staff from NMCWD and CCWD to discuss the possibility of partnering on a smart salting workshop for faith communities.	Adopt-a-drain partners: Cities of Eden Prairie, Minnetonka, Bloomington, and Eden Prairie; Hamline University; Nine Mile Creek Watershed District; MPCA; Fortin Consulting City of Chanhassen
Groundwater Conservation	Work with other LGUs to monitor, assess, and identify gaps. Engage with the Technical Advisory Committee to identify potential projects. Develop a water conservation program (look at Woodbury model).	No change	Metropolitan Council City of Eden Prairie City of Shorewood City of Bloomington City of Minnetonka City of Chanhassen
Lake Vegetation Management	Work with the University of Minnesota or Aquatic Plant Biologist, Cities of Chanhassen and Eden Prairie, lake associations, and residents as well as the Minnesota Department of Natural Resources on potential treatments.	Ray Newman is working on an aquatic vegetation proposal to present to the board at the January board meeting. Point intercept reports were received this month from Freshwater Scientific Services for Redrock, Riley, Idlewild, McCoy, Staring, and Susan.	City of Eden Prairie City of Chanhassen University of

	Implement herbicide treatment as needed. Secure DNR permits and contracts with herbicide applicators. Schedule regularly scheduled point intercept surveys. Work with Three Rivers Park District for Hyland Lake.	Wenck/Stantec provided the updated Mitchell Lake Management Plan. Interim Administrator Jeffery is working with staff from Eden Prairie and members of the Mitchell Lake Association to coordinate management activities.	Minnesota MN DNR
Opportunity Projects	Assess potential projects as they are presented to the District	St Hubert project is substantially complete. Remaining work to be done includes prairie restoration and other plant maintenance.	City of Chanhassen St Hubert School
Total Maximum Daily Load (TMDL)	Continue working with the Minnesota Pollution Control Agency on the Watershed Restoration and Protection Strategies (WRAPS). Engage the Technical Advisory Committee.	No new updates	MPCA
Repair & Maintenance Grant	Develop and formalize grant program.	No changes	
University of Minnesota	Review and monitor progress onUniversity of Minnesota grant. Support Dr. John Gulliver and Dr. Ray Newman research and coordinate with local partners. Keep the manager abreast to progress in the research. Identify next management steps.	Along with completing an additional year of monitoring on the iron filing ponds, the U of MN has a new project funded by the Local Road Research Board to study wetlands (historic/converted to pond) and have been conducting in situ monitoring and laboratory studies with sediment cores on a pond in Shorewood and Chanhassen. The district is currently in discussion with the U of MN with a new urban long-term ecological research (LTER) program in the Twin Cities. This study will investigate how urban stressors – climate change, pollutants, invasive species, habitat fragmentation – affect the ecological structure and functioning of urban nature, including pollinators, forests, watersheds, and lakes and streams. It will also address how diverse residents interact with and experience the benefits and burdens of urban nature. Ultimately, the aim is to better understand urban nature and related policies and practices, to improve environmental outcomes for all residents.	Stormwater ponds partners: Cities of Bloomington, Chanhassen, Eden Prairie, Minnetonka, Shorewood; U of MN

Watershed Plan	Review and identify needs for amendments.	No changes.	
Wetland Conservation Act (WCA)	Administer WCA within the Cities of Shorewood and Deephaven. Represent the District on Technical Evaluation Panel throughout the District.	No WCA applications have been received in Deephaven. No WCA applications have been received in Shorewood. Staff Dickhausen has been representing the District on TEP meetings in Chanhassen and Chaska.	City of Shorewood City of Deephaven City of Chanhassen City of Eden Prairie MCWD BWSR MN DNR ACOE
Wetland Management	Assess known existing wetlands, identify previously unknown wetlands, identify wetlands for potential restoration/ rehabilitation and wetlands requiring additional protection.	Staff Jeffery, Staff Dickhausen and Staff Nicklay continue updating the MNRAM Access database. Staff Dickhausen and Interim Administrator Jeffery are continuing to develop biological assessment metrics of wetlands with Barr Engineering staff to supplement District MNRAM assessments.	City of Chanhassen City of Eden Prairie Hennepin County Carver County MN DNR BWSR USFWS
Hennepin County Chloride Initiative	Phase 1: Develop a plan to target commercial and association-based sources or chloride pollution - businesses, malls, HOAs, property management companies and the private applicators that they hire. We will hire a consultant to facilitate focus groups with private applicators, as well as those that execute contracts with private applicators. These focus groups will help identify needs and barriers for our target audience. The consultant will compile information into a plan for implementation.	On Nov. 29, the HCCI group selected a marketing firm to develop a campaign to engage homeowner associations and faith-based communities on proper use of winter deicers. This selection will be presented at the board meeting on 12/8/2021.	Eleven watershed districts/WMOs Multiple cities MPCA Hennepin County Environmental Services Board of Water and Soil Resources
Lower Minnesota Chloride Cost-Share Program	The Lower Minnesota River Watersheds are coming together to offer cost-share grants.	Chloride Reduction cost-share grant remains open and is posted on District website and advertised through Fortin Consulting and the MPCA.	LMRWD RBWMO NMCWD
Bluff Creek 1W1P	**Description**	**Update**	**Partners**

Bluff Creek Tributary Restoration	Implement and finalize restoration. Monitor Project.	No new updates.	City of Chanhassen
Wetland Restoration at Pioneer Trl/Hwy 101	Remove 3 properties from flood zone, restore a minimum 7 acres and as many as 16 acres of wetlands, connect public with resources, reduction of volume, rate, pollution loads to Bluff Creek.	The site has been mostly graded. The new outlet structure and emergency overflow (EOF) has been installed. The site has been stabilized for the winter. Additional treatment of the site will occur in the early spring with planting late spring/early summer.	City of Chanhassen MN DNR Carver County
Riley Creek 1W1P	**Description**	**Update**	**Partners**
Lake Riley Alum Treatment	Continue monitoring of Lake.	Sediment coring occurred in October and results are pending.	
Lake Susan Improvement Phase 2	Complete final site stabilization andspring start up. Finalize and implement E & O for project. Monitor project.	No new updates.	City of Chanhassen Clean Water Legacy Amendment
Lake Susan Spent Lime	2021 startup and monitoring	The spent lime treatment system ran from May to November and was working with removals over 41% across the summer. Staff took the system offline this month. More information will be available in the water resources report. Staff and Barr will be coring the wetland within the Lake Susan Preserve, which drains into the facility to determine phosphorous loading from this wetland. This task order is included within the packet for the 12/8/21 meeting.	City of Chanhassen
Lower Riley Creek Stabilization	Coordinate agreement and acquire easements if needed for the restoration of Lower Riley Creek reach D3 and E. Implement Project. Continue Public Engagement for project and develop signage for restoration.	Maintenance of the site has been turned over to the City of Eden Prairie although the District staff will assist with inspections. Staff Forbes developed a project update for the project, which will be used as a template for other project updates.	City of Eden Prairie Lower MN River Watershed District
Rice Marsh Lake Alum Treatment	Continue monitoring of Lake.	Staff will be conducting sediment core sampling when ice us accessible to assess treatment effectiveness and prepare for a second dose application.	City of Eden Prairie City of Chanhassen
Rice Marsh Lake Watershed Load Project 1	Install proprietary BMPs. Install soil corrections and plant areas in native vegetation for long-term study	The two Krakens have been installed and work is continuing on the replacement and adjustment of downstream manhole structures. The site will be stabilized and restored in spring 2022.	City of Chanhassen

	of impact on soil health and runoff parameters. Install curb-cut rain garden.		
Upper Riley Creek	Work with city to develop scope of work (in addition to stabilizing the creek can we mitigate climate change). Conduct feasibility. Develop cooperative agreement withthe City of Chanhassen. Order project and begin design.	Interim Administrator Jeffery is working with Counselor Welch to develop the term sheet and subsequent cooperative agreement with Chanhassen. A public hearing will be held in December to order the project.	City of Chanhassen
Middle Riley Creek	Work with Bearpath HOA/Golf Course to develop scope of work (in addition to stabilizing the creek, can we mitigate climate change and provide for an improved recreational experience). Draft feasibility report. Develop cooperative agreement with Bearpath.	Sunram has completed the creek re-meander and has planted and stabilized their work. They will need to come back in the spring for follow up work. The contractor for Bearpath is continuing to perform work on the site.	Bearpath Neighborhood Association City of Eden Prairie MN DNR
St Hubert Water Quality Project	Repair eroded ravine tributary to RML. Install BMPs to provide water quality and quantity benefits for site. Develop curriculum to be used with teachers and students at St. Hubert. Establish native vegetation and monitor soil development, water quality/quantity benefits, and ecological changes.	The project is substantially complete. Interim Administrator Jeffery and Staff Mahon are working with the school to develop curriculum.	CCSWCD Metropolitan Council City of Chanhassen
Purgatory Creek 1W1P	**Description**	**Update**	**Partners**
PCRA Berm		Interim Administrator Jeffery is working with Eden Prairie to define roles and responsibilities.	City of Eden Prairie MN DNR
Duck Lake Water Quality Project	Work with the City to implement neighborhood BMP. Identify neighborhood BMP to help improve water resources to DuckLake. Implement neighborhood BMPs.	No changes	City of Eden Prairie

Lotus Lake Internal Load Control	Continue monitoring the Lake. Plan second alum application.	No new updates. Results will be available in the water resources report.	
Silver Lake Restoration	Order project. Design Project. Work with the City of Chanhassen for design, cooperative agreement, and implementation.	Molnau Trucking was substantially complete as of November 19, 2021. Contract required completion by September 30, 2021. There are a few punch list items outstanding.	City of Chanhassen

Professional Development

- Staff attended virtual MAWD conference. Staff Maxwell presented the results of the Lake Susan spent lime treatment system.
- Staff Mahon and Staff Maxwell attended a Lunch & Learn on Soil Health hosted by the City of Minnetonka.

Memorandum

To: Riley-Purgatory-Bluff Creek Watershed District Board of Managers and District Administrator
From: Barr Engineering Co.
Subject: Engineer's Report Summarizing November 2021 Activities for December 8, 2021, Board Meeting
Date: December 1, 2021

The purpose of this memorandum is to provide the Riley-Purgatory-Bluff Creek Watershed District (RPBCWD) Board of Managers and the District Administrator with a summary of the activities performed by Barr Engineering Co., serving in the role of District Engineer, during November 2021.

General Services

a. Participated in a 2022 work plan development meeting with Interim Administrator Jeffery and all RPBCWD staff on November 16th.

b. Developed technical memorandum and supporting information in coordination with RPBCWD staff and counsel Welch to inform the managers of the observed and potential impacts of the current Duck Lake outlet elevation.

c. Participated in the November 4th meeting with Interim Administrator Jeffery, and RPBCWD staff to discuss development of a web map application to improve data and information sharing.

d. Met virtually on November 19th with Manager Crafton, Interim Administrator Jeffery and staff Forbes to discuss the potential to pursue an MPCA resiliency grant to develop a resiliency plan for the district.

e. Met virtually on November 16th with Interim Administrator Jeffery and Counsel Welch about CIP payment application forms, Duck Lake Outlet, and Silver Lake CIP.

f. Participated in the November 3rd regular Board of Managers meeting.

g. Prepared Engineer's Report for engineering services performed during November 2021.

h. Miscellaneous discussions and coordination with Interim Administrator Jeffery about regulatory program, 2022 work plan, and upcoming Board meeting agenda.

Permitting Program

a. *Permit 2018-066 Castle Ridge Redevelopment*: This permit was originally approved in October 2019 for the redevelopment the Castle Ridge, Broadmoor, and two adjacent owned properties at the southwest quadrant of Flying Cloud Drive and Prairie Center Drive into mixed-use senior housing, market rate apartments, and commercial/retail mixed-use project. The permit modification was conditionally approved at the September 1st meeting. Worked with permit applicant and Phase 3 property owner on requested to be added to the Phase 3 owner to the permit and declaration covering the Phase 3 work.

b. *Permit 2021-063 Reserve at Autumn Woods*- The project proposes the construction of an 87-lot development West of Audubon Road and south of Autumn Wood Drive in Chaska. The site is proposed to be mass graded for roads, sidewalks, and building pads, as well as construction of supporting underground utilities and stormwater management. The project proposes construction of four infiltration basins and two ponds to provide stormwater quantity, volume, and rate quality control. The proposed project triggers RPBCWD's erosion prevention and sediment control, wetland buffers, and stormwater management rules. Reviewed revised materials received on October 25th and provided review comments. The application was considered complete with the October 25th submittal.. Coordinated with applicant to answer questions about review comments include emails and November19th virtual meeting.

c. *Permit 2021-068 Erhart Farm*- The project proposes the construction of a 21-lot development to the west of Hwy 101 in Chanhassen. The project proposes construction of a wet pond and infiltration basin to provide stormwater quantity, volume, and rate quality control. Responded to applicants questions about information need to fulfil conditions of approval.

d. *Per*mit 2021-076 Purgatory Creek Sediment Removal - The project proposes to remove accumulated sediment from Purgatory Creek at the Scenic Heights creek crossing in Minnetonka. The proposed project triggers RPBCWD's Floodplain Management and Drainage Alterations, Erosion Prevention and Sediment Control, Wetland and Creek Buffers, Dredging, and Waterbody Crossings and Structures rules. Reviewed November 8th submittal and prepared the permit report for consideration at RPBCWD's December 8th regular meeting..

e. *Permit* 2021-077 *Ravine 4&5 Stabilization* - The project proposes the restoration of two ravines within City of Chanhassen-owned parcels. The proposed project features include ravine/channel stabilization and regrading, placement of riprap and four (4) rock weirs along the Site 5 ravine, reconstruction of the pond outlet at Site 4, and pond dredging at Site 4. Runoff in the Site 5 ravine discharges to a wetland, which ultimately discharges to Lake Susan. The proposed project triggers RPBCWD's Floodplain Management and Drainage Alterations, Erosion Prevention and Sediment Control, Wetland and Creek Buffers, and Waterbody Crossings and Structures rules. Provided review comments for materials received on November 3rd and November 17th. The application is considered complete with the November 3rd submittal materials. Prepared the permit report for consideration at RPBCWD's December 8th regular meeting..

f. *Permit 2021-079 Tonka-Woodcroft Improvements*- The project proposes full reconstruction of the streets within the Tonka-Woodcroft neighborhood, an area south of Minnetonka Boulevard and between Larchwood Drive, Steele Street and Hillside Terrace in Minnetonka. The project proposes over 36 acres of land-disturbing activities. The project proposes construction of four underground detention systems and seven infiltration pipes to provide stormwater quantity, volume, and rate quality control. The proposed project triggers RPBCWD's floodplain management, erosion prevention and sediment control, wetland buffers, waterbody crossings and structures, and stormwater management rules. Provided additional review comments of the MIDS models and Snowmelt SSA Model provided after the initial review was complete in mid-October. Application remains incomplete. Met virtually with the applicants engineer to discuss review comments and potential design revision on November 12th.

g. *Permit 2021-082 Mister Car Wash* – The project proposes the redevelopment of an existing Bremer Bank site to a car wash building with associated parking, vacuum equipment, utilities, and landscaping. The proposed development is located on the northwest corner of MN HWY 7 and County Road 101 in Minnetonka. 0.85 acres will be disturbed during the redevelopment of the site. The developer proposes construction of an underground infiltration system to provide stormwater quantity, volume, and rate quality control. The proposed project triggers RPBCWD's erosion prevention and sediment control and stormwater management rules. Reviewed the November 1st submittal and provided review comments on November 19th along with an incomplete notice because of missing modeling submittals, in-situ infiltration testing, and permit fee deposit.

h. *Permit 2021-084 Chick-Fil-A Drive-Thru*– The project proposes adding another drive-thru lane and associated parking revision at the Chick-Fil-A in Chanhassen. The applicant proposes to use the existing on-site stormwater facilities constructed with permit 2016-014 to provide stormwater quantity and rate quality control. The project triggers RPBCWD's floodplain management, erosion prevention and sediment control, and stormwater management rules. Reviewed the November 9th submittal and provided review comments on November 23th along with an incomplete notice because of missing modeling submittals, engineer's opinion of cost, floodplain management materials, and permit fee deposit.

i. *Permit 2021-085 7851 Park Drive Expansion* – The project proposes an expansion of the outside gravel storage area and addition of a second driveway access at Lakeshore Equipment at 7851 Park Drive in Chanhassen. The outside storage area will be expanded by approximately 10,467 square feet. The applicant proposes construction of an stormwater filtration/detention swale to provide stormwater quantity, volume, and rate quality control. The project triggers RPBCWD's erosion prevention and sediment control, wetland buffers, and stormwater management rules. Reviewed the November 11th submittal and provided review comments on November 24th along with an incomplete notice because of missing modeling submittals, in-situ infiltration testing, and wetland delineation report.

i. Coordinated with the city of Eden Prairie and Stantec about the city's upcoming pond dredging project and methods that could be used to demonstrate compliance with RPBCWD's Waterbody Crossings and Structure rule (Rule G).Provided modeling results from RPBCWD hydrologic and hydraulic models to support their design efforts.

j. Miscellaneous preapplication calls from applicant with questions about rule applicability and criteria.

k. Miscellaneous conversations with Interim Administrator Jeffery about rule revision process, permit database status, which permits will be reviewed by staff versus Barr, and rule application.

Data Management/Sampling/Equipment Assistance

a. Prepared, loaded, and verified 9 RMB laboratory (RMB) reports.

b. Prepared, loaded, and verified pond and creek data collected in October 2021 that was collected with the Survey123 mobile application.

c. Reviewed and corrected data in the EQuIS Enterprise database after communication with the client.

Task Order 6: WOMP Station Monitoring

Purgatory Creek Monitoring Station at Pioneer Trail

a. Download and review data.

b. Storm event sampling – check station for sample.

Purgatory Creek Monitoring Station at Valley View Rd

a. Download and review data.

b. Storm event sampling – set up, collect, and deliver sample to lab.

Task Order 24B: Silver Lake Water Quality Improvement Project

a. Several meetings with Interim Administrator Jeffery and Counsel Welch on potential steps to remedy Molnau's lack of progress (not starting before substantial completion of September 30th)

b. Participate in a November 3rd virtual meeting with Contractor's Surety company related to Contractor's lack of progress.

c. During November the Contractor continued working on site grading, installation of manhole structures and pipes, installation of rock-checks, and site restoration. Substantial completion of reached on November 19th.

Looking westerly along Pleasantview at creek - November 18, 2021

Looking north toward Silver Lake - November 18, 2021

d. Developed a punch list of outstanding items to be complete and presented to Contractor on November 23rd with direction to complete the items prior to November 30th. Many of the items were not addressed as of November 30th.Items included on the punch list were as follows:

- Street sweeping and removal of topsoil/dirt over existing bituminous curb
- Clean-up/trash removal of staging area on north edge of road
- Traffic signage/cones/sand bags need to be removed
- Remove inlet protection/sediment logs in roadway – most are not in-place and are broken/in poor condition
- Silt fence along north edge of access needs to be reattached/stabilized

- Clean out catch basins and sump manhole (leaves/dirt in bottom of CBs/accumulated sediment in sump manhole)
- Touch up/clean up CB inverts/doghouse – cracks noted at the base when initially installed
- Broken FES/trash rack not attached on west side – broken piece should be grouted in place and trash rack attached.
- Clean off sanitary sewer manhole (partially buried in topsoil)

e. Significant construction oversight and administration(including but not limited to execution of Change Order 1 to address new/additional erosion along Pleasantview Road, decompaction, topsoil placement, and restoration)

f. Reviewed contractor's first application for payment and submitted recommendation memo to RPBCWD.

g. The extensive coordination efforts with the contractor this has taken more effort than allotted in the authorized construction administration budget. As of November 26th, the budget has been exceeded by roughly $11,000 due to the additional oversight needed.

Task Order 28B: Rice Marsh Lake (RM_12a) Water Quality Improvement Project

a. The RPBCWD Contractor began construction on November 16th. The Kraken filters were installed on Nov 18th and 19th.

b. Kraken Unit 1 was installed 6 inches too low. The structure is being reset on December 1st.

c. Permanent restoration is anticipated to be in place by mid-December.

Project site looking south towards Rice Marsh Lake

Installing one of the Kraken units

Task Order 29B: Middle Riley Creek (Reach R3) Stabilization Project Design

a. After beginning work on October 7th at the south site, Sunram wrapped up construction and seeding there on November 19th. Work included realigning the channel, placing in-channel structures including J-hooks and cross-vanes, placing coir-logs, grading banks, installing Vegetated Reinforced Soil Slopes (VRSS), placing riprap, installing a boulder wall with subsurface drainage, replacing a concrete catch basin and outlet structure, installing a bioswale, along with seeding and blanketing or mulching all disturbed ground. Additional vegetative plantings will take place in Spring 2022, including trees, live stakes and live plugs.

b. Work began at the north site November 1st, and all earthwork and placement of structures associated with the stream stabilization project was complete on November 5th. As of November 19th, seeding associated with Sunram's portion of the earthwork is complete. As of November 30th, Bearpath's contractor is still working on final grading of the golf course adjacent to the creek, so Sunram will return to the site this fall to seed the buffer area when that is complete. Additional vegetative plantings will also be installed at the north site in Spring 2022.

South site – looking westerly at creek - November 5, 2021

North site – looking northerly at boulder vane, coir log, and new creek alignment - November 8, 2021

c. Provided on-site construction observation with six (6) site visits to aid in field fitting stabilization features and answering contractor questions as well as questions raised by Bearpath.

d. Coordination/communication with Bearpath, Sunram Construction, Inc., and RPBCWD related to boulder wall construction and bioswale/buffer installation.

e. Reviewed contractor's first application for payment and submitted recommendation memo to RPBCWD.

f. The amended construction services budget for the Middle Riley Creek project is exhausted due to the extensive coordination and revisions to the cooperative agreement and declaration, more coordination with Bearpath than anticipated, boulder wall coordination, and needing to spend significantly more time directing the Contractor on field fitting the stream stabilization measures.

Task Order 30B: Pioneer Trail Wetland Restoration Project

a. Sunram Construction is completed excavation near the outlet and replacement of the outlet.

b. Flood storage excavation is complete, and much of the site has been temporarily stabilized with weed free mulch application over winter. A second round of herbicide treatment and final grading will occur in the spring 2022, and final restoration of the site will occur in the spring 2022.

c. Visited the site on November 18th and 19th to observe excavation, locate the existing draintile for connecting to the water level control structure, and to discuss the outlet configuration with the contractor.

d. Reviewed contractor's first application for payment and submitted recommendation memo to RPBCWD.

Excavated forebay and exposed existing draintile to tie into to level control structure

Partial straw mulch stabilization over excavated areas

Task Order 033: Wetland Assessment – Phase 1

a. Building a list of potential Technical Advisory Panel members

b. Continued drafting Phase 1 report to define ecosystem services and describe methodology for assessing each service.

Task Order 034: Lotus Lake Aquatic Vegetation Management Plan

a. Developed aquatic vegetation community summaries

b. Began drafting Aquatic Vegetation Management Plan

Task Order 035: Eden Prairie Stormwater Model Update and Flood-Risk Area Prioritization

a. This month staff have updated hydrologic parameters which include drainage area, impervious area, slope, overland roughness, and infiltration capacity of the soil into the stormwater model. Hydrologic parameters were updated to reflect the additional resolution in the subwatershed divides that were previously incorporated into the model.

b. Staff calculated updated storage curves for areas where additional detail is being included in the model. Storage curves are used by the model to calculate the volume of water stored on the ground surface or floodplain during a rainfall event. Adding resolution in the model results in simulating additional storage volume in ponds, wetlands, and topographic depressions.

c. The City's GIS files included information for approximately 80% of the additional storm sewer that was imported into the stormwater model. For areas where information is missing, placeholder values were used. City staff are reviewing locations of missing information and will be collecting additional information over the next several months. City staff estimate that additional information for the Riley Creek model will be available in December, and

information for the Purgatory Creek model will be available in January. When additional information is available, it will be imported into the District's stormwater model.

d. Next month staff will begin running design rainfall event simulations. The 500-year event will be run first to verify that overland flow paths in the model are accurately characterizing how water is conveyed through the terrain. Along with adding overland flow paths, staff will work on debugging the model, and checking that the model simulation is does not include instabilities or errors.

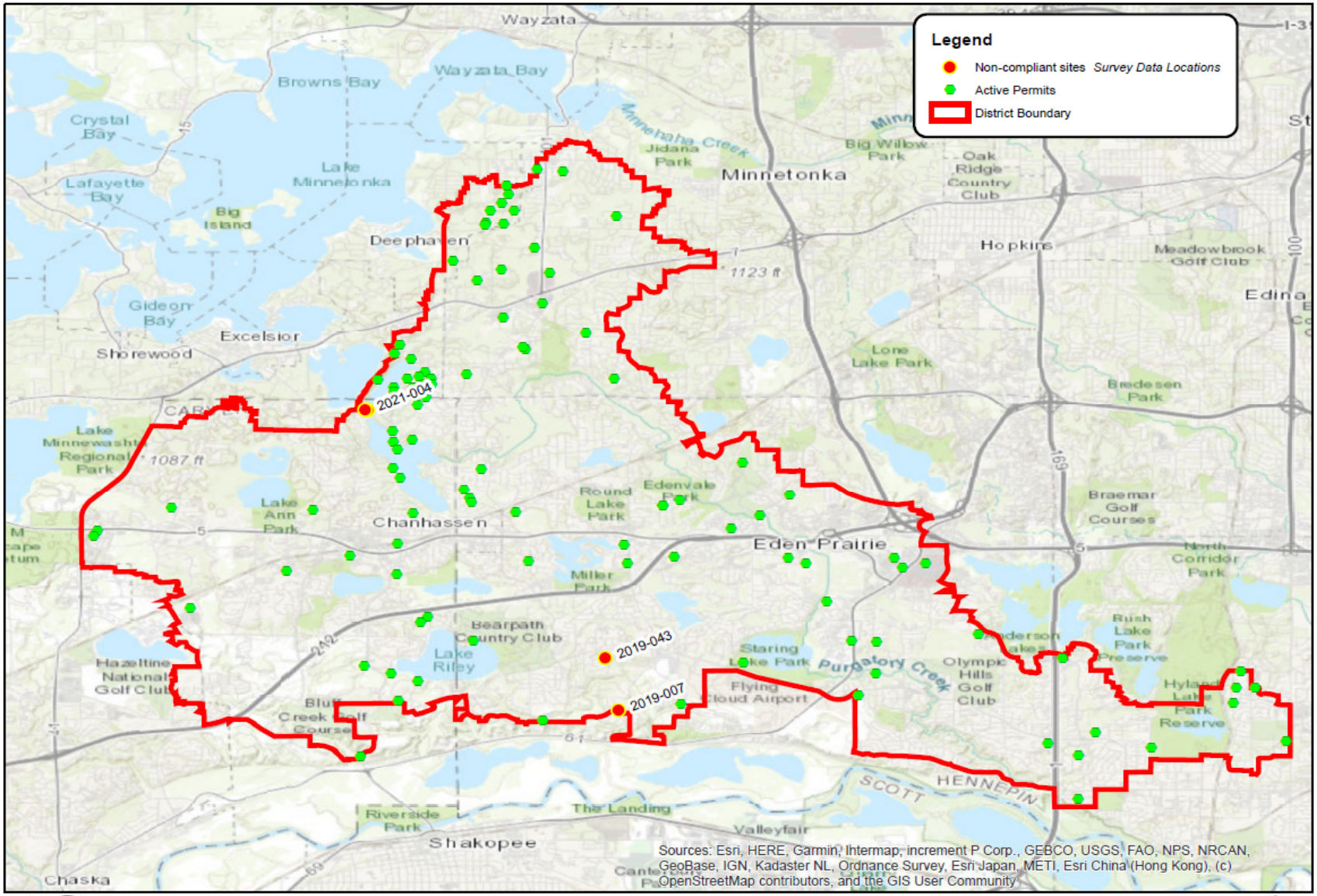
e. The schedule for this task order extends through 2022. In 2021 work will focus on updating the district's stormwater models for Riley Creek and Purgatory Creek to include additional detail within Eden Prairie. In 2022, work will include model validation, simulation of design events, inundation mapping, identification and prioritization of flood prone areas, and documentation.

Task Order 036A: Bluff Creek Reach 5 Concept Design

a. Finalizing feasibility assessment report including cost estimates for concept designs. Report will be sent to RPBCWD Board of Managers for review.

b. Discussed a potential scope adjustment with Interim Administrator Jeffery to consider wider watershed considerations that could be affecting this reach of stream (e.g., the wetland upstream of Galpin).

Permit #	Project Name	Address	City	Inspection Date	Time	Permimeter Control	Inlet Prot	Entrance	Sed Tracking	Soil Stabilization
2019-007	Beverly Hills	Beverly Dr	Eden Prairie	Monday, November 22, 2021	3:25:00 PM	Non_Compliant	Compliant	Compliant	Compliant	Compliant
2019-043	Cedarcrest Stables	Stirrup Lane	Eden Prairie	Monday, November 22, 2021	4:10:00 PM	Non_Compliant	Compliant	Non_Compliant	Compliant	Compliant
2021-004	Silver Lake WQ	Pleasantview Rd	Chanhassen	Wednesday, November 10, 2021	11:58:00 AM	Non_Compliant	Compliant	Compliant	Non_Compliant	Under Review
2021-004	Silver Lake WQ	Pleasantview Rd	Chanhassen	Monday, November 29, 2021	1:57:00 PM	Compliant	Compliant	Compliant	Compliant	Non_Compliant



RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

Non-Compliant Permit Inspections in Last Month

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BARR

November 15, 2021

Interim Administrator Terry Jeffery and Board of Managers
Riley-Purgatory-Bluff Creek Watershed District
18681 Lake Drive East
Chanhassen, MN 55317

Re: Pioneer Trail Wetland Restoration Project – Pay Application #1
Barr Project # 23/27-0053.14-030

Dear Terry and Board of Managers:

Enclosed is the Application for Payment #1 from Sunram Construction, Inc. for work completed through 11/3/21, on the above-referenced project. The Pioneer Trail Wetland Restoration project is located on the north side of Pioneer Trail just east of CSAH 101 in Chanhassen, Minnesota. The project includes blocking existing draintile, replacement of the surface outlet, grading within an existing wetland to increase floodplain storage, and restoration of land surrounding and within an existing wetland with native and diverse wetland and upland vegetation.

The work associated with Application for Payment #1 includes:

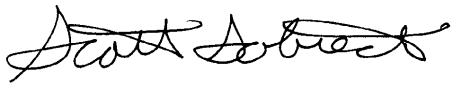
- Mobilization of the project
- Control of traffic along Pioneer Trail
- Installation of construction entrance and erosion control measures
- Herbicide treatment for invasive vegetation removal
- Clearing the site of unwanted and invasive vegetation
- Removal of trees within the floodplain excavation areas
- Removal of the existing surface outlets, storm sewer vaults, and retaining walls
- Removal of fencing
- Sealing and removal of well and associated casing
- Plugging of existing draintile lines
- Excavation and grading for increased floodplain storage
- Disposal of excavated and removed materials

Upon your review and approval, please sign three copies and return one copy to me, one copy to the contractor and retain the remaining copy for your files.

Barr Engineering has reviewed the application for payment, confirmed that the work for which payment is requested has been completed, believes that the work has been completed in accordance with the terms of the contract with the Riley Purgatory Bluff Creek Watershed District, and is recommending payment in the amount of **$79,604.66**. Payments shall be made directly to Sunram Construction, Inc.

Please call me at 952-832-2755 if you have any questions or concerns about the application for payment, or about any other related matters.

Sincerely,



Scott Sobiech, P.E.
Barr Engineering Co.

c: Ryan Sunram, Sunram Construction, Inc.

Enclosure #1 – Application for Payment – Progress Payment 1

Pioneer Trail Wetland Restoration Project
Progress Payment Number 1

1.0	Total Completed Through This Period	$ 83,794.38		
2.0	Total Completed Previous Period		$0.00	
3.0	Total Completed This Period			$ 83,794.38
4.0	Amount Retained, Previous Period		$0.00	
5.0	Amount Retained, This Period (See Note 1)		$4,189.72	
6.0	Total Amount Retained		$4,189.72	
7.0	Retainage Released Through This Period:			$0.00
8.0	Amount Due This Period			$79,604.66

Note 1: At rate of 5% until Completed to Date equals 50% of current Contract Price and a rate of 0% thereafter.

SUBMITTED BY:

Name: Ryan Sunram Date: 11/15/21

Title: Project Manager

Contractor: Sunram Construction, Inc.

Signature: Ryan M. Sunram

RECOMMENDED BY:

Name: Scott Sobiech Date: 11/17/2021

Title: District Engineer

Engineer: Barr Engineering Company

Signature: Scott Sobiech

APPROVED BY:

Name: _____ Date: _____

Title: _____

Owner: Riley Purgatory Bluff Creek Watershed District

Signature: _____

Pioneer Trail Wetland Restoration Project
Riley Purgatory Bluff Creek Watershed District
Summary of Work Completed Through November 3rd, 2021- for Progress Payment Number 1

							(1) Total Completed Through This Period		Percent Complete	(2) Total Completed This Period	
1.04 Item	Description	Unit	Estimated Quantity	Unit Price	Extension		Quantity	Amount		Quantity	Amount
A	Mobilization/Demobilization	L.S.	1	$ 18,550.75	$ 18,550.75		0.5	$9,275.38	50%	0.5	$9,275.38
B	Traffic Control	L.S.	1	$ 2,500.00	$ 2,500.00		0.5	$1,250.00	50%	0.5	$1,250.00
C	Rock Erosion Control Construction Entrance	Each	1	$ 850.00	$ 850.00		1	$850.00	100%	1	$850.00
D	Clearing & Grubbing (P)	Acre	2	$ 1,820.00	$ 2,730.00		1.5	$2,730.00	100%	1.5	$2,730.00
E	Remove Storm Sewer (P)	L.F.	260	$ 13.50	$ 3,510.00		260	$3,510.00	100%	260	$3,510.00
F	Remove Fence	L.F.	440	$ 8.00	$ 3,520.00		440	$3,520.00	100%	440	$3,520.00
G	Remove Gravel Driveway (P)	S.Y.	173	$ 5.25	$ 908.25		0	$0.00	0%		$0.00
H	Remove Well	Each	1	$ 13,000.00	$ 13,000.00		1	$13,000.00	100%	1	$13,000.00
I	Remove Retaining Wall (P)	L.F.	70	$ 25.00	$ 1,750.00		70	$1,750.00	100%	70	$1,750.00
J	Remove Bituminous Pavement (P)	S.F.	940	$ 2.75	$ 2,585.00		0	$0.00	0%		$0.00
K	Remove and Dispose Concrete Vault	Each	2	$ 875.00	$ 1,750.00		2	$1,750.00	100%	2	$1,750.00
L	Trench Cut Draintile and Abandon In Place	L.S.	1	$ 1,100.00	$ 1,100.00		1	$1,100.00	100%	1	$1,100.00
M	Tree Removal (8-inch or larger)	Each	2	$ 630.00	$ 1,260.00		4	$2,520.00	200%	4	$2,520.00
N	Erosion Control Silt Fence	L.F.	300	$ 2.75	$ 825.00		300	$825.00	100%	300	$825.00
O	Erosion Control Blanket	S.Y.	1,720	$ 4.20	$ 7,224.00		0	$0.00	0%		$0.00
P	Excavation and Haul Offsite (P)	C.Y.	2,954	$ 27.25	$ 80,496.50		784	$21,364.00	27%	784	$21,364.00
Q	Grading and Replacement of Topsoil (P)	S.Y.	14,030	$ 1.75	$ 24,552.50		10000	$17,500.00	71%	10000	$17,500.00
R	Shrub Carr Seed Mix	Acre	1	$ 2,090.00	$ 1,463.00		0	$0.00	0%		$0.00
S	Wet Prairie - Partial Shade Seed Mix	Acre	1	$ 2,185.00	$ 2,185.00		0	$0.00	0%		$0.00
T	Wet Meadow Seed Mix	Acre	3	$ 1,445.00	$ 4,624.00		0	$0.00	0%		$0.00
U	Mesic Prairie Seed Mix	Acre	1	$ 1,805.00	$ 1,805.00		0	$0.00	0%		$0.00
V	Emergent Wetland Seed Mix	Acre	1	$ 1,665.00	$ 2,331.00		0	$0.00	0%		$0.00
W	Live Stake (Furnish and Install)	Each	250	$ 16.00	$ 4,000.00		0	$0.00	0%		$0.00
X	#15 Cont. Tree (Furnish and Install)	Each	48	$ 240.00	$ 11,520.00		0	$0.00	0%		$0.00
Y	#10 Cont. Tree (Furnish and Install)	Each	12	$ 165.00	$ 1,980.00		0	$0.00	0%		$0.00
Z	Shrub, Bare Root (Furnish and Install)	Each	50	$ 8.50	$ 425.00		0	$0.00	0%		$0.00
AA	#1 Cont. Shrub (Furnish and Install)	Each	62	$ 21.00	$ 1,302.00		0	$0.00	0%		$0.00
BB	#2 Cont. Shrub (Furnish and Install)	Each	338	$ 42.00	$ 14,196.00		0	$0.00	0%		$0.00
CC	Herbaceous Plug (Furnish and Install)	Each	2,500	$ 3.95	$ 9,875.00		0	$0.00	0%		$0.00
DD	Straw Mulch	Acre	2	$ 1,420.00	$ 2,840.00		0	$0.00	0%		$0.00
EE	Furnish & Install Draintile	L.F.	50	$ 23.00	$ 1,150.00		0	$0.00	0%		$0.00
FF	Furnish & Install Storm Sewer	L.F.	120	$ 63.25	$ 7,590.00		0	$0.00	0%		$0.00
GG	Furnish & Install Flared End Section	Each	6	$ 775.00	$ 4,650.00		0	$0.00	0%		$0.00
HH	Furnish & Install Inline Check Valve	Each	2	$ 4,875.00	$ 9,750.00		0	$0.00	0%		$0.00
II	Furnish and Install Buffer Markers	Each	10	$ 250.00	$ 2,500.00		0	$0.00	0%		$0.00
JJ	Random Riprap, Class II with Aggregate Filter/Fabric (P)	Ton	70	$ 105.00	$ 7,350.00		0	$0.00	0%		$0.00
KK	Furnish & Install Turf Reinforcement Mat	S.Y.	175	$ 25.00	$ 4,375.00		0	$0.00	0%		$0.00
LL	Furnish & Install Water Level Control Structure	Each	1	$ 2,450.00	$ 2,450.00		0	$0.00	0%		$0.00
MM	Invasive Species Removal and Control Prior to Final Seeding	Each	2	$ 1,425.00	$ 2,850.00		2	$2,850.00	100%	2	$2,850.00
NN	Year 1 Vegetation Establishment	L.S.	1	$ 9,500.00	$ 9,500.00		0	$0.00	0%		$0.00
OO	Year 2 Vegetation Establishment	L.S.	1	$ 9,000.00	$ 9,000.00		0	$0.00	0%		$0.00
PP	Year 3 Vegetation Establishment	L.S.	1	$ 8,275.00	$ 8,275.00		0	$0.00	0%		$0.00
				Total:	**$ 295,098.00**			**$ 83,794.38**			**$ 83,794.38**

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BARR

November 17, 2021

President Dick Ward and Board of Managers
Riley-Purgatory-Bluff Creek Watershed District
18681 Lake Drive East
Chanhassen, MN 55317

Re: Middle Riley Creek Stabilization Project – Pay Application #1
Barr Project # 23/27-0053.14-029

Dear President Ward and Board of Managers:

Enclosed is the Application for Payment #1 from Sunram Construction, Inc. for work completed through 10/31/2021, on the above-referenced project. Upon your review and approval, please sign and return one copy to me. Barr will distribute a scan to the contractor and RPBCWD Administrator for district files.

Major items of work covered by this pay application include:

- Project mobilization
- Water control (includes monitoring weather and staging construction to avoid high water conditions)
- Traffic control (includes placing signs adjacent to work area)
- Clearing and grubbing prior to construction (includes tree removal and salvaging logs for in-stream structures)
- Temporary creek crossing installation
- Erosion control (seeding/erosion control blanket and sediment bio-log installation)
- Floating silt curtain installation at the downstream end of the project
- Installation of in-stream features (rock riffles, VRSS lifts, cross vanes, J-hooks, coir logs), including supplying riprap, boulders and granular filter
- Excavation of new channel and filling of original channel
- Channel and bank grading
- Topsoil installation (salvaged and imported)
- Rock wall installation
- Surface drain installation (includes 4-inch CPEP drain tile and 8-inch drain basin)

Barr Engineering has reviewed the application for payment, confirmed that the work for which payment is requested has been completed, believes that the work has been completed in accordance with the terms of the contract with the Riley Purgatory Bluff Creek Watershed District, and is recommending payment in the amount of **$228,639.93**. Payments shall be made directly to Sunram Construction, Inc.

Please call me at 952-832-2755 if you have any questions or concerns about the application for payment, or about any other related matters.

Sincerely,

Scott Sobiech, P.E.
Barr Engineering Co.

c: Terry Jeffery, RPBCWD
Ryan Sunram, Sunram Construction, Inc.

Enclosure #1 – Application for Payment – Progress Payment

Middle Riley Creek Stabilization Project
Progress Payment Number 1

1.0	Total Completed Through This Period	$239,629.48		
2.0	Total Completed Through Previous Period		$0.00	
3.0	Total Completed This Period			$239,629.48
4.0	Amount Retained, Previous Period		$0.00	
5.0	Amount Retained, This Period (See Note 1)		$10,989.55	
6.0	Total Amount Retained		$10,989.55	
7.0	Retainage Released This Period:			$0.00
8.0	Total Retainage Released Through This Period:		$0.00	
9.0	Retainage Held by District:		$10,989.55	
10.0	Amount Due This Period			$228,639.93

Note 1: At rate of 5% until Completed to Date equals 50% of current Contract Price and a rate of 0% thereafter.

SUBMITTED BY:

Name: Ryan Sunram Date: 11/16/21

Title: President

Contractor: Sunram Construction, Inc.

Signature: Ryan M. Sunram

RECOMMENDED BY:

Name: Scott Sobiech Date: 11/17/2021

Title: District Engineer

Engineer: Barr Engineering Company

Signature: Scott Sobiech

APPROVED BY:

Name: _____ Date: _____

Title: _____

Owner: Riley Purgatory Bluff Creek Watershed District

Signature: _____

Middle Riley Creek Stabilization Project
Riley Purgatory Bluff Creek Watershed District
Summary of Work Completed Through October 31, 2021 - for Progress Payment Number 1

						(1) Total Completed Through This Period		Percent Complete	(2) Total Completed This Period	
1.04 Item	Description	Unit	Estimated Quantity	Unit Price	Extension	Quantity	Amount		Quantity	Amount
A	Mobilization	LS	1	$ 20,000.95	$ 20,000.95	0.5	$10,000.48	50%	0.5	$10,000.48
B	Control of Water	LS	1	$ 100.00	$ 100.00	1	$100.00	100%	1	$100.00
C	Traffic Control	LS	1	$ 1,000.00	$ 1,000.00	0.5	$500.00	50%	0.5	$500.00
D	Construction Entrance	EA	2	$ 1,250.00	$ 2,500.00	0	$0.00	0%	0	$0.00
E	Silt Fence, Type MS	LF	2200	$ 2.75	$ 6,050.00	0	$0.00	0%	0	$0.00
F	Erosion Log (Bio-log)	LF	1220	$ 42.00	$ 51,240.00	980	$41,160.00	80%	980	$41,160.00
G	Temporary Creek Crossing	EA	3	$ 850.00	$ 2,550.00	3	$2,550.00	100%	3	$2,550.00
H	Silt Curtain	LF	80	$ 12.00	$ 960.00	20	$240.00	25%	20	$240.00
I	Inlet Protection	EA	5	$ 150.00	$ 750.00	0	$0.00	0%	0	$0.00
J	Clearing and Grubbing (Medium Density)	LS	1	$ 54,500.00	$ 54,500.00	1	$54,500.00	100%	1	$54,500.00
K	Select Tree Removal and Salvage for Log Vane (8- to 12-inch Diameter)	EA	7	$ 605.00	$ 4,235.00	7	$4,235.00	100%	7	$4,235.00
L	Select Tree Removal and Salvage for Log Vane (Greater than 12-inch Diameter)	EA	7	$ 1,130.00	$ 7,910.00	7	$7,910.00	100%	7	$7,910.00
M	Tree Removal	EA	16	$ 460.00	$ 7,360.00	13	$5,980.00	81%	13	$5,980.00
N	Grading (P)	SY	1220	$ 6.50	$ 7,930.00	850	$5,525.00	70%	850	$5,525.00
O	Furnish and Install Bioswale	LF	1200	$ 28.50	$ 34,200.00	0	$0.00	0%	0	$0.00
P	Excavate New Channel	CY	390	$ 8.25	$ 3,217.50	390	$3,217.50	100%	390	$3,217.50
Q	Fill Old Channel	CY	390	$ 8.25	$ 3,217.50	390	$3,217.50	100%	390	$3,217.50
R	Salvage Existing Rock and Furnish and Install Rock Wall ? Adjacent to Green	SY	22	$ 325.00	$ 7,150.00	22	$7,150.00	100%	22	$7,150.00
S	Salvage Existing Rock and Furnish and Install Rock Wall ? Adjacent to Bunker	SY	35	$ 325.00	$ 11,375.00	35	$11,375.00	100%	35	$11,375.00
T	Remove and Dispose of Existing 24-inch RCP	LF	13	$ 25.00	$ 325.00	0	$0.00	0%	0	$0.00
U	Remove and Dispose of Existing FES	EA	1	$ 500.00	$ 500.00	0	$0.00	0%	0	$0.00
V	Furnish and Install Manhole	EA	1	$ 5,750.00	$ 5,750.00	0	$0.00	0%	0	$0.00
W	Furnish and Install Manhole Casting	EA	1	$ 750.00	$ 750.00	0	$0.00	0%	0	$0.00
X	Furnish and Install 24-inch RCP	LF	8.2	$ 203.00	$ 1,664.60	0	$0.00	0%	0	$0.00
Y	Furnish and Install FES	EA	1	$ 2,250.00	$ 2,250.00	0	$0.00	0%	0	$0.00
Z	Furnish and Install 8-inch Drain Basin	EA	2	$ 965.00	$ 1,930.00	2	$1,930.00	100%	2	$1,930.00
AA	Furnish and Install 4-inch CPEP Drain Tile	LF	190	$ 19.75	$ 3,752.50	190	$3,752.50	100%	190	$3,752.50
BB	Restore Golf Course Green (Grading)	SY	110	$ 28.00	$ 3,080.00	0	$0.00	0%	0	$0.00
CC	Furnish and Install Rock Riffles	EA	4	$ 1,335.00	$ 5,340.00	4	$5,340.00	100%	4	$5,340.00
DD	Furnish and Install Riprap	SY	150	$ 94.00	$ 14,100.00	150	$14,100.00	100%	150	$14,100.00
EE	Furnish and Install Boulder Vane	LF	140	$ 57.50	$ 8,050.00	75	$4,312.50	54%	75	$4,312.50
FF	Furnish and Install J-hook Log Vane	EA	7	$ 1,120.00	$ 7,840.00	5	$5,600.00	71%	5	$5,600.00
GG	Furnish and Install VRSS	LF	350	$ 45.00	$ 15,750.00	350	$15,750.00	100%	350	$15,750.00
HH	Furnish and Install 12-inch Diameter Coir Bio-roll	LF	320	$ 32.00	$ 10,240.00	320	$10,240.00	100%	320	$10,240.00
II	Import and Place Topsoil	CY	1650	$ 34.00	$ 56,100.00	616	$20,944.00	37%	616	$20,944.00
JJ	Remove and Dispose of Bituminous Golf Cart Path	SY	382	$ 4.25	$ 1,623.50	0	$0.00	0%	0	$0.00
KK	Furnish and Install Bituminous Golf Cart Path	SY	382	$ 32.75	$ 12,510.50	0	$0.00	0%	0	$0.00
LL	Furnish and Install Short Riparian Seed Mix	AC	0.82	$ 2,465.00	$ 2,021.30	0	$0.00	0%	0	$0.00
MM	Furnish and Install Short Upland Seed Mix	AC	1.4	$ 1,410.00	$ 1,974.00	0	$0.00	0%	0	$0.00
NN	Furnish and Install Shrubs, #2 Pot	EA	274	$ 57.75	$ 15,823.50	0	$0.00	0%	0	$0.00
OO	Furnish and Install Plugs	EA	2000	$ 2.40	$ 4,800.00	0	$0.00	0%	0	$0.00
PP	Furnish and Install Dormant Cuttings (4-foot to 6-foot Lengths)	EA	307	$ 5.70	$ 1,749.90	0	$0.00	0%	0	$0.00
QQ	Furnish and Install Live Stakes	EA	355	$ 5.25	$ 1,863.75	0	$0.00	0%	0	$0.00
RR	Furnish and Plant Trees	EA	18	$ 600.00	$ 10,800.00	0	$0.00	0%	0	$0.00
SS	Restore Golf Course Green (vegetation - Sod)	SY	110	$ 15.00	$ 1,650.00	0	$0.00	0%	0	$0.00
TT	Furnish and Install Erosion Control Blanket Category 3N	SY	2220	$ 2.05	$ 4,551.00	0	$0.00	0%	0	$0.00
UU	Furnish and Install Straw Mulch	SY	10410	$ 0.15	$ 1,561.50	0	$0.00	0%	0	$0.00
VV	Annual Vegetation Establishment and Maintenance	EA	3	$ 4,875.00	$ 14,625.00	0	$0.00	0%	0	$0.00
WW	Bioswale Seed Mix	SY	180	$ 2.00	$ 360.00	0	$0.00	0%	0	$0.00
				Total Base Bid:	$ 439,582.00					

(1) Total Completed Through This Period			(2) Total Completed This Period	
	$239,629.48			$239,629.48

	MIDDLE RILEY CREEK STABILIZATION - EDEN PRAIRIE					11/15/2021							
	RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT (MEETS 1ST WED)					Quantity	Quantity	Quantity	Quantity	Total			
Item													
Code	Item Description	UofM	Quantity	Unit Price	Extension	Pay 1	Pay 2	Pay 3	Pay 4	Complete			
A	Mobilization	LS	1	20,000.95	$20,000.95	0.5				$10,000.48	GORMAN	$ 22,105	
B	Control of Water	LS	1	100.00	$100.00	1				$100.00			
C	Traffic Control	LS	1	1,000.00	$1,000.00	0.5				$500.00			
D	Construction Entrance	EA	2	1,250.00	$2,500.00	0				$0.00			
E	Silt Fence, Type MS	LF	2200	2.75	$6,050.00					$0.00			
F	Erosion Log (Bio-log)	LF	1220	42.00	$51,240.00	980				$41,160.00	9/8 TYLER 891, 9/30 TYLER 250, 10/28 TYLER 774		
G	Temporary Creek Crossing	EA	3	850.00	$2,550.00	3				$2,550.00	RYAN		
H	Silt Curtain	LF	80	12.00	$960.00	20				$240.00			
I	Inlet Protection	EA	5	150.00	$750.00					$0.00			
J	Clearing and Grubbing (Medium Density)	LS	1	54,500.00	$54,500.00	1				$54,500.00	YTS 67%		
K	Select Tree Removal and Salvage for Log Vane (8- to 12-inch Diameter)	EA	7	605.00	$4,235.00	7				$4,235.00	YTS 5		
L	Select Tree Removal and Salvage for Log Vane (Greater than 12-inch Diameter)	EA	7	1,130.00	$7,910.00	7				$7,910.00	YTS 5		
M	Tree Removal	EA	16	460.00	$7,360.00	13				$5,980.00	YTS 25		
N	Grading (P)	SY	1220	6.50	$7,930.00	850				$5,525.00			
O	Furnish and Install Bioswale	LF	1200	28.50	$34,200.00					$0.00			
P	Excavate New Channel	CY	390	8.25	$3,217.50	390				$3,217.50			
Q	Fill Old Channel	CY	390	8.25	$3,217.50	390				$3,217.50			
R	Salvage Existing Rock and Furnish and Install Rock Wall ? Adjacent to Green	SY	22	325.00	$7,150.00	22				$7,150.00	Sunram		
S	Salvage Existing Rock and Furnish and Install Rock Wall ? Adjacent to Bunker	SY	35	325.00	$11,375.00	35				$11,375.00	Sunram		
T	Remove and Dispose of Existing 24-inch RCP	LF	13	25.00	$325.00					$0.00			
U	Remove and Dispose of Existing FES	EA	1	500.00	$500.00					$0.00			
V	Furnish and Install Manhole	EA	1	5,750.00	$5,750.00					$0.00			
W	Furnish and Install Manhole Casting	EA	1	750.00	$750.00					$0.00			
X	Furnish and Install 24-inch RCP	LF	8.2	203.00	$1,664.60					$0.00			
Y	Furnish and Install FES	EA	1	2,250.00	$2,250.00					$0.00			
Z	Furnish and Install 8-inch Drain Basin	EA	2	965.00	$1,930.00	2				$1,930.00			
AA	Furnish and Install 4-inch CPEP Drain Tile	LF	190	19.75	$3,752.50	190				$3,752.50			
BB	Restore Golf Course Green (Grading)	SY	110	28.00	$3,080.00					$0.00			
CC	Furnish and Install Rock Riffles	EA	4	1,335.00	$5,340.00	4				$5,340.00	Ryan		
DD	Furnish and Install Riprap	SY	150	94.00	$14,100.00	150				$14,100.00	Ryan		
EE	Furnish and Install Boulder Vane	LF	140	57.50	$8,050.00	75				$4,312.50	Ryan	Milton 153 tons	
FF	Furnish and Install J-hook Log Vane	EA	7	1,120.00	$7,840.00	5				$5,600.00	Tyler		
GG	Furnish and Install VRSS	LF	350	45.00	$15,750.00	350				$15,750.00	Tyler		
HH	Furnish and Install 12-inch Diameter Coir Bio-roll	LF	320	32.00	$10,240.00	320				$10,240.00	Ryan		
II	Import and Place Topsoil	CY	1650	34.00	$56,100.00	616				$20,944.00	Ryan	Tickets 616 cy = 44 Loads @ 14	
JJ	Remove and Dispose of Bituminous Golf Cart Path	SY	382	4.25	$1,623.50					$0.00			
KK	Furnish and Install Bituminous Golf Cart Path	SY	382	32.75	$12,510.50					$0.00	Bituminous Roadways		
LL	Furnish and Install Short Riparian Seed Mix	AC	0.82	2,465.00	$2,021.30					$0.00	Cardno		
MM	Furnish and Install Short Upland Seed Mix	AC	1.4	1,410.00	$1,974.00					$0.00	Cardno		
NN	Furnish and Install Shrubs, #2 Pot	EA	274	57.75	$15,823.50					$0.00	Cardno		
OO	Furnish and Install Plugs	EA	2000	2.40	$4,800.00					$0.00	Cardno		
PP	Furnish and Install Dormant Cuttings (4-foot to 6-foot Lengths)	EA	307	5.70	$1,749.90					$0.00	Cardno		
QQ	Furnish and Install Live Stakes	EA	355	5.25	$1,863.75					$0.00	Cardno		
RR	Furnish and Plant Trees	EA	18	600.00	$10,800.00					$0.00	Cardno		
SS	Restore Golf Course Green (vegetation - Sod)	SY	110	15.00	$1,650.00					$0.00	Cardno		
TT	Furnish and Install Erosion Control Blanket Category 3N	SY	2220	2.05	$4,551.00					$0.00	Cardno		
UU	Furnish and Install Straw Mulch	SY	10410	0.15	$1,561.50					$0.00	Cardno		
VV	Annual Vegetation Establishment and Maintenance	EA	3	4,875.00	$14,625.00					$0.00	Cardno		
WW	Bioswale Seed Mix	SY	180	2.00	$360.00					$0.00	Cardno		
					$439,582.00					$239,629.48			
	PAY APP 1 $239,629.48												

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

18681 Lake Drive East
Chanhassen, MN 55317
952-607-6512
www.rpbcwd.org

Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2021-048

Considered at Board of Managers Meeting: December 8, 2021

Received complete: October 28, 2021

Applicant:	Amy Vogel
Consultant:	Natural Environments Corp, Paul Liesmaki
Project:	Shoreline Stabilization – The applicant proposes stabilization of approximately 103 feet of Lake Riley shoreline at 9641 Meadowlark Lane in Chanhassen.
Location:	9641 Meadowlark Lane, Chanhassen, MN
Reviewer:	Scott Sobiech, PE, Barr Engineering

Proposed Board Action

Manager _____ moved and Manager _____ seconded adoption of the following resolutions based on the permit report that follows and the presentation of the matter at the December 8, 2021 meeting of the managers. Resolved that the application for Permit 2021-048 is approved, subject to the conditions and stipulations set forth in the Recommendations section of the attached report;

Resolved that on determination by the RPBCWD administrator that the conditions of approval have been met, the RPBCWD president or administrator is authorized and directed to sign and deliver Permit 2021-048 to the applicant on behalf of RPBCWD.

Upon vote, the resolutions were adopted, _____ [VOTE TALLY].

Rule Conformance Summary

Rule	Issue	Conforms to RBPCWD Rules?	Comments
B	**Floodplain Management and Drainage Alterations**	Yes	
C	**Erosion Prevention and Sediment Control**	See Comment	See Rule Specific Permit Condition C1 to provide name and contact information for the individual responsible for erosion control.
D	**Wetland and Creek Buffers**	Yes	Recorded buffers under previously approved Permit 2016-003
F	**Shoreline and Streambank Stabilization**	Yes	
L	**Permit Fee**	See Comment	$200 fee deposit received on June 30, 2021.
M	**Financial Assurance**	See Comment	The financial assurance is calculated at $12,513

Project Background

The project is located at the residence at 9641 Meadowlark Lane in Chanhassen riparian to Lake Riley. The proposed project includes installation of vegetated riprap 52 feet and bioengineering methods along 36 feet of shoreline to stabilize the property shoreline along Lake Riley. The applicant also proposes to install 15 feet of sand blanket surrounded by boulders along the shoreline.

The Applicant constructed a new single-family home on an existing single-family home property at the site under RPBCWD permit 2016-003. The work authorized by 2016-003 included construction of a house, associated driveway and parking area, waterbody crossing through the wetland in order to gain access to the property. There were three Wetland Conservation Act (WCA) protected wetlands and a watercourse on the site and Lake Riley abuts it. Under Permit 2016-003, the applicant recorded the required wetland and creek buffer maintenance declaration in conformance with Rule D. The applicant used wetland buffers to provide for stormwater management. Because buffer area created under permit 2016-003 is subject to a recorded declaration, area disturbed within the recorded buffer must be restored with native vegetation.

Because it has been more than 5 years since approval of permit 2016-003, the applicant provided an updated wetland delineation report dated August 24, 2021 to the City of Chanhassen, the local governmental unit responsible for administering WCA, and RPBCWD. On October 18, 2021 the City issued WCA Notice of Decision finding "*The TEP met on-site to discuss the wetland delineation on September 29, 2021. The TEP all came to the conclusion that the shoreline wetland was not a wetland and should be excluded from the wetland delineation figure. An updated delineation figure was provided on 10/8/2021.*" Because the LGU approved a new type and boundary determination showing no shoreline wetland and surface runoff from the proposed land-disturbing activities to construct the access to the shoreline is upgradient from the onsite watercourse and WCA protected wetland, the proposed land-disturbing activities associated with the current permit application (2021-048) must conform with RPBCWD buffer requirements. Under prior approved Permit 2016-003, the applicant recorded the required wetland and creek buffer maintenance declaration in conformance with Rule D.

The project site information is summarized below:

Description	Area
Total Site Area	2.4 acres
Length of Shoreline impacted	103 feet
New (Increase) in Site Impervious Area	0
Disturbed impervious surface	0
Total Disturbed Area	0.03 acres

The following materials were reviewed in support of the permit request:

- Permit application received June 17, 2021 (Incomplete notice was sent on July 5, 2021; materials submitted to complete application on October 28, 2021)

- Erosion intensity worksheet received July 22, 2021 (revised July 30, 2021)
- Construction drawing dated May 18, 2021 (revised July 22, 2021, July 27, 2021, and October 28, 2021)
- Wetland Delineation report dated August 24, 2021
- WCA Notice of application dated September 17, 2021
- WCA Notice of Decision Dated October 18, 2021

Rule Specific Permit Conditions

Rule B: Floodplain Management and Drainage Alterations

Because the project will involve land-disturbing activities below the 100-year floodplain of Lake Riley (866.3 msl) to stabilize an eroding shoreline, the project must conform to the requirements in the RPBCWD Floodplain Management and Drainage Alteration rule (Rule B, Subsection 2.1).

Rule B, Subsections 3.1 and 3.4 are not relevant because no buildings will be constructed or reconstructed as part of the project, and the no impervious surface will be created or re-created within 50 feet of the watercourse on the property. Because the cross section information provided on the drawing shows proposed excavation and installation of stabilization measures will be below the existing ground level and the excavation of the existing bank to construct the proposed sand blanket will result in a net increase in floodplain storage of 8.5 cubic yards, the proposed project will not result in loss of flood storage below the 100-year flood elevation and the project conforms to Rule B, Subsection 3.2. Because the applicant has demonstrated and the engineer concurs that the project will preserve the existing 100-year flood level, the project will not alter surface flows, complying with subsection 3.3. The information on the plan sheet includes a note indicating that activities must be conducted to minimize the potential transfer of aquatic invasive species conforming to Rule B, Subsection 3.6.

The RPBCWD Engineer concurs that the proposed project conforms to the floodplain management and drainage alteration requirements of Rule B.

Rule C: Erosion and Sediment Control

Because the project will alter more than 50 cubic yards of earth, the project must conform to the requirements in the RPBCWD Erosion and Sediment Control rule (Rule C, Subsection 2.1).

The drawing prepared by Natural Environments Corp includes installation of floating silt curtain, installation of a construction entrance, placement of a minimum of 6 inches of topsoil, and decompaction of areas compacted during construction. The drawing indicates that Natural Environments Corp will be responsible for erosion prevention and sediment control for the site . To conform to the RPBCWD Rule C requirements the following revisions are needed:

C1. A perimeter erosion control practices (e.g., biologs, silt fence, etc.) must be installed along the downgradient edge of the access route between the driveway and lake shore.

C2. The Applicant must provide the name and contact information of a specific individual responsible for erosion and sediment control at the site. RPBCWD must be notified if the responsible party changes during the permit term.

Rule F: Shoreline and Streambank Stabilization

Because the proposed project will install bioengineering and vegetated riprap to stabilize a portion of the shoreline of Lake Riley, the project must conform to the requirements in the RPBCWD Shoreline and Streambank Stabilization rule (Rule F, Subsection 2). The proposed work falls within the scope of Minnesota Department of Natural Resources General Permit #2015-1192.

The main purpose of the project is to stabilize and restore an eroded shoreline along Lake Riley. The RPBCWD Engineer concurs that the photographs and videos of the site provided by the applicant demonstrate existing erosion and a need to restore the eroded shoreline which meets the requirements in Rule F, Subsection 3.1.

The Applicant provided a completed erosion intensity scoresheet which indicates that the total erosion intensity score for the site is 49. This indicates a medium erosion intensity classification, supporting stabilization of the shoreline using a combination of bioengineering and vegetated riprap (Rule F, Subsection 3.2a).

The design plans, which are certified by a registered landscape architect, call for bioengineering methods (coir logs) and native vegetation along the 32 feet of shoreline naturalization areas, vegetated riprap along 56 feet of shoreline and the installation of a 15-foot sand blanket. The applicant also proposes to install native vegetation in a 6-8-foot wide planting area upgradient from the vegetated riprap. The project conforms with criteria in subsection 3.3.a.i because the plans indicate the naturalized shoreline areas will be vegetated with native plantings. Because the buffer area created under permit 2016-003 is protected by a recorded declaration, any area disturbed within the recorded buffers on the site must also be restored with native vegetation.

Because the proposed slope shown on the design plan is 3:1 (horizontal to vertical) or flatter waterward of the ordinary high water level, the project conforms to Rule F, Subsection 3.3.a.ii. The drawings show the proposed stabilization will follow the configuration of the existing shoreline and will not encroach horizontally from existing conditions. The design plan indicates no vegetated riprap or filter material will be placed more than six (6) feet waterward of the ordinary high water level (OHW) of elevation 865.3. As a result, the proposed project conforms to Rule F, Subsection 3.3.a.iii.

The design of the shoreline erosion protection reflects the engineering properties of the underlying soils. The vegetated riprap to be used in the shoreline erosion protection will be natural stone between 12” and 24” in diameter to disperse wave energy and resist movement to meet the requirements of Rule F, Subsection 3.3.b.i. The construction plan and shoreline protection section indicate that the vegetated riprap will be placed to conform to the natural alignment of the shoreline to meet the criteria

in Rule F, Subsection 3.3.b.ii. Consistent with the requirements in Rule F, Subsection 3.3.b.iii, a filter fabric conforming to Minnesota Department of Transportation (MnDOT) specification 3733 and 6 inches of granular fill conforming to MnDOT specification 3601.B will be provided as a transitional layer between the existing shoreline and the vegetated riprap. The vegetated riprap section on sheet L102 shows the toe boulders will be at least 50 percent buried. In addition, the vegetated riprap will not cover emergent vegetation as required by Rule F, Subsection 3.3iv and the plans indicate vegetated riprap will extend to approximately the top of bank elevation which conforms to Rule F, Subsection 3.3.b.v. As required by Rule F, Subsection 3.3.b.vi, the project will stabilize an eroding shoreline from future erosion; it is not for cosmetic purposes.

Because the sand blanket section detail on sheet L102 combined with plan view on sheet L101 indicate the proposed sand blanket will be six inches thick, 15 feet wide, not extend waterward of the OHW, and calls for the installation of clean sand, the project conforms with Rule F, subsection3.3d.

The RPBCWD Engineer finds that the proposed project conforms to the applicable design criteria in Rule F.

Rule L: Permit Fee Deposit:

The RPBCWD permit fee schedule adopted in February 2020 requires permit applicants to deposit $200 For land-disturbing activities on record single-family residential property to be held in escrow and applied to cover the $10 permit-processing fee and reimburse RPBCWD for permit review and inspection-related costs and when a permit application is approved, the deposit must be replenished to the applicable deposit amount by the applicant before the permit will be issued to cover actual costs incurred to monitor compliance with permit conditions and the RPBCWD Rules. A permit fee deposit of $200 was received on June 30, 2021.

Rule M: Financial Assurance:

Rules C: Perimeter control: 300 L.F. x $2.50/L.F. = ... $750

Rock Entrance: 1.0 x $250 = ... $250

Restoration: 0.03 acres x $2,500/acre = ... $75

Rule F: Shoreline or Streambank Stabilization:103 L.F. x $100/L.F. = ... $10,300

Contingency (10%) $1,138

Total Financial Assurance..... $12,513

Applicable General Requirements:

1. The RPBCWD Administrator and Engineer shall be notified at least three days prior to commencement of work.

2. Construction shall be consistent with the plans and specifications approved by the District as a part of the permitting process. The date of the approved plans and specifications is listed on the permit.
3. Construction must be consistent with the plans, specifications, and models that were submitted by the applicant that were the basis of permit approval. The date(s) of the approved plans, specifications, and modeling are listed on the permit. The grant of the permit does not in any way relieve the permittee, its engineer, or other professional consultants of responsibility for the permitted work.
4. The grant of the permit does not relieve the permittee of any responsibility to obtain approval of any other regulatory body with authority, except as may be provided under Minnesota Department of Natural Resources General Permit 2015-1192, compliance with which, including payment of any applicable fee, is entirely the responsibility of the permittee.
5. The issuance of this permit does not convey any rights to either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
6. In all cases where the doing by the permittee of anything authorized by this permit involves the taking, using or damaging of any property, rights or interests of any other person or persons, or of any publicly owned lands or improvements or interests, the permittee, before proceeding therewith, must acquire all necessary property rights and interest.
7. RPBCWD's determination to issue this permit was made in reliance on the information provided by the applicant. Any substantive change in the work affecting the nature and extent of applicability of RPBCWD regulatory requirements or substantive changes in the methods or means of compliance with RPBCWD regulatory requirements must be the subject of an application for a permit modification to the RPBCWD.
8. If the conditions herein are met and the permit is issued by RPBCWD, the applicant, by accepting the permit, grants access to the site of the work at all reasonable times during and after construction to authorized representatives of the RPBCWD for inspection of the work.

Findings

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
2. The proposed project conforms to Rules B and F. The proposed project will conform to Rule C if the Rule Specific Permit Conditions listed above are met.
3. Under Minnesota Department of Natural Resources General Permit 2015-1192 (attached to this report), approval of work under RPBCWD rule(s) F constitutes approval under applicable DNR work in waters rules. Compliance with conditions on approval and in the general permit, including payment of applicable fees, if any, is necessary to benefit from general permit approval and are the responsibility of the applicant.

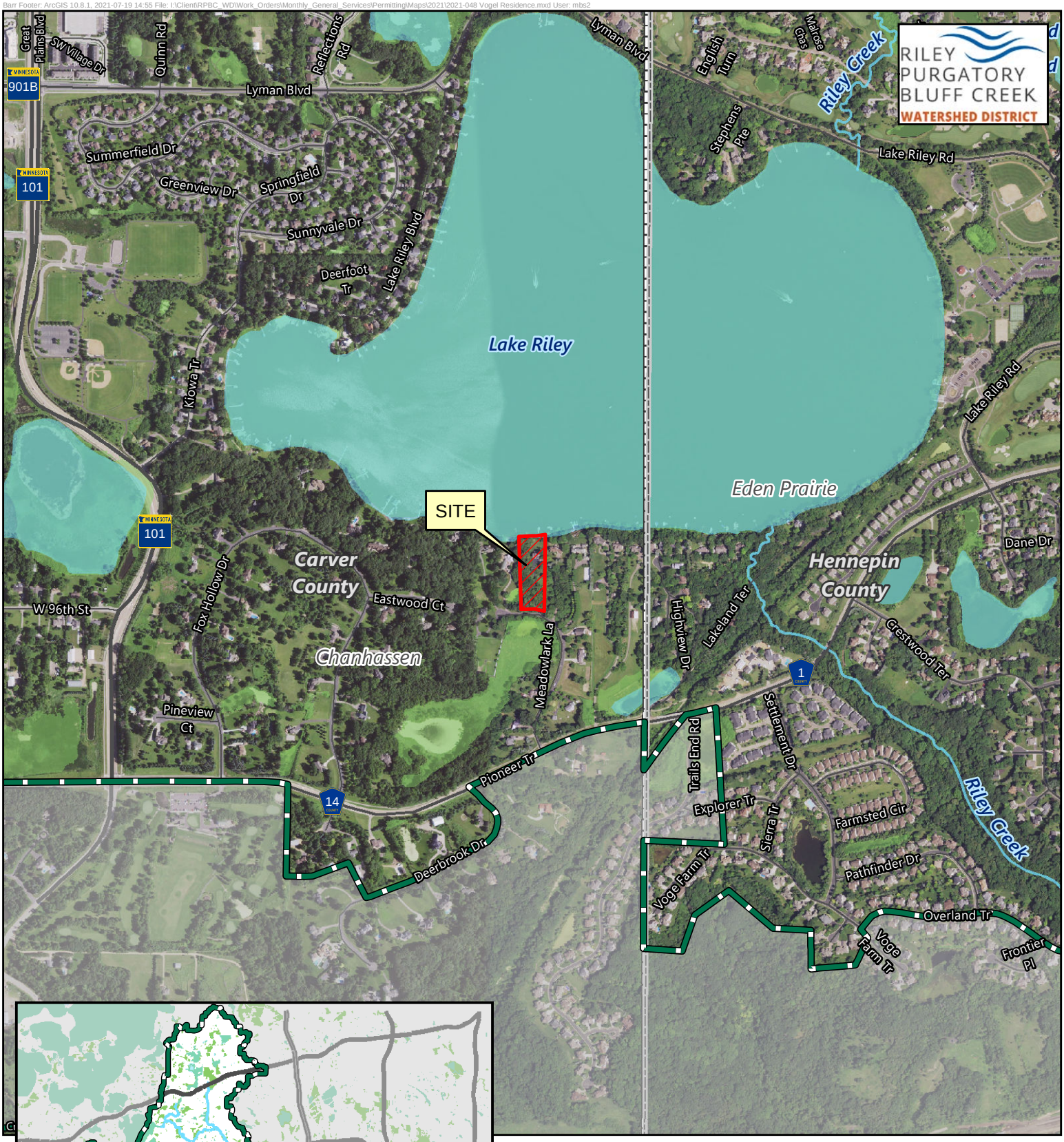
Recommendation:

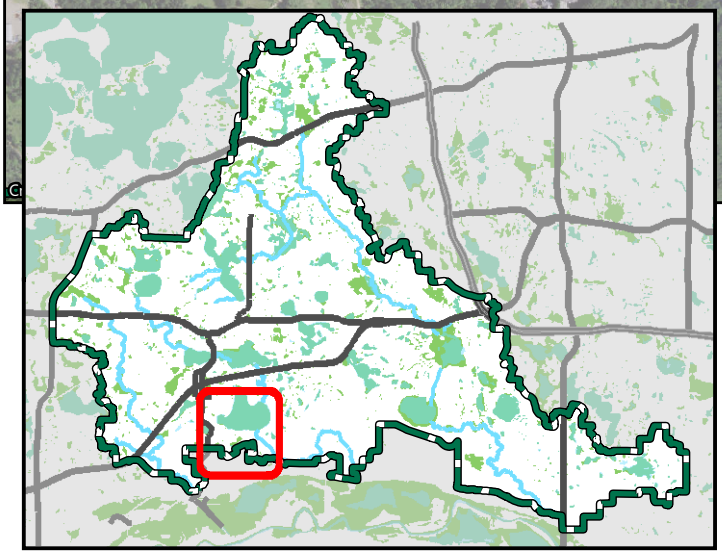
Approval of the permit contingent upon:

1. A perimeter erosion control practices (e.g., biologs, silt fence, etc.) must be installed along the downgradient edge of the access route between the driveway and lake shore.
2. The applicant must provide the name and contact information of the individual responsible for erosion prevention and sediment control at the site. RPBCWD must be notified if the responsible party changes during the permit term.
3. Receipt of a financial assurance in the amount of $12,513.

By accepting the permit, when issued, the applicant agrees to the following stipulations:

1. Continued compliance with General Requirements.
2. Because buffer area was recorded pursuant to permit 2016-003, all area disturbed within the recorded buffers must be restored with native vegetation. In addition, the buffer must be maintained in accordance with the recorded declaration.





N

Feet

0 1,000

Permit Location Map

VOGEL RESIDENCE

Permit 2021-048

Riley Purgatory Bluff Creek Watershed District

EXISTING CONDITIONS (04-20-2021)

FACING EAST FROM DOCK

EXISTING CONDITIONS (04-20-2021)

FACING WEST FROM DOCK

EXISTING CONDITIONS (04-20-2021) *SUPPORTING PHOTO FOR SAND BLANKET LOCATION

NEAR DOCK FACING NORTH

SHEET INDEX

SHEET NUMBER	SHEET NAME
G000	COVER SHEET
L100	RPBC SHORELINE PLAN
L101	EROSION CONTROL PLAN
L102	CONSTRUCTION ENTRANCE PLAN & DETAILS
L103	RPBC STATIONING PLAN

REVISIONS

NUMBER	DESCRIPTION
1	OHW GEOMETRY BASED ON RECORDED BENCHMARK
2	100 YR FLOODPLAIN GEOMETRY BASED ON RECORDED BENCHMARK
3	TYPICAL VEGETATED RIPRAP SECTION BASED ON NEW GEOMETRIES & RIPRAP GEOMETRY
4	SUPPORTING PHOTO FOR SAND BLANKET LOCATION ON COVER SHEET

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tel: 763-544-8002 fax: 763-445-2207
www.naturalenvironmentscorp.com

ISSUANCE

RPBC PERMIT

PROJECT NAME

Vogel Residence
9641 Meadowlark Lane
Chanhassen, MN 55317

SIGNATURE

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Landscape Architect under the laws of the state of Minnesota.

SIGNATURE:

PRINTED NAME: JONATHAN BLASIG

DATE: 10.28.2021

LICENSE NUMBER: 56704

REVISION DATE

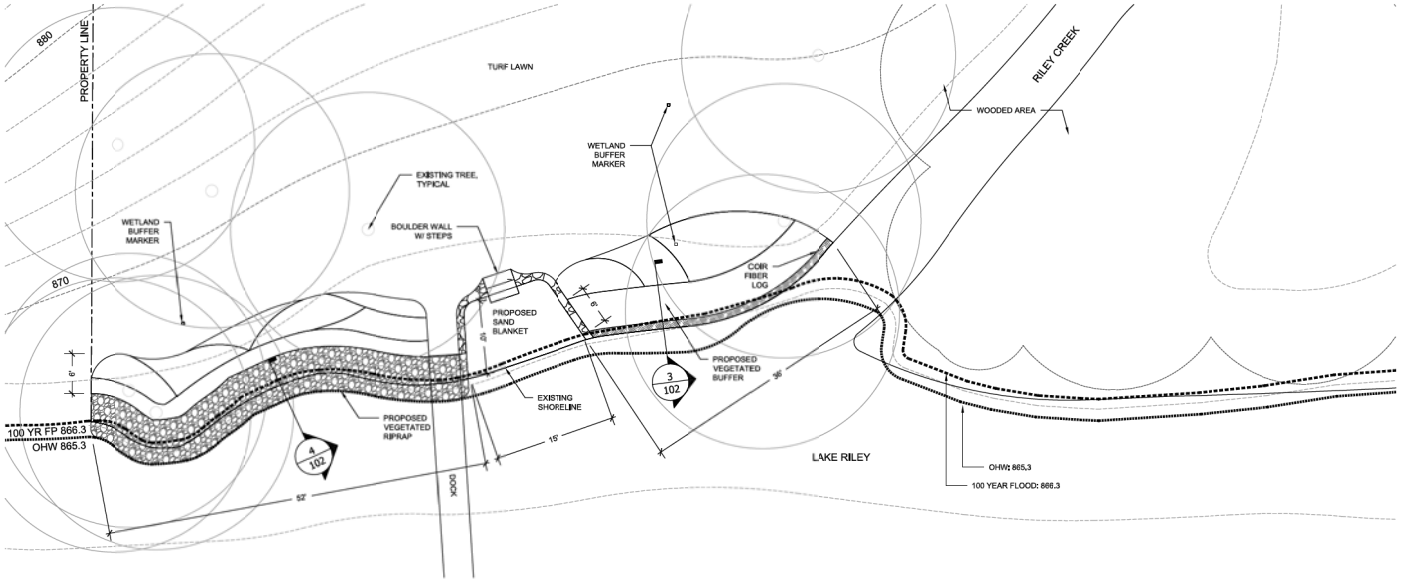
05-18-2021
07-22-2021
07-27-2021
10-28-2021
Date

SHEET NAME

COVER SHEET

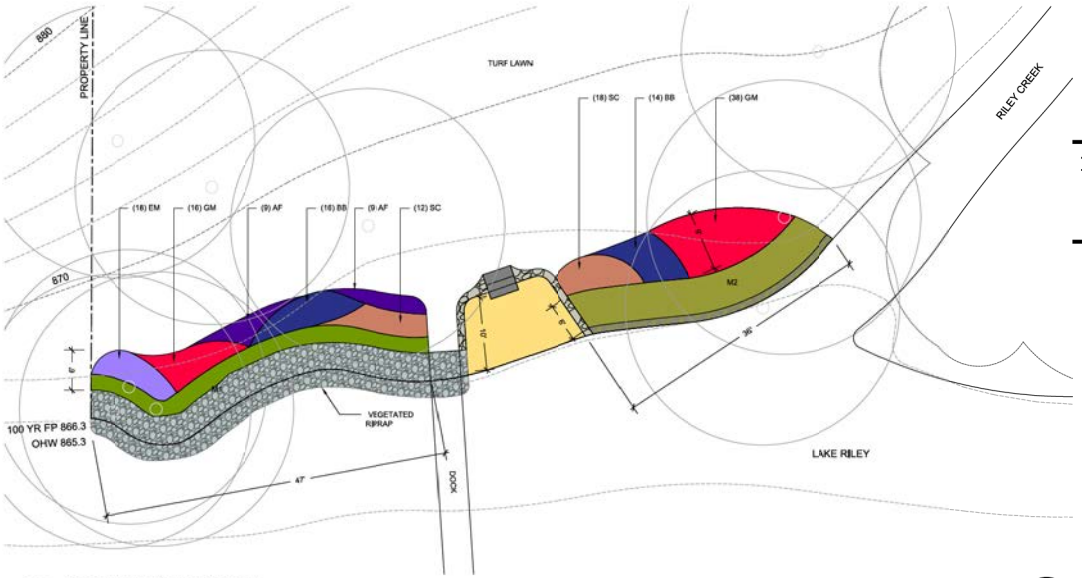
SHEET NUMBER

G000



1 SHORELINE PLAN

Scale: 1/8"=1'



2 SHORELINE PLANTING PLAN

Scale: 1/8"=1'

PLANTING NOTES

- INSTALL 3 YEAR COCONUT EROSION CONTROL BLANKET ON ALL DISTURBED PLANTING BEDS
- ALL VEGETATED BANK SLOPES TC BE LESS THAN 3:1 HORIZONTAL TO VERTICAL DISTANCE

PLANT SCHEDULE

CODE	COMMON NAME	LATIN NAME	SIZE	QNTY	NOTES	HEIGHT	SPACING
	1. SWATHS PLANTING						
GM	Wild Geranium	*Geranium maculatum*	2" plug	54	Mesic to Wet	H: 2-3 ft	1.5'
AF	Anise Hyssop	*Agastache foeniculum*	2" plug	18	Mesic to Wet	H: 2-3 ft	1.5'
BB	Cream Wild Indigo	*Baptisia bracteata*	4" cont.	30	Dry to Wet	H: 3-4 ft	1.75'
EM	Big Leaved Aster	*Eurybia macrophylla*	2" plug	18	Dry to Wet	H: 1.5-2 ft	1.5'
SC	Lindley's Aster	*Symphyotrichum ciliolatum*	2" plug	30	Mesic to Wet	H: 2-3 ft	1.75'
	2. BUFFER PLANTINGS						
					Random species of 3 to 15 plants		1.25', TYP.
M1	Tall Anemone	*Anemone virginiana*	2" plug	24	Mesic to Wet	H: 1-2 ft	1.5'
	Brown Fox Sedge	*Carex vulpinoidea*	2" plug	30	Mesic to Wet	H: 2-3 ft	
	Common Rush	*Juncus effusus*	2" plug	36	Mesic to Wet	H: 1-2 ft	
	Bebb's Oval Sedge	*Carex bebbii*	2" plug	48	Dry to Wet	H: 1 ft 1'	
	Cardinal Flower	*Lobelia cardinalis*	2" plug	30	Mesic to Wet	H: 2-3 ft	
	Monkey Flower	*Mimulus ringens*	2" plug	48	Mesic to Wet	H: 1-3 ft	1'
	Blue Flag Iris	*Iris versicolor*	4" cont.	28	Mesic to Wet	H: 1-3 ft	
M2 & Vegetated Riprap							
	Swamp Marigold	*Bidens aristosa*	2" plug	36	Emergent to Mesic	H: 1-2 ft	
	Green Bulrush	*Scirpus atrovirens*	2" plug	24	Emergent to Mesic	H: 2-4 ft	1.5'
	Pointed Broom Sedge	*Carex scoparia*	2" plug	36	Emergent to Mesic	H: 1-3 ft	
	Graceful Sedge	*Carex gracillima*	2" plug	36	Emergent to Mesic	H: 1-3 ft	
	Blue Joint Grass	*Calamagrostis canadensis*	2" plug	36	Emergent to Mesic	H: 1-4 ft	
	Giant Bur-reed	*Sparganium eurycarpum*	4" cont.	35	Emergent to Mesic	H: 1-4 ft	

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ISSUANCE

RPBC PERMIT

PROJECT NAME

Vogel Residence
9641 Meadowlark Lane
Chanhassen, MN 55317

SIGNATURE

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly licensed Landscape Architect under the laws of the state of Minnesota.

SIGNATURE:

PRINTED NAME: JONATHAN BLASEC

DATE: 10.28.2021

LICENSE NUMBER: 56704

REVISION DATE

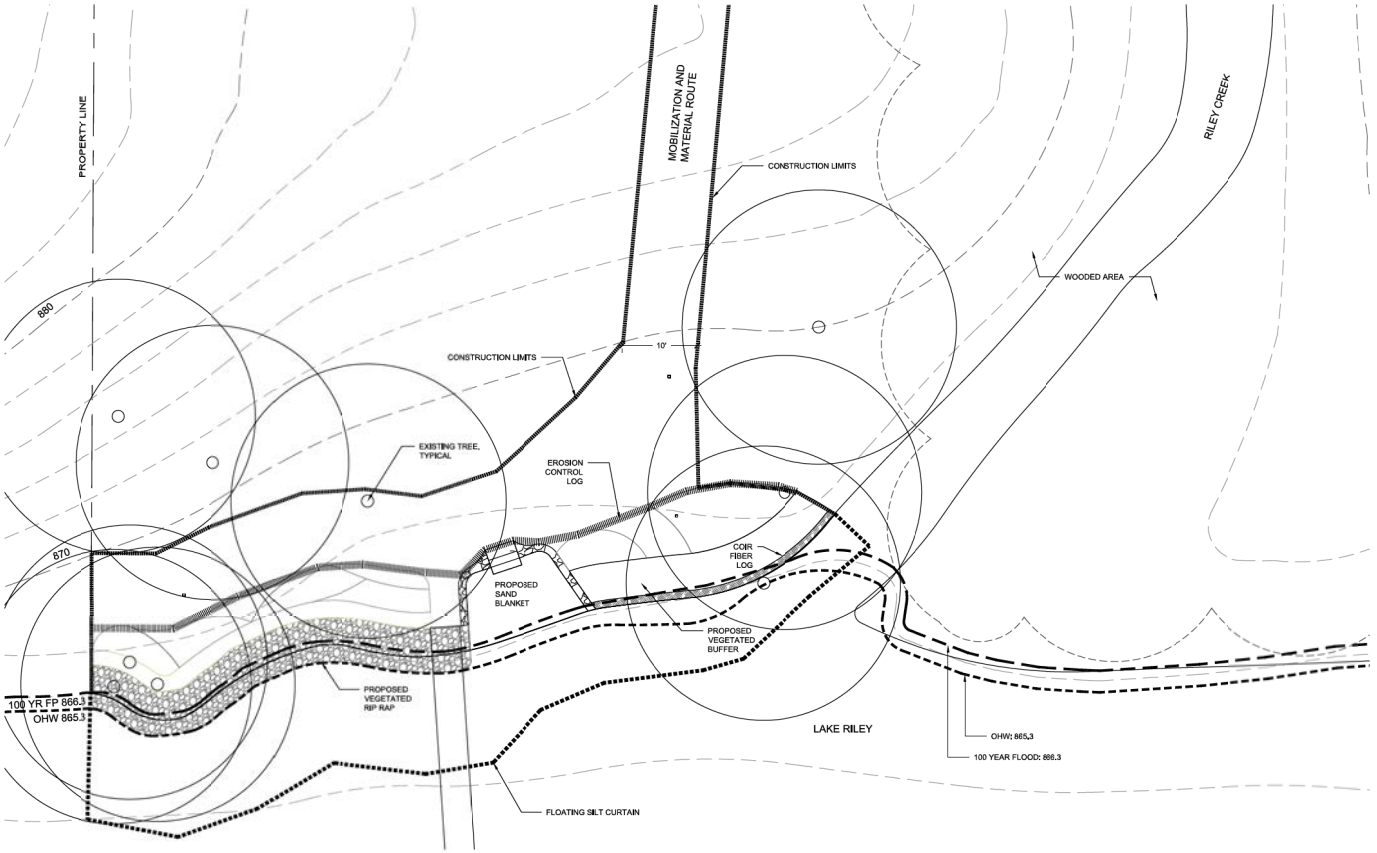
05-18-2021
07-22-2021
07-27-2021
10-28-2021
Date

SHEET NAME

RPBC SHORELINE PLAN

SHEET NUMBER

L100



1 RPBC EROSION CONTROL PLAN

Scale: 1/8"=1'

NOTES

- NATURAL TOPOGRAPHY AND SOIL CONDITIONS TO BE PROTECTED, INCLUDING RETENTION ONSITE OF NATIVE TOPSOIL TO THE GREATES" EXTENT POSSIBLE
- HYDRAULIC MULCHING AS SPECIFIED BY THE DISTRICT MUST BE USED ON SLOPES OF 3:1 (H:V) OR STEEPER TO PROVIDE ADEQUATE STABILIZATION
- SIX INCHES (+) OF TOP SOIL TO BE SPREAD AND INCORPORATED INTO THE UNDERLYING SOILS DURING FINAL SITE TREATMENT WHEREVER TOPSOIL HAS BEEN REMOVED
- CONSTRUCTION SITE WASTE MATERIALS SUCH AS DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, CHEMICALS, LITTER AND SANITARY WASTE TO BE PROPER.Y MANAGED
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMP'S TO BE MAINTAINED UNTIL COMPLETION OF CONSTRUCTION AND VEGETATION IS ESTABLISHED SUFFICIENTLY TO ENSURE STABILITY OF THE SITE, AS DETERMINED BY THE DISTRICT
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMPS MUST BE REMOVED UPON FINAL STABILIZATION
- SOIL SURFACES COMPACTED DURING CONSTRUCTION AND REMAINING PERVIOUS UPON COMPLETION OF CONSTRUCTION MUST BE DECOMPACTED TO ACHIEVE: A SOIL COMPACTION TESTING PRESSURE OF LESS THAN 1,400 KILOPASCALS OR 200 POUNDS PER SQUARE INCH IN THE UPPER 12 INCHES OF SOIL (OR) A BULK DENSITY OF LESS THAN 1.4 GRAMS PER CUBIC CENTIMETER OR 87 POUNDS PER CUBIC FOOT IN THE UPPER 12 INCHES OF SOIL. IN ADDITION, UTILITIES, TREE ROOTS AND OTHER EXISTING VEGETATION MUST BE PROTECTED UNTIL FINAL RE-VEGETATION OR OTHER STABILIZATION OF THE SITE
- ALL DISTURBED AREAS TC BE STABILIZED WITHIN 7 CALENDAR DAYS AFTER LAND-DISTURBING WORK HAS TEMPORARILY OR PERMANENTLY CEASED ON A PROPERTY THAT DRAINS "O AN IMPAIRED WATER, WITHIN 14 DAYS ELSEWHERE
- THE PERMITTEE MUST, AT A MINIMUM, INSPECT, MAINTAIN AND REPAIR ALL DISTURBED SURFACES AND ALL EROSION AND SEDIMENT CONTROL FACILITIES AND SOIL STAEILIZATION MEASURES EVERY DAY WORK IS PERFORMED ON THE SITE AND AT LEAST WEEKLY UNTIL LAND DISTURBING ACTIVITY HAS CEASED. THEREAFTER, THE PERMITTEE MUST PERFORM THESE RESPONSIBILITIES AT LEAST WEEKLY UNTIL VEGETATIVE COVER IS ESTABLISHED. THE PERM TTEE WILL MAINTAIN A LOG OF ACTIVITIES UNDER THIS SECTION FOR INSPECTION BY THE DISTRICT ON REQUEST
- ACTIVITIES MUST BE CONDUCTED SO AS TO MINIMIZE THE POTENTIAL TRANSFER OF AQUATIC INVASIVE SPECIES (E.G., ZEBRA MUSSELS, EURASIAN MILFOIL, ETC.) TO THE MAXIMUM EXTENT POSSIBLE
- ALL EXISTING FIELDSTONE RUBBLE TO REMAIN IN PLACE
- NATURAL ENVIRONMENTS CORP TO BE RESPONSIBLE FOR EROSION PREVENTION AND SEDIMENT CONTROL DURING CONSTRUCTION

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10-28-2021
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SHEET NAME

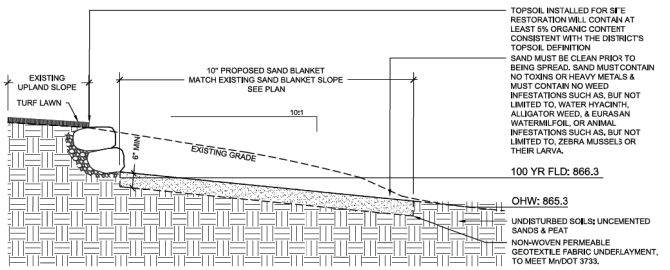
EROSION CONTROL PLAN

SHEET NUMBER

L101

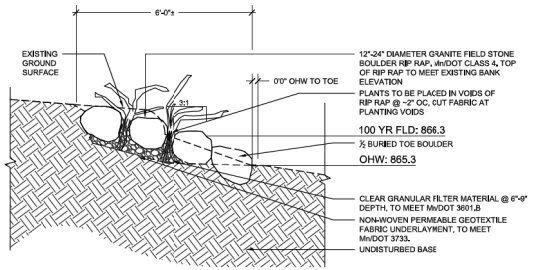
COMPENSATORY STORAGE

SECTION	ZONE	SHORE LENGTH (FT)	WIDTH (FT)	DEPTH (FT)	VOLUME
3	Bank	27	3	1 / 2 (Triangular Zone)	40.5 (CUT)
4	Riprap	55	2.66	1 / 2 (Triangular Zone)	73 / 2 (Half Buried) = 36.5 (FILL)
5	Sand Blanket	15	8	0.75 / 2 (Half Buried)	4.5 (CUT)
				NET TOTAL	+ 8.5 (CUT)



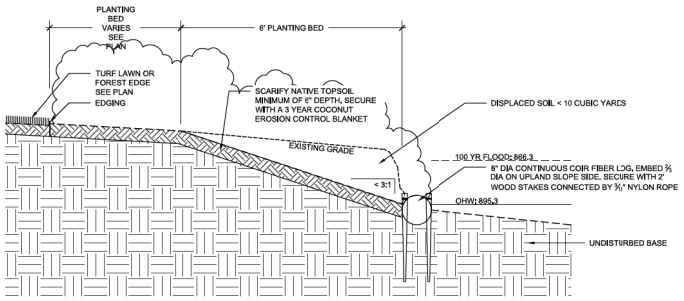
5 SAND BLANKET SECTION

Scale: 1/2"=1'



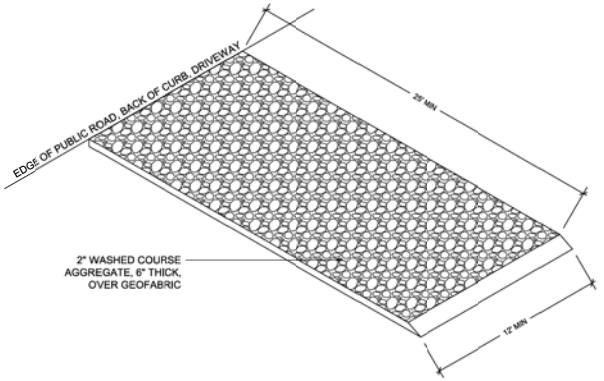
4 TYPICAL VEGETATED RIPRAP SECTION

Scale: 1/2"=1'



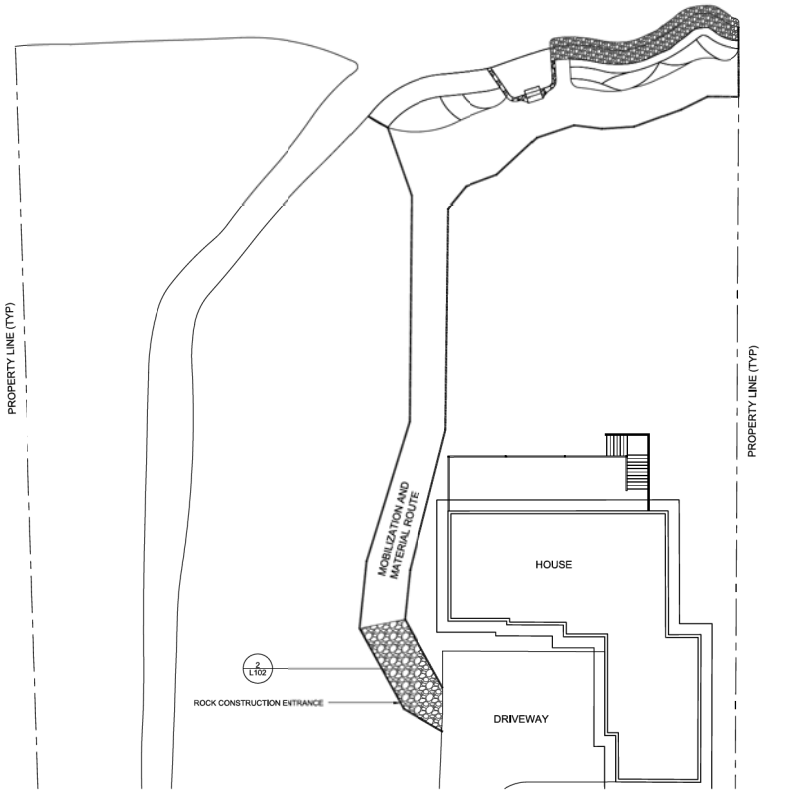
3 TYPICAL VEGETATED BANK SECTION

Scale: 3/4"=1'



2 TEMPORARY ROCK CONSTRUCTION ENTRANCE DETAIL

Scale: 1/4"=1'



1 CONSTRUCTION ENTRANCE PLAN

Scale: 1/16"=1'

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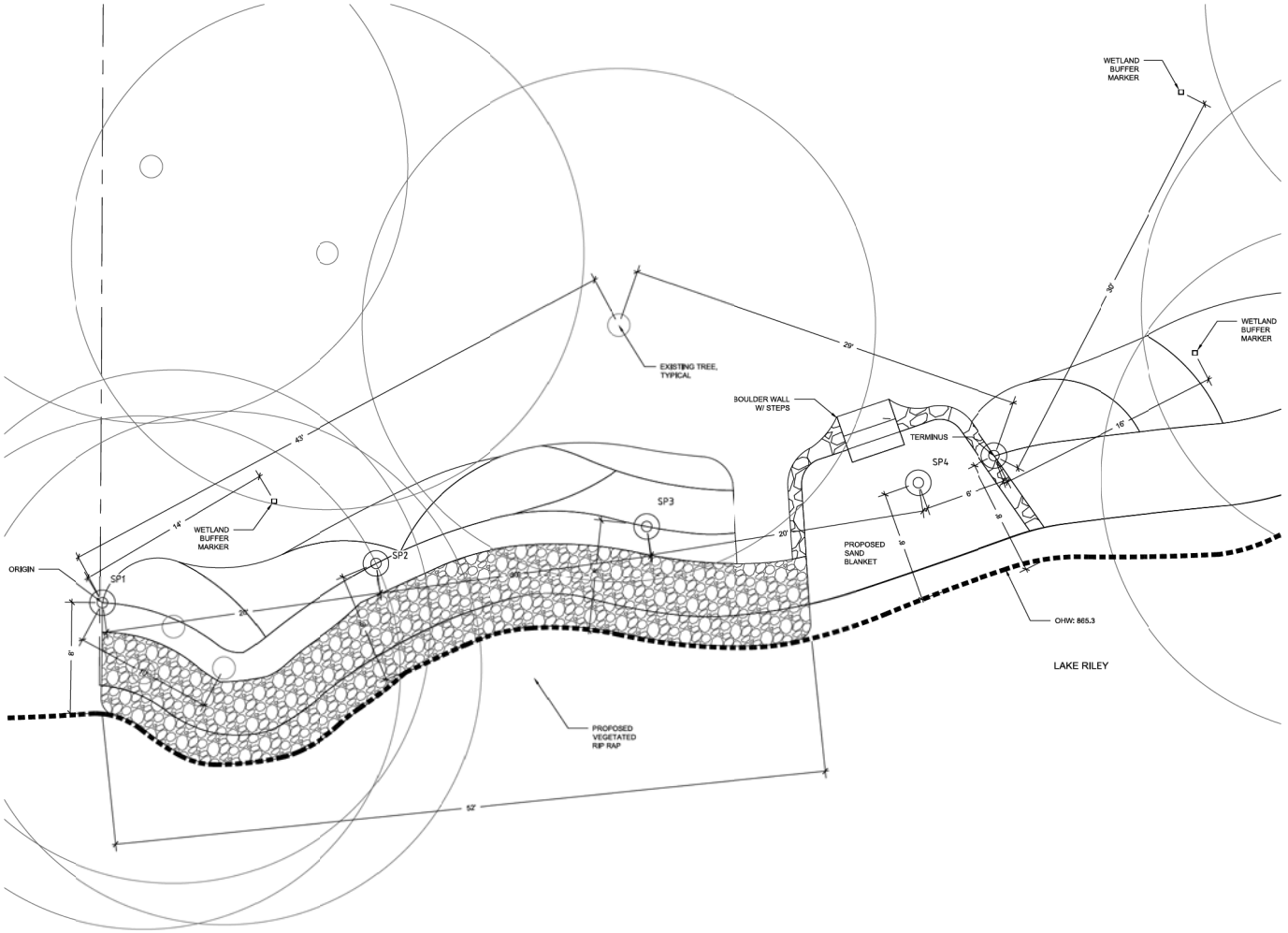
SHEET NAME

CONSTRUCTION ENTRANCE PLAN AND DETAILS

SHEET NUMBER

L102



1 RPBC STATIONING PLAN

Scale: 1/8"=1'

NOTES

-BASE LINE STAKING TO BE INSTALLED PRIOR TO CONSTRUCTION AND MAINTAINED THROUGH PROJECT COMPLETION
-FLOATING SILT CURTAIN TO BE INSTALLED PRIOR TO CONSTRUCTION AND MAINTAINED THROUGH PROJECT COMPLETION

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SHEET NAME

RPBC STATIONING PLAN

SHEET NUMBER

L103

BOARD OF WATER AND SOIL RESOURCES

Minnesota Wetland Conservation Act
Notice of Decision

Local Government Unit: City of Chanhassen	**County:** Carver County
Applicant Name: Dave Vogel	**Applicant Representative:** Wayne Jacobson
Project Name: 9641 Meadowlark Lane wetland delineation	**LGU Project No. (if any):** 2021-07
Date Complete Application Received by LGU: 09/17/2021	
Date of LGU Decision: 10/18/2021	
Date this Notice was Sent: 10/18/2021	

WCA Decision Type - check all that apply

☒ Wetland Boundary/Type ☐ Sequencing ☐ Replacement Plan ☐ Bank Plan (not credit purchase)
☐ No-Loss (8420.0415) ☐ Exemption (8420.0420)
Part: ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G ☐ H Subpart: ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9

Replacement Plan Impacts (replacement plan decisions only)

Total WCA Wetland Impact Area:
Wetland Replacement Type: ☐ Project Specific Credits: ☐ Bank Credits:
Bank Account Number(s):

Technical Evaluation Panel Findings and Recommendations (attach if any)

☒ Approve ☐ Approve w/Conditions ☐ Deny ☐ No TEP Recommendation

LGU Decision

☐ Approved with Conditions (specify below)[1] ☒ Approved[1] ☐ Denied
List Conditions:

Decision-Maker for this Application: ☒ Staff ☐ Governing Board/Council ☐ Other:

Decision is valid for: ☒ 5 years (default) ☐ Other (specify):

[1] *Wetland Replacement Plan approval is not valid until BWSR confirms the withdrawal of any required wetland bank credits. For project-specific replacement a financial assurance per MN Rule 8420.0522, Subp. 9 and evidence that all required forms have been recorded on the title of the property on which the replacement wetland is located must be provided to the LGU for the approval to be valid.*

LGU Findings – Attach document(s) and/or insert narrative providing the basis for the LGU decision[1].

☒ Attachment(s) (specify):
☒ Summary: The TEP met on-site to discuss the wetland delineation on September 29, 2021. The TEP all came to the conclusion that the shoreline wetland was not a wetland and should be excluded from the wetland delineation figure. An updated delineation figure was provided on 10/8/2021.

[1] *Findings must consider any TEP recommendations.*

Attached Project Documents

☒ Site Location Map ☐ Project Plan(s)/Descriptions/Reports (specify):

Appeals of LGU Decisions

If you wish to appeal this decision, you must provide a written request within 30 calendar days of the date you received the notice. All appeals must be submitted to the Board of Water and Soil Resources Executive Director along with a check payable to BWSR for $500 *unless* the LGU has adopted a local appeal process as identified below. The check must be sent by mail and the written request to appeal can be submitted by mail or e-mail. The appeal should include a copy of this notice, name and contact information of appellant(s) and their representatives (if applicable), a statement clarifying the intent to appeal and supporting information as to why the decision is in error. Send to:

Appeals & Regulatory Compliance Coordinator
Minnesota Board of Water & Soils Resources
520 Lafayette Road North
St. Paul, MN 55155
travis.germundson@state.mn.us

Does the LGU have a local appeal process applicable to this decision?

☒ Yes[1] ☐ No

[1]*If yes, all appeals must first be considered via the local appeals process.*

Local Appeals Submittal Requirements (LGU must describe how to appeal, submittal requirements, fees, etc. as applicable)

Send $50.00 to 7700 Market Boulevard, PO Box 147, Chanhassen, MN 55317

Notice Distribution (include name)

Required on all notices:

☒ SWCD TEP Member: Ben Datres/Tom Genelin	☒ BWSR TEP Member: Ben Carlson
☐ LGU TEP Member (if different than LGU contact):	
☒ DNR Representative: Melissa Collins	
☒ Watershed District or Watershed Mgmt. Org.: Terry Jeffery, Riley Purgatory Bluff Creek Watershed	
☒ Applicant: David Vogel	☒ Agent/Consultant: Wayne Jacobson

Optional or As Applicable:

☒ Corps of Engineers:
☐ BWSR Wetland Mitigation Coordinator (required for bank plan applications only):
☒ Members of the Public (notice only): Eric Trelstad (Replacement Plan Applications only) ☐ Other:

Signature: Matt Unmacht	**Date:** 10/18/2021

This notice and accompanying application materials may be sent electronically or by mail. The LGU may opt to send a summary of the application to members of the public upon request per 8420.0255, Subp. 3.

DEPARTMENT OF NATURAL RESOURCES

MNDNR PERMITTING AND REPORTING SYSTEM

General Permit Number

2015-1192

Amended

Public Waters Work General Permit

Expiration Date: 05/01/2025

Pursuant to Minnesota Statutes, Chapter 103G, and on the basis of statements and information contained in the permit application, letters, maps, and plans submitted by the applicant and other supporting data, all of which are made part hereof by reference, **PERMISSION IS HEREBY GRANTED** to the applicant to perform actions as authorized below. This permit supersedes the original permit and all previous amendments.

Project Name:	**County:**	**Watershed:**	**Resource:**
Riley-Purgatory-Bluff Creek Watershed District General Permit	Hennepin and Carver	Lower Minnesota River - Shakopee	All Public Waters within Riley-Purgatory-Bluff Creek Watershed

Purpose of Permit:	**Authorized Action:**
Sediment Removal, Sand Blanket w/o Excavation, Sand Blanket w/ Excavation, Riprap (Natural Rock), Retaining Wall, Erosion Control/Stabilization Fill & Grading, Culvert Construction/Modification/Replacement, Bridge Construction/Modification/Replacement, Bioengineering	Place natural rock riprap; shape banks/shorelines for placement of riprap or bioengineering; install beach sand blankets; construct retaining walls, bridges and culverts; remove structures; remove sediment; all in accordance with the Conditions of this permit. For actions addressed by this general permit, no separate GP Authorization is needed from the DNR.
Permittee:	**Authorized Agent:**
Riparian Property Owners within Riley-Purgatory-Bluff Creek Watershed District	N/A

Property Description (*land owned or leased or where work will be conducted*):

Issued Date:	**Effective Date:**	**Expiration Date:**
06/15/2020	05/01/2020	05/01/2025

Authorized Issuer:	**Title:**	**Email Address:**	**Phone Number:**
Tom Hovey	Water Regulations Unit Supervisor	tom.hovey@state.mn.us	651-259-5654

This permit is granted **subject to** the following **CONDITIONS**:

APPLICABLE FEDERAL, STATE, OR LOCAL REGULATIONS: The permittee is not released from any rules, regulations, requirements, or standards of any applicable federal, state, or local agencies; including, but not limited to, the U.S. Army Corps of Engineers, Board of Water and Soil Resources, MN Pollution Control Agency, watershed districts, water management organizations, county, city and township zoning.

NOT ASSIGNABLE: This permit is not assignable by the permittee except with the written consent of the Commissioner of Natural Resources.

NO CHANGES: The permittee shall make no changes, without written permission or amendment previously obtained from the Commissioner of Natural Resources, in the dimensions, capacity or location of any items of work authorized hereunder.

SITE ACCESS: The permittee shall grant access to the site at all reasonable times during and after construction to authorized representatives of the Commissioner of Natural Resources for inspection of the work authorized hereunder.

TERMINATION: This permit may be terminated by the Commissioner of Natural Resources at any time deemed

CONDITIONS continued on next page...

GENERAL PERMIT CONDITIONS (*Continued from previous page*)

necessary for the conservation of water resources of the state, or in the interest of public health and welfare, or for violation of any of the conditions or applicable laws, unless otherwise provided in the permit.

COMPLETION DATE: Construction work authorized under this permit shall be completed on or before the date specified above. The permittee may request an extension of the time to complete the project by submitting a written request, stating the reason thereof, to the Commissioner of Natural Resources.

WRITTEN CONSENT: In all cases where the permittee by performing the work authorized by this permit shall involve the taking, using, or damaging of any property rights or interests of any other person or persons, or of any publicly owned lands or improvements thereon or interests therein, the permittee, before proceeding, shall obtain the written consent of all persons, agencies, or authorities concerned, and shall acquire all property, rights, and interests needed for the work.

PERMISSIVE ONLY / NO LIABILITY: This permit is permissive only. No liability shall be imposed by the State of Minnesota or any of its officers, agents or employees, officially or personally, on account of the granting hereof or on account of any damage to any person or property resulting from any act or omission of the permittee or any of its agents, employees, or contractors. This permit shall not be construed as estopping or limiting any legal claims or right of action of any person other than the state against the permittee, its agents, employees, or contractors, for any damage or injury resulting from any such act or omission, or as estopping or limiting any legal claim or right of action of the state against the permittee, its agents, employees, or contractors for violation of or failure to comply with the permit or applicable conditions.

EXTENSION OF PUBLIC WATERS: Any extension of the surface of public waters from work authorized by this permit shall become public waters and left open and unobstructed for use by the public.

GP AUTHORIZATION - APPLY USING MPARS: The permittee shall apply for prior authorization for all projects to be constructed under this General Permit using the MNDNR Permitting and Reporting System (MPARS) at www.mndnr.gov/mpars/signin . Users will need to create an account the first time they access the system. Once created, click on the link for ‘Apply for a New Permit/Authorization’ under the Actions box and complete the application questions.

WETLAND CONSERVATION ACT: Where the work authorized by this permit involves the draining or filling of wetlands not subject to DNR regulations, the permittee shall not initiate any work under this permit until the permittee has obtained official approval from the responsible local government unit as required by the Minnesota Wetland Conservation Act.

INVASIVE SPECIES - EQUIPMENT DECONTAMINATION: All equipment intended for use at a project site must be free of prohibited invasive species and aquatic plants prior to being transported into or within the state and placed into state waters. All equipment used in designated infested waters, shall be inspected by the Permittee or their authorized agent and adequately decontaminated prior to being transported from the worksite. The DNR is available to train inspectors and/or assist in these inspections. For more information refer to the "Best Practices for Preventing the Spread of Aquatic Invasive Species" at http://files.dnr.state.mn.us/publications/ewr/invasives/ais/best_practices_for_prevention_ais.pdf. Contact your regional Invasive Species Specialist for assistance at www.mndnr.gov/invasives/contacts.html. A list of designated infested waters is available at www.mndnr.gov/invasives/ais/infested.html. A list of prohibited invasive species is available at www.mndnr.gov/invasives/laws.html#prohibited.

CONSTRUCTION DEWATERING - GENERAL: All construction dewatering in excess of 10,000 gallons per day or one million gallons per year must be authorized by a separate water appropriation permit. All worksite discharge water must be treated for sediment reduction prior to return to the surface water. Water from designated infested waters shall not be diverted to other waters, transported on a public road, or transported or appropriated off property riparian to infested waters without a DNR permit specifically for this use. All equipment in contact with infested waters must be decontaminated upon leaving the site.

EROSION AND SEDIMENT CONTROL: In all cases, methods that have been determined to be the most effective and practical means of preventing or reducing sediment from leaving the worksite shall be installed in areas that slope to the water and on worksite areas that have the potential for direct discharge due to pumping or draining of areas from within the worksite (e.g., coffer dams, temporary ponds, stormwater inlets). These methods, such as mulches, erosion control blankets, temporary coverings, silt fence, silt curtains or barriers, vegetation preservation, redundant methods, isolation of flow, or other engineering practices, shall be installed concurrently or within 24 hours after the start of the project, and will be maintained for the duration of the project in order to prevent sediment from leaving the worksite. DNR requirements may be waived in writing by the authorized DNR staff based on site conditions, expected weather conditions, or project completion timelines.

CONDITIONS continued on next page...

GENERAL PERMIT CONDITIONS (*Continued from previous page*)

EXCAVATED MATERIALS - FLOODPLAIN CONCERN: Excavated material shall not be permanently placed within community designated floodplain areas or shoreland areas, unless all necessary local permits and approvals have been obtained.

AQUATIC PLANT MANAGEMENT: For projects where vegetation is placed waterward of the ordinary high water level, a separate Aquatic Plant Management (APM) permit is needed from the DNR Regional APM Specialist. See contact list at: http://www.dnr.state.mn.us/apm/index.html. A permit shall be obtained (no fee required) for each site in order to monitor plant source, species, and planting location. Vegetation must be appropriate for the site and free of invasive species. This condition does not apply when only woody vegetation is used, such as willow and dogwood.

APPLICABLE PROJECTS: A project not meeting applicable conditions of this permit or a project the DNR identifies as having the potential for significant resource impacts, is not authorized herein. Rather, such projects will require an individual DNR permit application.

ENVIRONMENTAL REVIEW: If the project proposal is part of a project that requires mandatory environmental review pursuant to MN Environmental Quality Board rules, then the permit is not valid until environmental review is completed.

RETAINING WALLS: Retaining walls are generally discouraged because their impact on the near-shore aquatic environment can be severe and they restrict wildlife movement, however, they may be permitted if the following conditions are met: a. Existing or expected erosion problems shall preclude the use of riprap shore protection with a finished slope of 2:1 (horizontal to vertical) or more gentle, due to steep banks, nearby structures or other extenuating circumstances; or there shall be a demonstrated need for direct shoreland docking. b. Design shall be consistent with existing uses in the area. Examples are: riverfront commercial-industrial areas having existing structures of this nature, dense residential areas where similar retaining walls are common, or where barges are utilized to carry equipment and supplies. c. Adequate engineering studies shall be performed on foundation conditions, tiebacks, internal drainage, construction materials, and protection against flanking. d. The facility shall not be an aesthetic intrusion upon the area and is consistent with all applicable local, state, and federal management plans and programs for the water body. e. Encroachment below the ordinary high water elevation shall be limited to the absolute minimum necessary for construction.

ICE RIDGE REMOVAL: Ice ridge removal projects must meet the DNR "no permit required" conditions for ice ridge removal specified in Minn. Rules part 6115.0215, Subpart 4. If not, a DNR Individual permit is required as District rules do not address this category of project.

HYDROLOGIC / HYDRAULIC DATA REPORTING :: Unless waived by the DNR Area Hydrologist, hydrologic modeling to show the impacts of a bridge or culvert constructed in a Public Water to the 100-year flood elevation is required . Additional modeling may also be required for temporary fill or temporary structures required during demolition or construction. Calculations showing calculated velocities through the structures at 2-year peak flows may also be required.

FISHERY PROTECTION - EXCLUSION DATES: No activity affecting the bed of the protected water may be conducted between March 15 and April 15 on watercourses, or between April 1 and June 30 on all other waterbodies, to minimize impacts on fish spawning and migration. If work during this time is essential, it shall be done only upon written approval of the Area Fisheries Manager. See contact list at: http://files.dnr.state.mn.us/fisheries/management/dnr_fisheries_managers.pdf Should work begin elsewhere in the project area within these dates, all exposed soils that are within 200 feet of Public Waters and drain to those waters must complete erosion control measures within 24 hours of its disturbance to prevent sediment from entering Public Waters.

REPORTING: The Riley-Purgatory-Bluff Creek Watershed District shall submit annually or as requested a summary report of the projects authorized under this General Permit to the Area Hydrologist.

CONSTRUCTION AIDS: No construction is allowed of temporary channel diversions or placement of fill for temporary work pads, bypass roads, access roads, or coffer dams to aid in the construction of any authorized structure unless approved in writing by the Area Hydrologist prior to beginning work .

FISH PASSAGE: Bridges, culverts and other crossings shall provide for fish movement unless the structure is intended to impede rough fish movement or the stream has negligible fisheries value as determined by the DNR Area Hydrologist in consultation with the Area Fisheries Manager. The accepted practices for achieving these conditions include: Where possible a single culvert or bridge shall span the natural bankfull width adequate to allow for debris and sediment transport rates to closely resemble those of upstream and downstream conditions. A single culvert shall be recessed in order to pass bedload and sediment load. Additional culvert inverts should be set at a higher elevation. All culverts should match the alignment and slope of the natural stream channel, and extend through the toe of the road side slope. "Where

CONDITIONS continued on next page...

GENERAL PERMIT CONDITIONS (*Continued from previous page*)

possible" means that other conditions may exist and could take precedence, such as unsuitable substrate, natural slope and background velocities, bedrock, flood control, 100 year flood elevations, wetland/lake level control elevations, local ditch elevations, and other adjacent features. Rock Rapids or other structures may be used to retrofit crossings to mimic natural conditions.

PHOTOS AND AS-BUILTS: Upon completion of the authorized work, the permittee may be required to submit a copy of established benchmarks, representative photographs, and may be required to provide as-built surveys of Public Watercourse crossing changes.

EXCAVATION OF PUBLIC WATERS: Excavation of Public Waters is authorized by this permit only when the proposed excavation is consistent with Minnesota Rules 6115.0200 and 6115.0201.

REMOVAL OF STRUCTURES: Removal of structures from public waters is authorized by this permit when the proposed removal is consistent with Minnesota Rules 6115.0211 subp. 8.

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cc: John Gleason, EWR District Manager

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

18681 Lake Drive East
Chanhassen, MN 55317
952-607-6512
www.rpbcwd.org

Riley-Purgatory-Bluff Creek Watershed District Permit Application Review

Permit No: 2021-076

Received complete: November 8, 2021

Considered at Board of Manager's Meeting: December 8, 2021

Applicant: City of Minnetonka; Sarah Schweiger

Consultant: Alliant Engineering, Eric Nelson

Project: Purgatory Creek Dredging – the applicant proposes to to remove accumulated sediment from Purgatory Creek at the Scenic Height creek crossing in Minnetonka.

Location: Scenic Heights Road between Creek Ridge Trail and Creekside Lane in Minnetonka

Reviewer: Scott Sobiech, PE Barr Engineering

Proposed Board Action

Manager _____ moved and Manager _____ seconded adoption of the following resolutions based on the permit report that follows and the presentation of the matter at the December 8, 2021 meeting of the managers:

Resolved that the application for Permit 2021-076 is approved, subject to the conditions and stipulations set forth in the Recommendations section of the attached report;

Resolved that on determination by the RPBCWD administrator that the conditions of approval of the variances and permit have been affirmatively resolved, the RPBCWD president or administrator is authorized and directed to sign and deliver to the applicant, Permit 2021-076 on behalf of RPBCWD.

Upon vote, the resolutions were adopted, _____ [VOTE TALLY].

Applicable Rule Conformance Summary

Rule	Issue	Conforms to RPBCWD Rules?	Comments
B	**Floodplain Management and Drainage Alterations**	Yes	
C	**Erosion Control Plan**	See Comment	See rule-specific permit condition C1 related to providing name and contact information for the individual responsible for erosion control.
D	**Wetland and Creek Buffers**	See Comment	See rule-specific permit condition D1 and D2 related to buffer sign location and maintenance agreement.
E	**Dredging and Sediment Removal**	Yes	
L	**Permit Fees**	NA	Governmental Agency
M	**Financial Assurances**	NA	Governmental Agency

Project Description

The proposed project involves removing remove accumulated sediment from one of two parallel box culvert structures carrying Purgatory Creek under Scenic Heights Drive. In the late 1990s, two parallel 8' wide by 5' high concrete box culverts were installed at this crossing including lining the channel upstream and downstream of the culverts with Class IV riprap. Extensive sedimentation and delta formation has occurred on the north box culvert (see below photos). Accumulated sediment will also be removed down to the existing riprap lined channel section upstream and downstream of the culvert. The work will occur on city owned property upstream and downstream of the culverts, within right of way, and within a drainage and utility easement on the northeast side of the crossing.

Sediment delta on downstream end of north culvert

Sediment measurement in north culvert

The project site information is summarized in the following table.

	Project Total
Existing Site Impervious (acres)	0
Existing Impervious Area Disturbed (acres)	0
New (Increase) in Site Impervious Area (acres)	0
Proposed Impervious Area (acres)	0
Excavation (cubic yards)	205
Total Disturbed Area (acres)	0.1
Total Site Area (acres)	0.1

The following materials were reviewed in support of the permit request:

1. Permit application received September 28, 2021 (Incomplete notice was sent on October 15, 2021; materials submitted to complete application on November 8, 2021)
2. Project Narrative dated September 28, 2021
3. Site plan received September 28, 2021 (revised November 8, 2021 to include buffers, drainage details drawings, and as-builts drawings of existing culverts).

Rule B: Floodplain Management and Drainage Alterations

Because the proposed project involves the land-disturbing activities below the 100-year flood elevation of Purgatory Creek and altering surface flow below the 100-year flood elevation, the project activities must conform to the RPBCWD's Floodplain Management and Drainage Alterations rule (Rule B).

Rule B, Subsections 3.1 and 3.4 are not relevant because no buildings will be constructed or reconstructed as part of the project, and the no impervious surface will be created or re-created within 50 feet of a watercourse. Because the cross section information provided on the drawing shows only excavation, the proposed activity will not result in any fill being placed below the 100-year flood elevation. Further, the proposed activity will not modify the culverts or streambank. As such, the RPBCWD engineer agrees that the proposed activity will not result in a rise in the 100-year elevation, the proposed project will not result in loss of flood storage below the 100-year flood elevation and the project conforms to Rule B, Subsection 3.2. Because the applicant has demonstrated and the engineer concurs that the project will preserve the existing 100-year flood level, the project will not alter surface flows, complying with subsection 3.3. The applicant include the erosion control measure on the site drawing to comply with subsection 3.5. The information on the plan sheet includes a note indicating that activities must be conducted to minimize the potential transfer of aquatic invasive species conforming to Rule B, Subsection 3.6.

The RPBCWD Engineer concurs that the proposed project conforms to the floodplain management and drainage alteration requirements of Rule B.

Rule C: Erosion and Sediment Control

Because the project will excavate 205 cubic yards of earth, the project must conform to the requirements in the RPBCWD Erosion Prevention and Sediment Control rule (Rule C, Subsection 2.1).

The plans, including erosion control measures, prepared by Alliant Engineering include installation of stabilized construction entrance, sediment control log, floating silt curtain, placement of a minimum of 6 inches of topsoil, decompaction of pervious areas compacted during construction prior to topsoil placement, and retention of native topsoil onsite.

To conform to the RPBCWD Rule C requirements the following revisions are needed:

C1. The Applicant must provide the name and contact information of the general contractor responsible for the site. RPBCWD must be notified if the responsible party changes during the permit term.

Rule D: Wetland and Creek Buffers

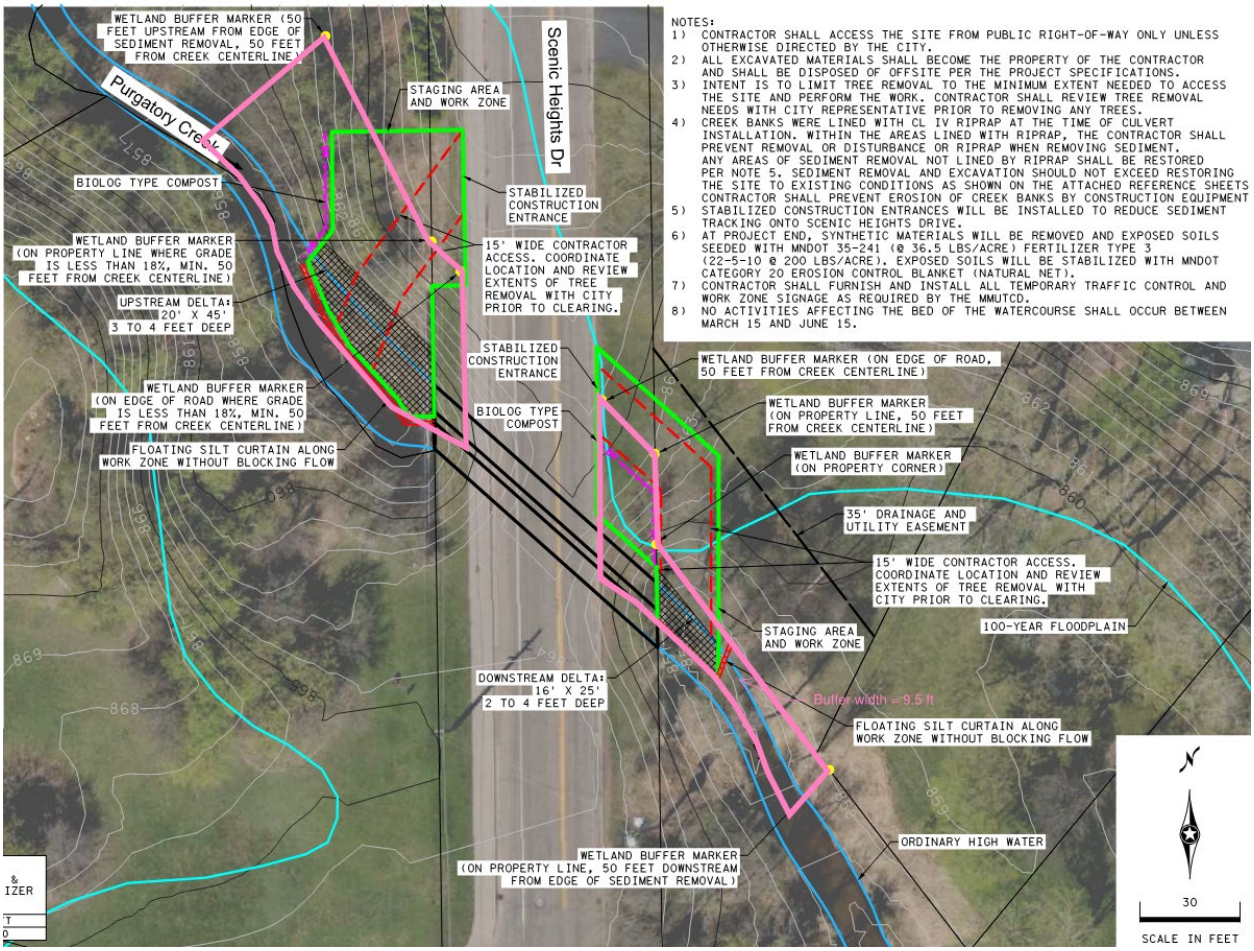
Because the proposed work triggers RPBCWD Rules B and E and will disturb Purgatory Creek, a public watercourse, Rule D, Subsections 2.1a and 3.1 require buffer on the streambank area disturbed and 50 feet upstream and downstream.

Because the project involves work in Purgatory Creek, a public watercourse, the project must provide for buffers averaging 50 feet wide with minimum width of 30 feet from the centerline of the pubic watercourse. Because the northwestern site access off Scenic Heights Road will traverse a steep slope adjacent to the creek, the required buffer will encompasses steep slopes and the project must provide for buffers to the top of the slope averaging 18% (Rule D, Subsection 3.2b.v and 3.2c). At the same time, subsection 3.2f requires buffer only on property owned by the applicant. Because the applicant's proposed buffer for the watercourse extends 50 feet upstream and downstream, and to the top of the slope greater 18%, 50 feet from the centerline of the creek, or to the property limits, the project conforms to the Rule D, Subsection 3.2. requirements (see pink outline in figure below) except for the northwest buffer marker which intersects a steep slope and must be located at the top of the steep slope. The buffer widths are summarized in the following table and demonstrate that the minimum and average buffers widths conform to Rule D, subsection 3.2.

Feature	Required Minimum Width[1] (ft)	Required Average Width[1] (ft)	Provided Minimum Width (ft)	Provided Average Width (ft)
Purgatory Creek	30	50	9.5[2]	32[2]

[1] Average and minimum required buffer width under Rule D, Subsection 3.2b.

[2] Buffer is limited to the property under public right of way or owned by the city.



The plans require revegetating disturbed areas within the proposed buffer with native vegetation, thus conforming with Rule D, Subsection 3.3. A note is included on the plan sheet indicating the project will be constructed so as to minimize the potential transfer of aquatic invasive species (e.g., zebra mussels, Eurasian watermilfoil, etc.) to the maximum extent possible conforming to Rule D, Subsection 3.6.

To conform to the RPBCWD Rule D the following revisions are needed:

D1. The northwest buffer marker location intersects a steep slope and must be relocated to the top of the steep slope.

D2. The proposed Buffer areas and maintenance requirements must be documented in an agreement approved by RPBCWD. As a public entity, the city may comply with this requirement by entering into a maintenance agreement with the RPBCWD.

Rule E, Dredging and Sediment Removal

Because the project involves removal of material from Purgatory Creek, a public watercourse, the project requires approval under RPBCWD Rule E, Dredging and Sediment Removal. The purpose of the land-disturbing activities is to maintain the existing creek channel by removing accumulated sediment for the channel (Rule E, subsection 2.1a).

Because proposed sediment removal is not intended for navigation purposes, Rule E subsection 3.1a does not impose requirement on this project. Because the proposed removal of material from the bed of Purgatory Creek will restore the channel cross section and the ecological function of a portion of the creek to conditions that existed following the installation of the box culverts (Rule E, subsections 3.1b, 3.1c, 3.1d, and 3.1g). Because the proposed work involves removal of sediment down to the existing riprap install with the prior culvert installation, is not a marina or residential lakeshore, and the work under this permit does not alter the existing side slope, thus Rule E, subsection 3.1f impose requirements on this project.

A note on the plans requires the contractor to dispose of dredged materials off-site, thus conforming with Rule E, subsection 3.2). A note on the site map directs the contractor that no work affecting the bed or banks of a protected water shall occur between April 1 and June 15 (Rule E, Subsection 3.5). Banks will be immediately stabilized after completion of permitted work and revegetated as soon as growing conditions allow (Rule E, Subsection 3.3) and the plans call for the installation of floating silt curtain (Rule E, Subsection 3.4). A note is included on the plan sheet indicating the project will be constructed so as to minimize the potential transfer of aquatic invasive species (e.g., zebra mussels, Eurasian watermilfoil, etc.) to the maximum extent possible (Rule E, Subsection 3.6).

The proposed project conforms to RPBCWD Rule E.

Applicable General Requirements:

1. The RPBCWD Administrator and Engineer shall be notified at least three days prior to commencement of work.
2. Construction must be consistent with the plans, specifications, and models that were submitted by the applicant that were the basis of permit approval. The date(s) of the approved plans, specifications, and modeling are listed above and on the permit. The granting of the permit does not in any way relieve the permittee, its engineer, or other professional consultants of responsibility for the permitted work.
3. The grant of the permit does not relieve the permittee of any responsibility to obtain approval of any other regulatory body with authority.

4. The issuance of this permit does not convey any rights to either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
5. In all cases where the doing by the permittee of anything authorized by this permit involves the taking, using or damaging of any property, rights or interests of any other person or persons, or of any publicly owned lands or improvements or interests, the permittee, before proceeding therewith, must acquire all necessary property rights and interest.
6. RPBCWD's determination to issue this permit was made in reliance on the information provided by the applicant. Any substantive change in the work affecting the nature and extent of applicability of RPBCWD regulatory requirements or substantive changes in the methods or means of compliance with RPBCWD regulatory requirements must be the subject of an application for a permit modification to the RPBCWD.
7. If the conditions herein are met and the permit is issued by RPBCWD, the applicant, by accepting the permit, grants access to the site of the work at all reasonable times during and after construction to authorized representatives of the RPBCWD for inspection of the work.

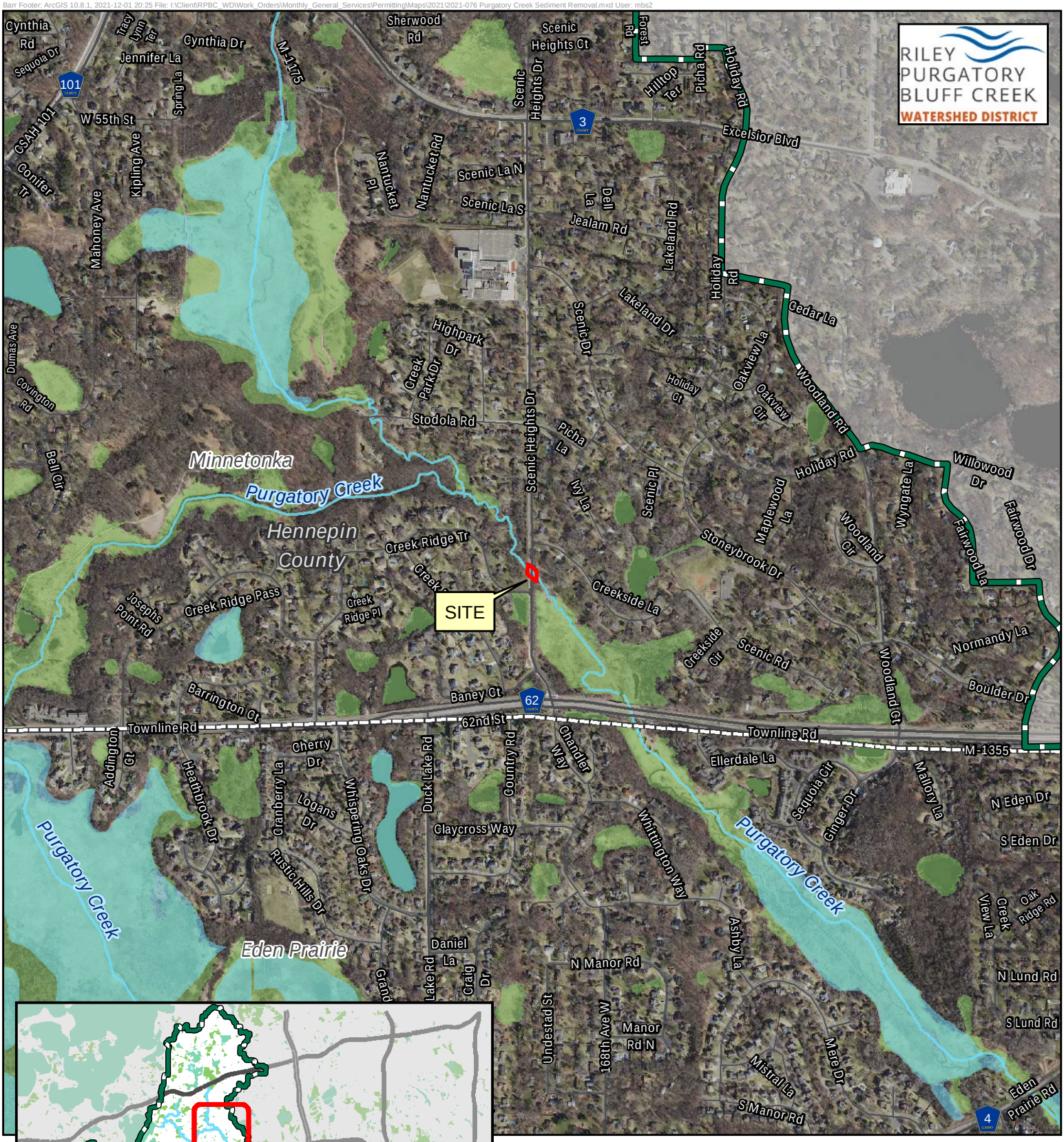
Findings

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
2. The proposed project will conform to Rule C and D if the Rule Specific Permit Conditions listed above are met.
3. The proposed project conforms to Rules B and E.
4. Under Minnesota Department of Natural Resources General Permit 2015-1192 (attached to this report), approval of work under RPBCWD rule E constitutes approval under applicable DNR work in waters rules. Compliance with conditions on approval and payment of applicable fees, if any, are necessary to benefit from general permit approval and the responsibility of the applicants.

Recommendation:

The engineer recommends approval of the permit, contingent upon:

1. Continued compliance with General Requirements
2. Permit applicant must provide the name and contact information of the general contractor responsible for the site. RPBCWD must be notified if the responsible party changes during the permit term.
3. Receipt of updated drawing showing the northwest buffer marker location relocated to the top of the steep slope.
4. Permit applicant must provide a draft maintenance agreement for the creek buffers, including exhibit clearly identifying buffer areas. Once approved by RPBCWD, the City must enter an agreement with RPBCWD to maintain the buffer in accordance with the plan.



Feet

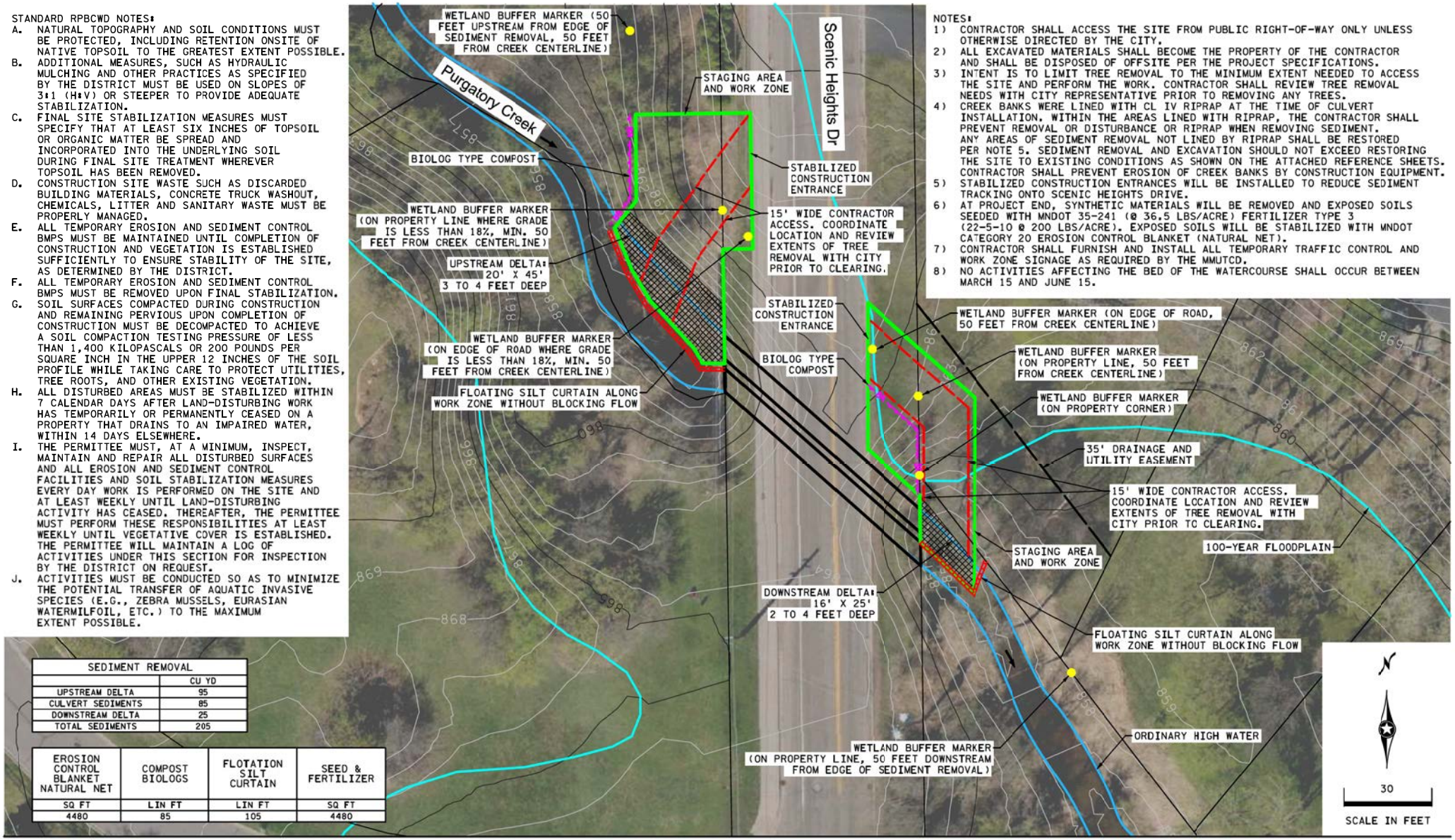
0 1,000

Permit Location Map

PURGATORY CREEK
SEDIMENT REMOVAL
Permit 2021-076
Riley Purgatory Bluff Creek
Watershed District

STANDARD RPBCWD NOTES:

A. NATURAL TOPOGRAPHY AND SOIL CONDITIONS MUST BE PROTECTED, INCLUDING RETENTION ONSITE OF NATIVE TOPSOIL TO THE GREATEST EXTENT POSSIBLE.
B. ADDITIONAL MEASURES, SUCH AS HYDRAULIC MULCHING AND OTHER PRACTICES AS SPECIFIED BY THE DISTRICT MUST BE USED ON SLOPES OF 3:1 (H:V) OR STEEPER TO PROVIDE ADEQUATE STABILIZATION.
C. FINAL SITE STABILIZATION MEASURES MUST SPECIFY THAT AT LEAST SIX INCHES OF TOPSOIL OR ORGANIC MATTER BE SPREAD AND INCORPORATED INTO THE UNDERLYING SOIL DURING FINAL SITE TREATMENT WHEREVER TOPSOIL HAS BEEN REMOVED.
D. CONSTRUCTION SITE WASTE SUCH AS DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, CHEMICALS, LITTER AND SANITARY WASTE MUST BE PROPERLY MANAGED.
E. ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMPS MUST BE MAINTAINED UNTIL COMPLETION OF CONSTRUCTION AND VEGETATION IS ESTABLISHED SUFFICIENTLY TO ENSURE STABILITY OF THE SITE, AS DETERMINED BY THE DISTRICT.
F. ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMPS MUST BE REMOVED UPON FINAL STABILIZATION.
G. SOIL SURFACES COMPACTED DURING CONSTRUCTION AND REMAINING PERVIOUS UPON COMPLETION OF CONSTRUCTION MUST BE DECOMPACTED TO ACHIEVE A SOIL COMPACTION TESTING PRESSURE OF LESS THAN 1,400 KILOPASCALS OR 200 POUNDS PER SQUARE INCH IN THE UPPER 12 INCHES OF THE SOIL PROFILE WHILE TAKING CARE TO PROTECT UTILITIES, TREE ROOTS, AND OTHER EXISTING VEGETATION.
H. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN 7 CALENDAR DAYS AFTER LAND-DISTURBING WORK HAS TEMPORARILY OR PERMANENTLY CEASED ON A PROPERTY THAT DRAINS TO AN IMPAIRED WATER, WITHIN 14 DAYS ELSEWHERE.
I. THE PERMITTEE MUST, AT A MINIMUM, INSPECT, MAINTAIN AND REPAIR ALL DISTURBED SURFACES AND ALL EROSION AND SEDIMENT CONTROL FACILITIES AND SOIL STABILIZATION MEASURES EVERY DAY WORK IS PERFORMED ON THE SITE AND AT LEAST WEEKLY UNTIL LAND-DISTURBING ACTIVITY HAS CEASED. THEREAFTER, THE PERMITTEE MUST PERFORM THESE RESPONSIBILITIES AT LEAST WEEKLY UNTIL VEGETATIVE COVER IS ESTABLISHED. THE PERMITTEE WILL MAINTAIN A LOG OF ACTIVITIES UNDER THIS SECTION FOR INSPECTION BY THE DISTRICT ON REQUEST.
J. ACTIVITIES MUST BE CONDUCTED SO AS TO MINIMIZE THE POTENTIAL TRANSFER OF AQUATIC INVASIVE SPECIES (E.G., ZEBRA MUSSELS, EURASIAN WATERMILFOIL, ETC.) TO THE MAXIMUM EXTENT POSSIBLE.



NOTES:

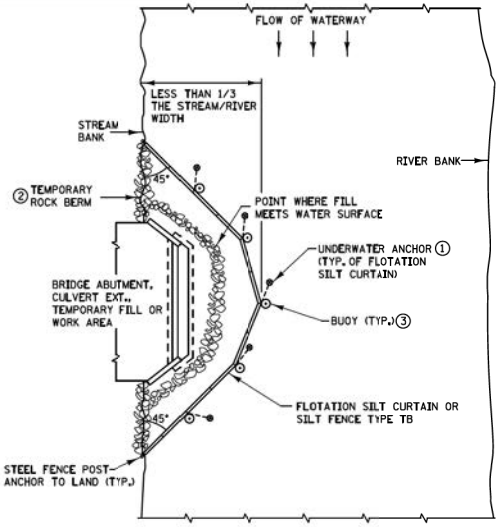
1) CONTRACTOR SHALL ACCESS THE SITE FROM PUBLIC RIGHT-OF-WAY ONLY UNLESS OTHERWISE DIRECTED BY THE CITY.
2) ALL EXCAVATED MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFFSITE PER THE PROJECT SPECIFICATIONS.
3) INTENT IS TO LIMIT TREE REMOVAL TO THE MINIMUM EXTENT NEEDED TO ACCESS THE SITE AND PERFORM THE WORK. CONTRACTOR SHALL REVIEW TREE REMOVAL NEEDS WITH CITY REPRESENTATIVE PRIOR TO REMOVING ANY TREES.
4) CREEK BANKS WERE LINED WITH CL IV RIPRAP AT THE TIME OF CULVERT INSTALLATION. WITHIN THE AREAS LINED WITH RIPRAP, THE CONTRACTOR SHALL PREVENT REMOVAL OR DISTURBANCE OR RIPRAP WHEN REMOVING SEDIMENT. ANY AREAS OF SEDIMENT REMOVAL NOT LINED BY RIPRAP SHALL BE RESTORED PER NOTE 5. SEDIMENT REMOVAL AND EXCAVATION SHOULD NOT EXCEED RESTORING THE SITE TO EXISTING CONDITIONS AS SHOWN ON THE ATTACHED REFERENCE SHEETS. CONTRACTOR SHALL PREVENT EROSION OF CREEK BANKS BY CONSTRUCTION EQUIPMENT.
5) STABILIZED CONSTRUCTION ENTRANCES WILL BE INSTALLED TO REDUCE SEDIMENT TRACKING ONTO SCENIC HEIGHTS DRIVE.
6) AT PROJECT END, SYNTHETIC MATERIALS WILL BE REMOVED AND EXPOSED SOILS SEEDED WITH MNDOT 35-241 (@ 36.5 LBS/ACRE) FERTILIZER TYPE 3 (22-5-10 @ 200 LBS/ACRE). EXPOSED SOILS WILL BE STABILIZED WITH MNDOT CATEGORY 20 EROSION CONTROL BLANKET (NATURAL NET).
7) CONTRACTOR SHALL FURNISH AND INSTALL ALL TEMPORARY TRAFFIC CONTROL AND WORK ZONE SIGNAGE AS REQUIRED BY THE MMUTCD.
8) NO ACTIVITIES AFFECTING THE BED OF THE WATERCOURSE SHALL OCCUR BETWEEN MARCH 15 AND JUNE 15.

SEDIMENT REMOVAL	
	CU YD
UPSTREAM DELTA	95
CULVERT SEDIMENTS	85
DOWNSTREAM DELTA	25
TOTAL SEDIMENTS	205

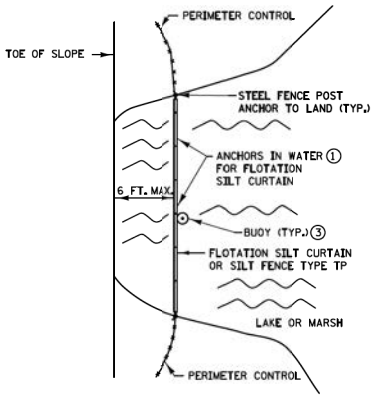
EROSION CONTROL BLANKET NATURAL NET	COMPOST BIOLOGS	FLOTATION SILT CURTAIN	SEED & FERTILIZER
SQ FT	LIN FT	LIN FT	SQ FT
4480	85	105	4480

ALLIANT

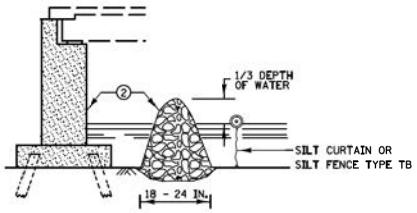
Purgatory Creek Sediment Removal Project
Site Map



PLAN VIEW FOR STREAM ⑤



PLAN VIEW FOR LAKE OR MARSH ⑤

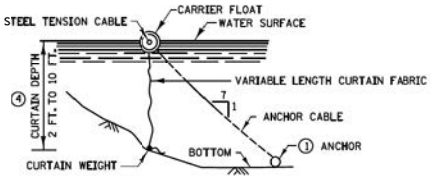


TEMPORARY ROCK BERM
FOR SEDIMENT CONTROL

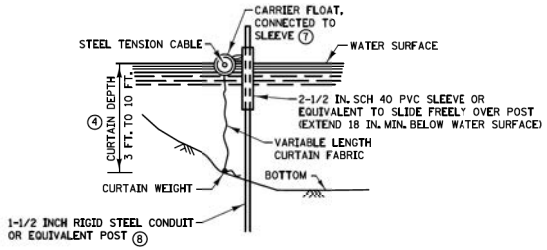
INSTALLATION GUIDELINES
SILT FENCE TYPE TB
MINIMUM WATER DEPTH: 1 FT.
MAXIMUM WATER DEPTH: 3 FT.
MAXIMUM WATER VELOCITY: 5 FT./SEC.

INSTALLATION GUIDELINES ④
FLOTATION SILT CURTAIN
TYPE: STILL WATER
MINIMUM WATER DEPTH: 3 FT.
MAXIMUM WATER DEPTH: 10 FT.
MAXIMUM WATER VELOCITY: 2 FT./SEC.
MAXIMUM WAVE HEIGHT: 1 FT

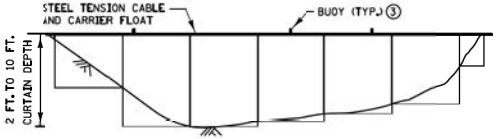
INSTALLATION GUIDELINES ④
FLOTATION SILT CURTAIN
TYPE: MOVING WATER
MINIMUM WATER DEPTH: 3 FT.
MAXIMUM WATER DEPTH: 10 FT.
MAXIMUM WATER VELOCITY: 5 FT./SEC.
MAXIMUM WAVE HEIGHT: 2 FT.



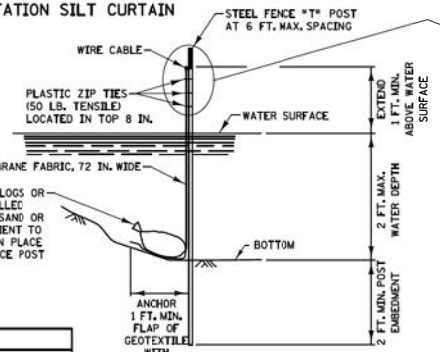
FLOTATION SILT CURTAIN



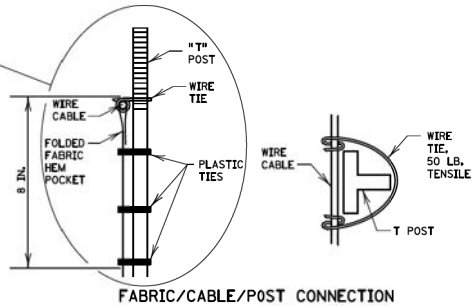
ALTERNATE FLOTATION SILT CURTAIN



FRONT VIEW FOR FLOTATION SILT CURTAIN



SILT FENCE TYPE TB ⑥



FABRIC/CABLE/POST CONNECTION

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.

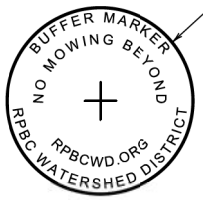
⑧ PROVIDE SUFFICIENT NUMBER OF POST ANCHORS TO MAINTAIN SILT CURTAIN POSITION.

REVISION:
APPROVED: 2-28-2017
CHIEF ENVIRONMENTAL OFFICER

MINNESOTA DEPARTMENT OF TRANSPORTATION
STATE DESIGN ENGINEER

STANDARD PLAN 5-297.405 | 1 OF 8
APPROVED: 2-28-2017
REVISED:

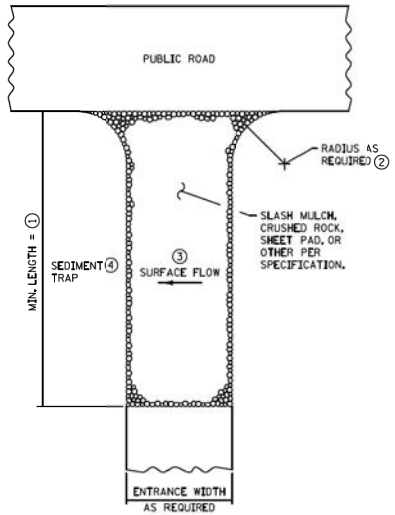
TEMPORARY SEDIMENT CONTROL
SILT CURTAIN OR SILT FENCE TYPE TB



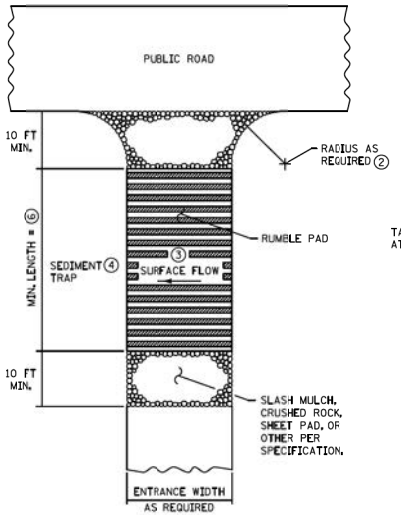
3-1/4" DOMED ALUMINUM BUFFER MARKER OR APPROVED EQUAL

NOTES:
1. BUFFER MARKER TO BE IDENTIFIED WITH A DURABLE MARKER OR CAP BEARING INFORMATION SHOWN ON DETAIL WITH A MINIMUM DIAMETER OF 3 INCHES.
2. BUFFER MARKER TO BE COMPOSED OF A DURABLE MATERIAL.
3. BUFFER MARKER TO DETECTABLE WITH CONVENTIONAL INSTRUMENTS FOR FINDING FERROUS OR MAGNETIC OBJECTS.
4. BUFFER MARKER TO BE INSTALLED FLUSH TO THE GROUND SURFACE.
5. BUFFER MARKER TO BE MOUNTED TO A BURIED PIECE OF REBAR WITH A MINIMUM LENGTH OF 18 INCHES AND A MINIMUM DIAMETER OF 1/2 INCH (#4 REBAR IS ACCEPTABLE).

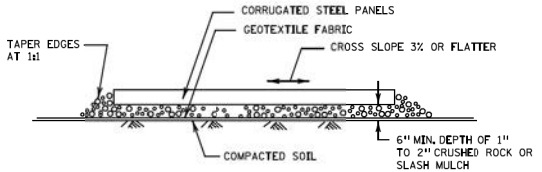
WETLAND BUFFER MARKER



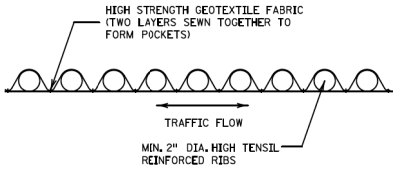
SLASH MULCH, CRUSHED ROCK, OR SHEET PAD CONSTRUCTION EXIT ⑤⑦



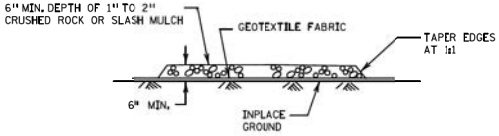
RUMBLE PAD CONSTRUCTION EXIT ⑤⑦



RUMBLE PAD



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
CHIEF ENVIRONMENTAL OFFICER

MINNESOTA DEPARTMENT OF TRANSPORTATION

STANDARD PLAN 5-297.405 | 5 OF 8

APPROVED: 2-28-2017
REVISED:

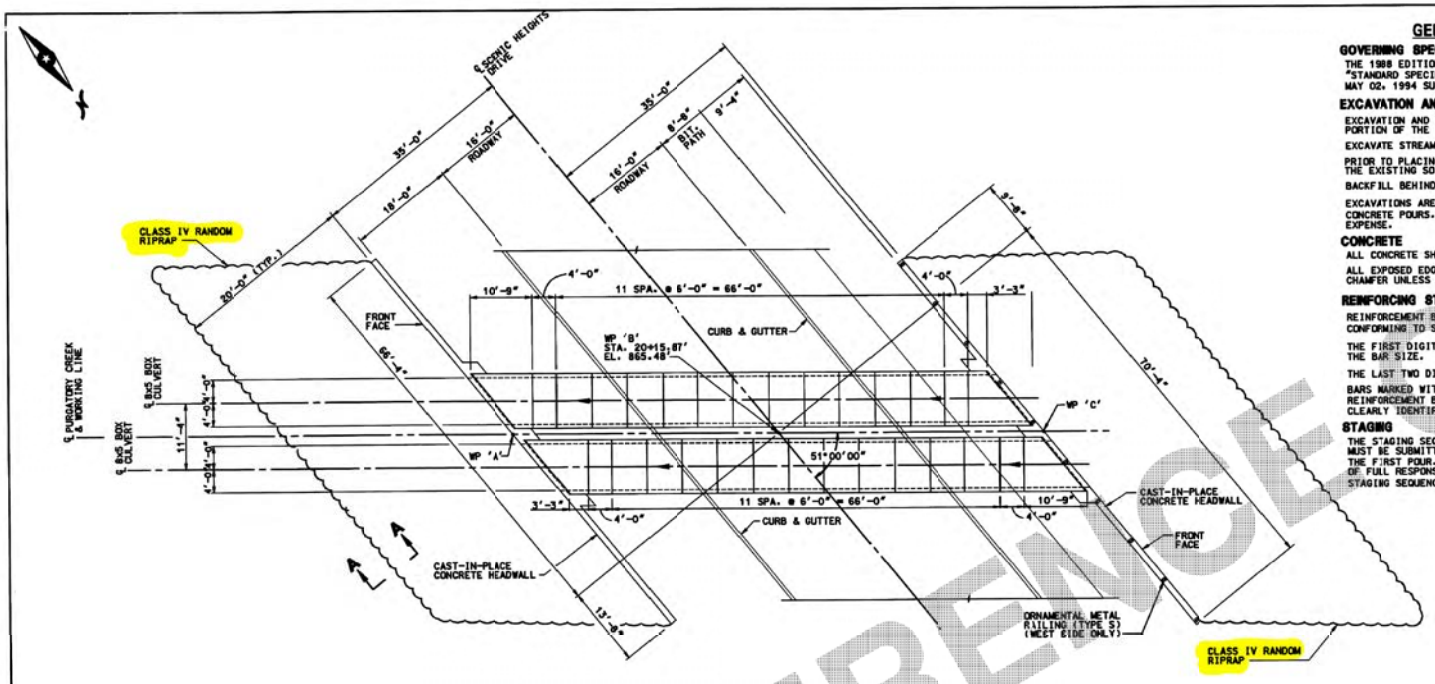
STATE DESIGN ENGINEER

TEMPORARY SEDIMENT CONTROL

STABILIZED CONSTRUCTION EXIT

ALLIANT

Purgatory Creek Sediment Removal Project
Drainage Details



GENERAL PLAN 8'X5' PRECAST BOX CULVERT NO. 27J08 AND HEADWALL

GENERAL NOTES

GOVERNING SPECIFICATIONS

THE 1988 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AS AMENDED BY THE MAY 02, 1994 SUPPLEMENTAL SPECIFICATION SHALL GOVERN.

EXCAVATION AND EARTHWORK

EXCAVATION AND PLACEMENT OF FILL IS INCLUDED IN THE GRADING PORTION OF THE CONTRACT UNLESS OTHERWISE NOTED.

EXCAVATE STREAM BED AS REQUIRED TO PLACE CLASS IV RANDOM RIPRAP.

PRIOR TO PLACING FOOTING CONCRETE A SOILS ENGINEER SHALL INSPECT THE EXISTING SOILS TO VERIFY BEARING CAPACITY OF 3000 PSI.

BACKFILL BEHIND HEADWALLS SHALL BE SELECT GRANULAR MATERIAL.

EXCAVATIONS ARE NOT TO CONTAIN WATER DURING SUBSTRUCTURE CONCRETE POURS. REQUIRED MEASURES SHALL BE AT CONTRACTORS EXPENSE.

CONCRETE

ALL CONCRETE SHALL CONFORM TO SPECIFICATION 2461.

ALL EXPOSED EDGES OF CONCRETE SHALL BE FINISHED WITH A ¾" CHAMFER UNLESS OTHERWISE NOTED.

REINFORCING STEEL

REINFORCEMENT BARS SHALL BE DEFORMED BILLET STEEL BARS CONFORMING TO SPECIFICATION 3301, GRADE 60.

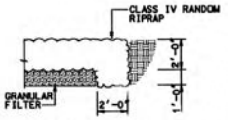
THE FIRST DIGIT OR THE FIRST TWO DIGITS OF EACH BAR MARK INDICATES THE BAR SIZE.

THE LAST TWO DIGITS INDICATE THE SEQUENTIAL NUMBERING.

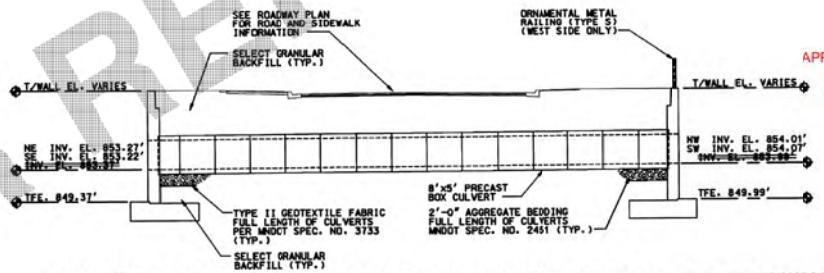
BARS MARKED WITH THE SUFFIX "E" SHALL BE EPOXY COATED. REINFORCEMENT BARS SHALL BE DELIVERED TO THE JOB SITE IN BUNDLES CLEARLY IDENTIFIED BY THE SPECIFIC LOCATIONS OF THE BARS.

STAGING

THE STAGING SEQUENCE SHALL BE AT THE CONTRACTOR'S OPTION BUT MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO BEGINNING THE FIRST POUR. SUCH APPROVAL SHALL NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR THE SUCCESS OR FAILURE OF THEIR PROPOSED STAGING SEQUENCE AND METHOD.



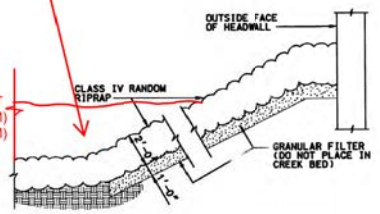
SECTION A-A



GENERAL ELEVATION 8'X5' PRECAST BOX CULVERT NO. 27J08 AND HEADWALL

ACCUMULATED SEDIMENT IN NORTH BOX CULVERT (DEPTH VARIES, TYP. 2-4 FEET)

APPROX. TOP OF SEDIMENT EL. 858.0 (UPSTREAM) EL. 856.4 (DOWNSTREAM)



TYPICAL RIPRAP SECTION

CONTRACTOR :
C.S. McCROSSAN CONSTRUCTION, INC.
7865 JEFFERSON HWY.
MAPLE GROVE, MN. 55311 3240
612-425-4167

SCENIC HEIGHTS DRIVE
HENNEPIN COUNTY
MINNETONKA, MN

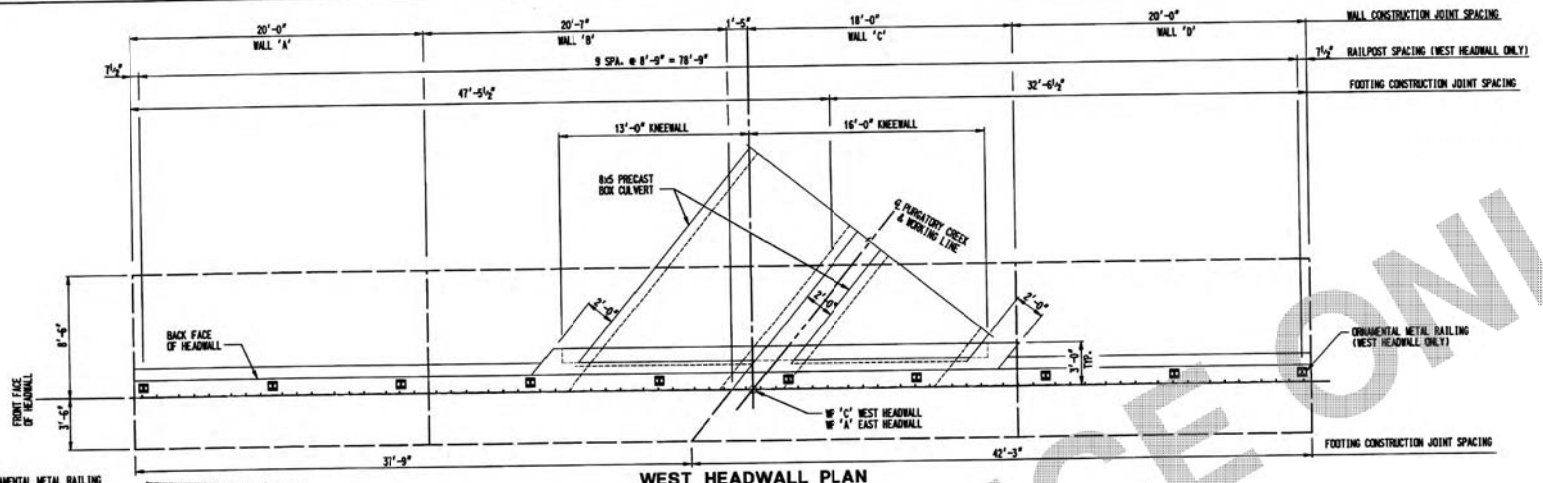
Orr Schelen Mayeron & Associates Inc
Engineers • Architects • Planners
Minneapolis, Minnesota

S-143

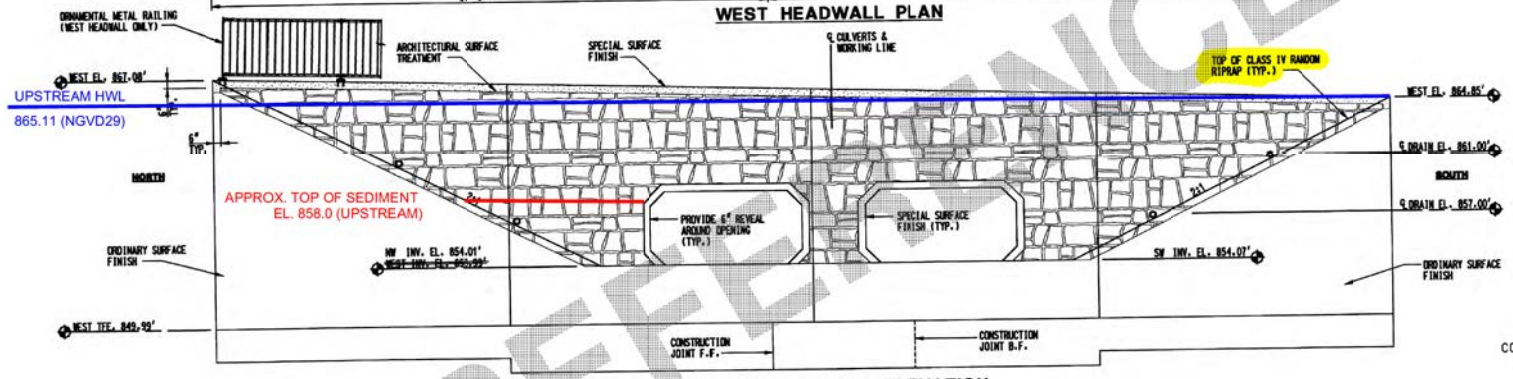
S.A.P. 142-142-02

GENERAL PLAN AND ELEVATION
CULVERT NO. #27J08

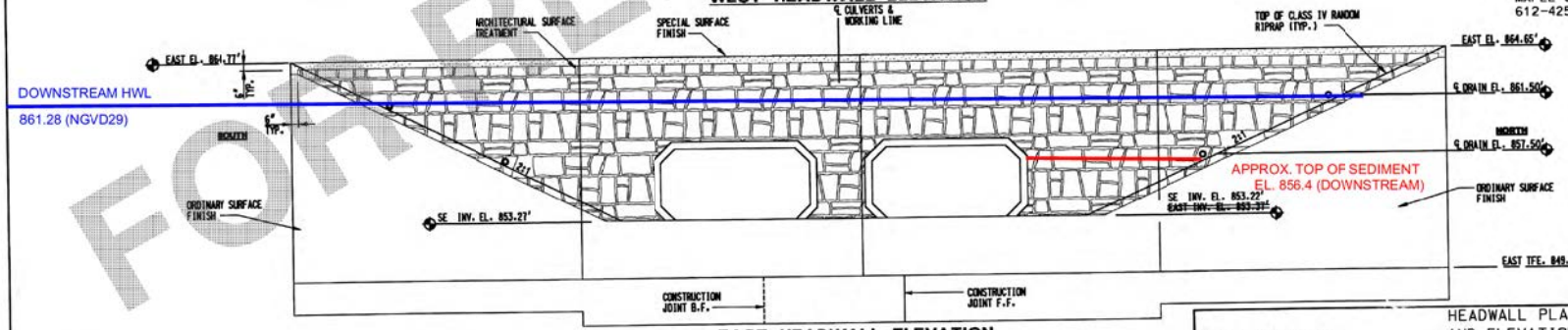
SHEET 35 OF 41 SHEETS



WEST HEADWALL PLAN



WEST HEADWALL ELEVATION



EAST HEADWALL ELEVATION

CONTRACTOR :
C.S. McCROSSAN CONSTRUCTION, INC.
7865 JEFFERSON HWY.
MAPLE GROVE, MN. 55311-6240
612-425-4167

SCENIC HEIGHTS DRIVE
HENNEPIN COUNTY
MINNETONKA, MN

Orr Schelen Mayeron & Associates, Inc.
Engineers • Architects • Planners • Surveyors
300 Park Place East • 5775 Wayzata Boulevard
Minneapolis MN 55416-1283 • 612-545-3731

S-149

S.A.P. 142-142-02

HEADWALL PLAN AND ELEVATION

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT
Cost-Share Funding Agreement
St. Luke of Minnetonka Presbyterian Church

LOCATION: **3121 Groveland School Road, Minnetonka, MN 55391**
PARCEL PIN: **1711722230003**

This cost-share Agreement, for support of water resource protection and education through the Riley Purgatory Bluff Creek Watershed District Cost-Share Program, is entered into between the Riley Purgatory Bluff Creek Watershed District, a public body with purposes and powers set forth at Minnesota Statutes chapters 103B and 103D (RPBCWD), and **St. Luke of Minnetonka Presbyterian Church** (OWNER), a Minnesota nonprofit corporation and fee title owner of the Common Elements of the Property, as described in The Articles of Incorporation recorded with the State of Minnesota as file number **C-783 filed on 8/19/1958** (the Property).

RPBCWD has determined that it will contribute cost-share funding for construction of water resources-conservation practices in conjunction with a project that OWNER has undertaken to **restore a woodland of 1.4 acres by controlling buckthorn and other invasive species and enhancement of native vegetation**. RPBCWD has determined the amount of funding that it will contribute to the construction and design of the practices on the basis of the water-quality improvement, public education and demonstration benefits that will be realized. RPBCWD commits to reimburse OWNER in accordance with the terms and on satisfaction of the conditions of this Agreement.

1. Scope of Work

OWNER will provide for construction of **1.4 acres of degraded woodland to native woodland plants and pollinator-friendly vegetation** (the Facilities) on the Property in accordance with the Site Plan, Design and Budget attached to and incorporated into this Agreement as Exhibit A. OWNER may adjust the work during construction based on field conditions or other adaptive design considerations as in its judgment will better achieve the purposes of the Facilities.

OWNER will submit to RPBCWD a report that includes a narrative describing the construction of the Facilities, as-built drawings of the Facilities, a description of and receipts documenting eligible costs incurred including in-kind contributions, a description of any changes made or expected to the Facilities and photographs documenting construction (Project Report). A final Project Report must be submitted to RPBCWD within 30 days of the certification by OWNER's engineer of completion of construction.

OWNER will maintain a copy of the Site Plan and Design and other records concerning the Facilities for six years from the date OWNER receives or completes the as-built drawings of the Facilities. RPBCWD may examine, audit or copy any such records on reasonable notice to OWNER.

2. Contractor

OWNER will select a contractor or contractors for the Facilities or construct the Facilities itself and ensure construction of the Facilities in substantial conformity with Exhibit A. In contracting for construction of the Facilities, OWNER will ensure that no person is excluded from full employment rights or participation in or benefits of any program, service, or activity on the grounds of race, color, creed, religion, age, sex, disability, marital status, sexual orientation, public-assistance status or national origin, and that no person protected by applicable federal or state laws, rules or regulations against discrimination is subject to discrimination. Further, OWNER will ensure that any contract for construction of the Facilities complies with state prevailing wages requirements, Minnesota Statutes sections 177.41 to 177.44 and corresponding Minnesota Rules 5200.1000 to 5200.1120.

3. Reimbursement

When RPBCWD has inspected the Facilities to confirm functionality and construction in material conformity with Exhibit A and received from OWNER:

a. documentation that the maintenance declaration required by section 5 of this Agreement has been filed for recordation; and

b. an invoice and receipts documenting the Facilities costs, along with any completed reimbursement forms required by RPBCWD,

RPBCWD will reimburse OWNER **75 percent** of OWNER's eligible costs to design and construct the Facilities. Contributed labor will not be reimbursed, but may be applied toward total cost of completion of the Facility. Labor contributed toward the completion of the Facility by OWNER will be assigned a value of $14.25 per hour for unskilled labor and $25 per hour for skilled labor. Reimbursement under this Agreement for installation of the facility will not exceed a total of **$11,800.00**. RPBCWD will make payment within 30 days of receipt of the invoice and required accompanying documentation described above, unless the RPBCWD finds that the Facilities do not meet standards described herein for reimbursement, in which case RPBCWD will provide an explanation to OWNER sufficient for OWNER to cure the deficiency.

RPBCWD on receipt and approval of documentation (including receipts) will reimburse the OWNER once per year over three consecutive years immediately following Facilities installation for professional maintenance of the Facilities. Reimbursement for professional maintenance of the Facilities under this Agreement will not exceed a total of **$3,540.00**.

RPBCWD has determined that partial performance of obligations under section 1 of this Agreement may confer no or limited benefit on RPBCWD. As a result:

a. RPBCWD may withhold 10 percent of any reimbursement under this section 3 until RPBCWD has confirmed substantial completion of the Facilities; and

b. if construction, including vegetation establishment where specified, of the Facilities is not substantially completed in material conformance with the approved plans and specifications within two (2) years of the date this Agreement is fully executed, subject to delays outside of OWNER's control, RPBCWD will not be obligated to provide reimbursement to OWNER under this Agreement and may declare this Agreement

rescinded and no longer of effect. Notwithstanding, the parties will consult before RPBCWD makes a decision to deny reimbursement or rescind the Agreement.

4. Right of Access

OWNER will permit RPBCWD representatives to enter the Property at reasonable times to inspect the work, ensure compliance with this Agreement and monitor or take samples for the purposes of assessing the construction or performance of the Facilities and compliance with the terms of this Agreement. If RPBCWD finds that an obligation under this Agreement is not being met, it will provide 30 days' written notice and opportunity to cure, and thereafter may declare this Agreement void. OWNER will reimburse RPBCWD for all costs incurred in the exercise of this authority, including reasonable engineering, legal and other contract costs.

5. Maintenance

Exhibit B, a declaration of covenants for inspection and maintenance of the Facilities, is attached to and incorporated into this Agreement. The attached declaration provides that OWNER and its successors and assigns will inspect and maintain the Facilities in accordance with Exhibit B. Within 30 days of the certification of completion of the Facilities by RPBCWD, OWNER will execute and file Exhibit B, or an instrument materially conforming thereto, with the county recorder or registrar, as appropriate. RPBCWD and its representatives may enter the Property at reasonable times to inspect the condition of the Facilities and confirm proper maintenance.

6. Acknowledgment and Publicity

The OWNER will cooperate with RPBCWD to seek Publicity and media coverage of the Facilities, and to allow members of the public periodically to enter the Property to view the Facilities in the company of an RPBCWD representative. OWNER will permit RPBCWD, at its cost and discretion, to place reasonable signage on OWNER's property informing the general public about the Facilities and RPBCWD's cost-share program.

7. Independent Relationship; Indemnification

RPBCWD's role under this Agreement is solely to provide funds to support the Facilities, in recognition of the maintenance, demonstration and dissemination of knowledge about innovative approaches to stormwater management. RPBCWD's review of design, plans and specification notwithstanding, RPBCWD has no authority to select, nor has it had any role in selecting, the design, means, method or manner of performing any work or the person or firm who will perform the work necessary to construct the Facilities. OWNER acts independently and selects the means, method and manner of constructing the Facilities. Review of any plans, specifications, design or installation by RPBCWD or its representative is solely for the purpose of establishing accountability for RPBCWD funds expended. Neither OWNER nor OWNER's contractor acts as the agent or representative of RPBCWD in any manner.

OWNER will hold RPBCWD, its officers, board members, employees and agents harmless, and will defend and indemnify RPBCWD, with respect to all actions, costs, damages and liabilities of any nature arising from: (a) OWNER's negligent or otherwise wrongful act or omission, or breach

of a specific contractual duty; or (b) a subcontractor's negligent or otherwise wrongful act or omission, or breach of a specific contractual duty owed by OWNER to RPBCWD. No action or inaction of RPBCWD or the OWNER under this Agreement creates a duty of care on the part of RPBCWD or the OWNER for the benefit of any third party.

8. Remedies; Immunities

Only contractual remedies are available for a party's failure to fulfill the terms of this Agreement. Notwithstanding any other term of this Agreement, the District and the Partner waive no immunities in tort. No action or inaction of a party under this Agreement creates a duty of care for the benefit of any third party. This Agreement creates no right in and waives no immunity, defense or liability limitation with respect to any third party.

9. Effective Date; Termination; Survival of Obligations

This Agreement is effective when fully executed by all parties and expires 5 years thereafter. RPBCWD retains the right to void this Agreement if construction of the Facilities is not certified as substantially complete by **December 31st, 2022**. RPBCWD may grant a request to extend the construction-completion period based on satisfactory explanation and documentation of the need for an extension. Upon issuance by RPBCWD of notice of RPBCWD's determination to void this Agreement, OWNER will not receive any further reimbursement for work subject to this Agreement, unless RPBCWD extends the construction-completion period.

All obligations that have come into being before termination, specifically including obligations under paragraphs 4, 5, 6, 7 and 8 will survive expiration.

10. Compliance With Laws

OWNER is responsible to secure all permits and comply with all other legal requirements applicable to the construction of the Facilities.

11. Notices

Any written communication required under this Agreement shall be addressed to the other party as follows:

To RPBCWD :

Administrator
Riley Purgatory Bluff Creek Watershed District
18681 Lake Drive East
Chanhassen, MN 55317

To OWNER:

St. Luke of Minnetonka Presbyterian Church
Attn: Brennan Blue
3121 Groveland School Road
Minnetonka, MN 55391

12. Waiver

RPBCWD's failure to insist on the performance of any obligation under this Agreement does not waive its right in the future to insist on strict performance of that or any other obligation. Notwithstanding any other term of this Agreement, RPBCWD waives no immunities in tort. This Agreement creates no rights in and waives no immunities with respect to any third party or a party to this Agreement.

13. Venue and Jurisdiction

The Agreement will be construed under and governed by the laws of the State of Minnesota. The appropriate venue and jurisdiction for any legal action hereunder will be Hennepin County, Minnesota.

Intending to be bound, the parties hereto execute and deliver this Agreement.

OWNER

_____ Date:
Name: _____
Title: _____

STATE OF MINNESOTA)
)ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 20__, by _____ as _____ of the _____.

_____
Notary Public

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

By _____ Date _____

Name _____

District Administrator

Exhibit A
[SITE PLAN, DESIGN, PLANS & SPECIFICATIONS/BUDGET]

Watershed Stewardship Grant Application

You cannot save this form. Gather all materials before you begin. You may want to use MS Word, Google Docs, or similar method to write out and save your responses before applying. Allow up to six weeks to process your application.

Applicant type *

Non-profit (association, church, etc.)

Property Owner Information

Owner Name *

St. Luke Presbyterian Church

Owner Mailing address *

3121 Groveland School Road

Street Address

Address Line 2

Minnetonka

City

55391

Postal / Zip Code

Owner Phone *

9524737378

Owner Email *

office@stluke.mn

Primary contact information

Who should the District contact about questions regarding the application?

☐ **Primary contact information is the same as above**

Contact Name *

Anne

First

Deuring

Last

Contact Phone

9524737378

Contact Email

office@stluke.mn

Site visit

Watershed Stewardship Grant Application

You cannot save this form. Gather all materials before you begin. You may want to use MS Word, Google Docs, or similar method to write out and save your responses before applying. Allow up to six weeks to process your application.

Have you had a site visit with the CCSWCD (Seth Ristow) or Watershed District technician? *

- [x] Yes
- [ ] No
- [ ] No, but I confirmed that I do not need one

Project Information

Project title *

St. Luke Woodland Habitat Restoration

Give your project a name

Projected total project cost *

15685.50 **USD**

Grant amount requested *

11,766.75 **USD**

If a project is awarded a grant, the grant award may be anywhere from 25% to 75%. Maximum grant award is 75% of project cost.

Estimated start date *

January-01-2022

MMMM-dd-yyyy

Any project work that occurs BEFORE a grant agreement is in place is NOT ELIGIBLE for grant fujds.

Estimated completion date *

December-31-2022

MMMM-dd-yyyy

Grantees have one (1) year to complete a project once a grant agreement is in place. This amount of time may be extended is circumstances are deemed reasonable by the grant coordinator.

if you selected "other", please describe:

Some impervious surface removal

Type of project *

- [ ] Raingarden
- [ ] Shoreline buffer and/or restoration
- [x] Habitat restoration
- [ ] Stormwater capture and reuse (cistern, rain barrel, etc.)
- [ ] Pervious pavers/permeable asphalt
- [ ] Vegetated swale
- [ ] Equipment purchase/retrofit
- [x] Other

Please check all that apply

Watershed Stewardship Grant Application

You cannot save this form. Gather all materials before you begin. You may want to use MS Word, Google Docs, or similar method to write out and save your responses before applying. Allow up to six weeks to process your application.

☑ **My project is within the Riley Purgatory Bluff Creek Watershed District** *

Project address *

3121 Groveland School Road

Street Address

3121 Groveland School Road

Address Line 2

Minnetonka

City

55391

Postal / Zip Code

Where will this project be installed/conducted?

Property ID number (PID) *

1711722230003

You can look up the PID using Hennepin County and Carver County online property maps. Find links to the under the Resources section of the grant webpage.

Please describe the current condition of the property, relevant site history, and past management *

St. Luke Presbyterian Church is seated on 4.29 acres at the northern tip of the Riley Purgatory Bluff Creek Watershed District. Prior to the church being established in 1957, the property was home to a small farmstead surrounded by plowed fields. The church building and attached parking lots were built in 1960 with additions occurring in 1970 and 1988. In the site's transition from farmland to church, 1.3 acres of the pervious area was maintained as turf grass while the remaining 1.4 acres of pervious area was allowed to revegetate on its own into a dense thicket of buckthorn and early succession trees.

As time passed, buckthorn further crowded the area and the site became neglected, save for a small section of the wooded area that was designated to support a Native American Sweat Lodge. Miscellaneous waste – mostly scrap metal and concrete – were dumped by neighboring individuals. As decades passed, a few attempts were made to clear the buckthorn using a small team of volunteers, but the lack of a coordinated effort and sustained volunteer/financial support led to these efforts failing. Eventually, church leaders chose to focus on smaller environmental efforts to promote environmental education and support our watershed. Rain gardens, food gardens, native plantings, and an apple orchard were all established in highly visible areas formerly serving as turf grass.

Currently, our overstory canopy in the woodland is 90% coverage. Native trees in the wooded area are:

-A wide abundance of ash and boxelder

-Several hackberry, American Elm, and Sumac

-A few each of Bur Oak, Black Walnut, Black Cherry, Juniper, Basswood.

Non-native tree species include Siberian Elm and White Mulberry. Most of the ground layer of the wooded area currently remains resprouted or missed buckthorn, garlic mustard, creeping bellflower, motherwort, Siberian squill, and several other non-native invasive species. We've also found 39 distinct native species, including Solomons seal, aster, avens, baneberry, ginger. These native ground layer plants are currently few in number though.

In the midst of the COVID-19 pandemic, leaders from the church believed the time was right to act on our values and transform our neglected woodland acreage into an environmental asset for our community, neighbors, watershed, and the many, diverse plants and creatures that may call this woodland area home. We've since developed the site and project plan described in the question below.

Watershed Stewardship Grant Application

You cannot save this form. Gather all materials before you begin. You may want to use MS Word, Google Docs, or similar method to write out and save your responses before applying. Allow up to six weeks to process your application.

Please describe the project in detail, including any site issues you are hoping to address through it. *

St. Luke has formed a Grounds Renewal Steering Team to coordinate a habitat restoration effort for the 1.4 acres of pervious, wooded property that surrounds our church. Our core goal is to restore the wooded habitat to a thriving, biologically diverse woodland ecosystem while using the work as an educational journey for the many volunteers and community members who interact with our site. The Grounds Renewal steering team is overseeing the work and logistics of the habitat restoration effort, along with the wider demands of communications, education, fundraising, and volunteer engagement. Our project scope and goals are reflected by our guiding vision to:
(1) Act as good stewards of the land on which we are located by (2) restoring a biologically diverse, native ecosystem habitat (3) that supports our local watershed and (4) welcomes the community into a beautiful, immersive learning environment that (5) nurtures climate connection and care.
The Steering Team developed an initial site and maintenance plan in the fall of 2020. In the winter of 2020-2021, we contracted with Minnesota Native Landscapes to cut, burn and shred all of the buckthorn throughout our property, dramatically opening and transforming the wooded landscape. Throughout 2021, St. Luke's woods restoration steering team has been guiding an ongoing habitat restoration, removing invasive species, hauling waste/debris, removing dead/dying trees, and preparing the site for new planting and seeding in 2022. Along the way, we've welcomed nearly 100 different volunteers of all ages and plan to use 2022 as an opportunity to further invite community partners into the work of supporting our watershed by restoring a thriving, biodiverse woodland habitat.
Our 2022 plan involves intentional seasons of volunteer engagement that welcome others into four core aspects of habitat restoration: planting, invasive removal, site planning/evaluation, and broad-based seeding. While each of these efforts relate to the ongoing maintenance needs of the habitat restoration, we also view them as immersive teaching opportunities to engage our congregation, community partners, and neighboring school groups.
Key site issues we aim to address include:
-Responsible removal of invasive species
-Responsible removal of waste/debris and one impervious historic concrete section
-Diversifying the plants, trees, and shrubs that make up our woodland area
-Succession planning for groves of ash trees
-Establishing a thoughtful network of trails and educational signs to promote environmental education
-Gradually replacing surrounding sections of turf grass with native plantings, once we restore the woodland habitat
Our 2022 plan focuses mainly on 1) native woody plantings at the outermost edges of the property and the Native American Sweat Lodge area and 2) seeding an herbaceous ground layer where invasives have been removed. Starting with the outer edges will help the trees and shrubs to establish with minimal interference from future work. We will work with the Native American community, using native medicinal plants - cedar, sage and sweet grass, to restore the enclosure feeling that the buckthorn had provided.

Watershed Stewardship Grant Application

You cannot save this form. Gather all materials before you begin. You may want to use MS Word, Google Docs, or similar method to write out and save your responses before applying. Allow up to six weeks to process your application.

Summarize your workplan. How will the project be completed? *

Our habitat restoration project will be a multiyear process, with January – December 2022 serving as a crucial Phase 2 year for our work. We are applying for grant assistance to help with the following work planned for 2022:
Winter 2022
We will order plants and seeds from reputable native seed nurseries as soon as we secure funding. Reserving our plant order in advance will allow us to plan early for a large tree/shrub planting event in the spring, which aims to serve as both an educational event and community service event. Throughout the winter, we will also work to continue removing dead and dying trees from the woodland acreage, opening up the canopy in preparation for spring planting and fall seeding. During this time, we will engage volunteers to help cut, chip and shred downed wood, with an intentional focus on teaching closed-loop resource management (i.e. keeping helpful biomass on-site rather than burning fossil fuels to haul them away). Depending on weather, we plan to seed a 1/10 acre of mostly ash trees with native woodland seed mix from Minnesota Native Landscapes using the "snow sandwich" concept. This area is the closest to being clear of invasives.
Spring 2022
In the early days of spring, we will continue with invasive removal efforts, especially in our proposed Phase 2 planting areas for our major planting event. In late May or early June, we will host a large planting event including a broad base of volunteers from our church community, regional faith partners, our neighboring elementary school, local environmental advocacy groups, Master Water Stewards, Master Gardeners, and Environmental partners. We have the planned goal of planting more than 250 native trees, shrubs and plugs at this event. In addition to the planting effort, we aim to host a lecture series on the importance and how-tos of habitat restoration work. We will also break up the concrete pad inside a historic foundation (increasing the pervious area of our woodland) and rent a 6 cubic yard dumpster to haul the debris away. We will also remove small sloped sections of turf grass alongside our walkway to the columbarium and plant native flowers and grasses in its place.
Summer 2022
In the summer, we will continue to focus on invasive species removal. We will host volunteer youth groups to share in invasive species removal and trail building work throughout the summer, teaching the basic tasks of habitat restoration and the importance of environmental stewardship along the way.
Fall 2022:
With continued progress made on invasive species removal, we will work with volunteer teams to broadcast native woodland and savannah seed mixtures throughout an additional .57 acres of our woodland floor, using the "snow sandwich" concept to achieve cold stratification over the winter.

Who will be completing the work, and where will you be purchasing supplies/equipment from? *

Our Grounds Renewal Steering Team will lead the effort and work with a broad base of rotating volunteers throughout the year. Our 2022 project aims to engage volunteers from:
• St. Luke Presbyterian Church
• The regional Presbytery of the Twin Cities Area
• Partner faith communities in Minnetonka with known interest in environmental stewardship
• Native American sweat lodge users and partners
• Minnetonka Climate Initiative
• West Metro Climate Action
• Sierra Club (North Star Chapter)
• Minnesota Interfaith Power and Light
• Friends of the Parks (Minnetonka)
• Master Water Stewards, Master Gardeners, and Environmental partners
• Groveland Elementary School
We will use several sources for plants, seeds, and supplies, including:
• Prairie Restorations, Inc.
• MN Native Landscapes
• Prairie Moon Nursery
• Landscape Alternatives
• Mother Earth Gardens
• BluPrairie Native Plant Nursery
• Outback Nursery
• ChippersDirect.com (for electric chipper shredder)

Provide contractor name if applicable. If using native plants/seeds, what is the source (name of grower/nursery)?

Other Funding

Watershed Stewardship Grant Application

You cannot save this form. Gather all materials before you begin. You may want to use MS Word, Google Docs, or similar method to write out and save your responses before applying. Allow up to six weeks to process your application.

Have you received, applied for, or intend to apply for a grant or other outside funding for this project? *

- [ ] Yes
- [x] No

If you answered "Yes" to the above question, please provide details.

If you have received or applied for a grant from your city, soil & water conservation district, or other outside source, please provide the name of the source(s) and the amount(s) in dollars.

Project Outcomes

Which water quality goals from the District's 10-year plan does your project meet? My project... *

- [x] Minimizes the negative impacts of erosion and sedimentation through the District's regulatory, education and outreach, and incentive programs
- [x] Incorporates habitat protection or enhancement into development and redevelopment projects
- [x] Establishes and preserves natural corridors for wildlife habitat and migration
- [ ] Uses natural materials and bioengineering for the maintenance and restoration of shorelines and streambanks
- [ ] Is a vegetated buffer
- [ ] Reduces chloride use and loading into water bodies
- [x] Minimizes pollutant loading to water resources
- [ ] Tests treatment effectiveness of emerging practices
- [ ] None of the above

Please check all that apply

Which water quantity goals from the District's 10-year plan does your project meet? My project... *

- [ ] Enhances the natural function of the floodplain and maintains floodplain storage volume
- [x] Minimizes baseflow impacts
- [x] Promotes infiltration, where feasible, as a best management practice to reduce runoff volume, improve water quality, and promote aquifer recharge.
- [x] Implements Low Impact Development (LID) practices
- [ ] Implements conservation practices (e.g. water reuse) to protect creeks, lakes and wetlands.
- [ ] None of the above

Please check all that apply

Education and Outreach

Watershed Stewardship Grant Application

You cannot save this form. Gather all materials before you begin. You may want to use MS Word, Google Docs, or similar method to write out and save your responses before applying. Allow up to six weeks to process your application.

How will your project increase awareness of water resource issues and/or clean water practices/projects? *

Every volunteer group working with us on the project will undergo a project orientation that outlines the central tasks of habitat restoration, the benefits of promoting biodiversity and native plants, and the impact this project will have on the wider Riley Purgatory Bluff Creek watershed. As a part of this latter topic, we will discuss how St. Luke's woodland area is situated at the northern tip of the Riley Purgatory Bluff Creek watershed, so every choice we make to improve or abuse our water stream will bear rippling impacts all throughout the community.
More broadly speaking, by restoring our neglected woodland to a thriving, biodiverse habitat with woodland trails and educational signage, we will be creating another free, open site for our community and neighbors to embrace for immersive environmental education. We are particularly excited to share this asset with our daycare tenant and the neighboring Groveland Elementary School.
We hope the project will also provide a shining example of how faith communities and other small-to-medium sized land holders can do their part to promote biodiversity and care for our watershed.

May we share your project with the community on our website, social media, or other media? *

- [x] Yes
- [ ] No

Could we highlight your project on a tour or training event (with prior notice and agreement)? *

- [x] Yes
- [ ] No

Maintenance and reporting

- [x] **I understand that if my project is approved for funding, I/ my organization will enter into a maintenance agreement with the Riley Purgatory Bluff Creek Watershed District** *

How will the project be monitored and maintained? *

Our Grounds Renewal Steering Team will be the lead monitoring, maintenance and logistics group for the project. The Steering Team is comprised of staff and members with experience in habitat restoration work and varying sub-specialties within the scope of the project. With three of our Steering Team members being on the staff of the church, we have been able to maintain weekly – sometimes even daily – monitoring of the project.
By approaching the project in phases, we are setting ourselves out to take big, yet manageable steps each year to remove invasive species and restore the habitat. After 3-5 years of deep transformation and renewal work, our Steering Team will shift from restoration work to ongoing maintenance (and enjoyment!) of the space.

Non-profits and homeowners are required to maintain their project for 5 years. Local government and businesses are required to maintain their project for 10 years.

- [x] **I understand that if my project is approved for funding I must submit a project report within 30 days of completing my project and a yearly report containing updates on maintenance and function of the project.** *

What variables will track and report? How will you track these variables? *

We plan to track the plant species present on the site, the number of user groups who interact with the site, and number of individuals who have received an educational orientation for habitat restoration and watershed stewardship as a result of volunteering with our project.
Tracking Species: We have an inventory of the plants currently on site, including invasives and helpful native plants. We will track the systematic removal of invasives alongside the gradual establishment of diverse native woodland species. New plantings and seedings will be tracked and inventoried each spring and fall to monitor their survival, health and spread. We will undergo transplantation efforts for any species that are failing to adapt to their new environment as expected.

Watershed Stewardship Grant Application

You cannot save this form. Gather all materials before you begin. You may want to use MS Word, Google Docs, or similar method to write out and save your responses before applying. Allow up to six weeks to process your application.

Attachments

Please upload the following required documentation. If you have more than 5 files, please email to lforbes@rpbcwd.org.

- Map showing location of project on your property. An aerial (satellite) image with contour/topographic lines is preferred.
- Project design showing details of your project (location of features, planting areas, etc.)
- Two or more photos of project area
- Cost estimates (include any bids/quotes from contractors)
- If project includes plants or seeds, supply a plant/seed list with quantity proposed. Include source of plants/seeds and scientific names.
- Equipment specifications (for equipment purchase/retrofit projects)

File Upload

Chipper_shredder_cut_sheet.JPG

HennCo_map_StLukeChurch.pdf

Proposed_Plant_List_and_Cost_Estimate.xlsx

Site_Plan_10-29-21.pdf

St._Luke_before_photos.pdf

Authorization to submit application

Name of landowner(s) or responsible party authorized to submit this application and sign any subsequent funding agreement(s).

Authorized Representative Name *

Brennan Blue

Role *

Senior Pastor

Date

October-29-2021

MMMM-dd-yyyy

☑ **I/we submit this application for consideration for a 2021 Watershed Stewardship Grant**

Residential neighbors

Proposed native trees and shrubs

Groveland School Road

Woodland Mix

Downy Yellow Violets

Wild Leeks

Sweet Grass

Savannah Mix

Impervious concrete to be removed

Stump Circle

Area to be seeded with native woodland seed mix in early 2022

Trailhead

Food Garden

Shed

Rock pile

Native American Sweat Lodge

Proposed native trees, shrubs & forbs

Trailhead

Woodland Mix

Savannah Mix

Columbarium

Food Garden

FUTURE PLANTING PHASE

Proposed native trees and shrubs

Residential neighbors

Trailhead

St. Luke Presbyterian Church

Turf grass removed and planted with native flowers and grasses

Playground

Raingarden

Raingarden

Labyrinth

Savannah Mix

Area to be seeded with native seed mix in late 2022

Woodland Mix

Trailhead

Future Prairie Planting

FUTURE PLANTING PHASE

Groveland School Elementary playground

St. Luke Presbyterian Church
Woodland Habitat Restoration

0' 10' 30' 80' North

Proposed Plant List - St. Luke Presbyterian Church

Plants

Common Name	*Binomial*	life cycle	Bloom time	Source	unit	price*	qty	total
Smooth Serviceberry (Junebe	*Amelanchier laevis*	perennial woody	April-May	Prairie Restorations, Inc	2 gal pot	$ 35.00	6	$ 210.00
Leadplant	*Amorpha canescens*	perennial woody	June, July, August	Prairie Restorations, Inc	6 pack	$ 9.00	6	$ 54.00
Sweet Grass	*Anthoxanthum hirtum*	perennial	June-July	Prairie Restorations, Inc	6 pack	$ 9.00	10	$ 90.00
Black chokeberry	*Aronia melanocarpa*	perennial woody	May-July	Prairie Restorations, Inc	2 gal pot	$ 25.00	10	$ 250.00
Prairie Sage	*Artemisia ludoviciana*	perennial	July-October	Prairie Restorations, Inc	6 pack	$ 9.00	10	$ 90.00
Butterfly Weed	*Asclepias tuberosa*	perennial	June-September	Prairie Restorations, Inc	6 pack	$ 9.00	3	$ 27.00
American hornbeam (Blue Beech)	*Carpinus caroliniana ssp. virginiana*	perennial woody	April-May	Outback Nursery	#2 Pot	$ 21.45	15	$ 321.75
New Jersey Tea	*Ceanothus americanus*	perennial woody	June, July, August	Prairie Restorations, Inc	2 gal pot	$ 30.00	25	$ 750.00
Pagoda dogwood	*Cornus alternifolia*	perennial woody	May-June	Prairie Restorations, Inc	2 gal pot	$ 30.00	15	$ 450.00
Gray dogwood	*Cornus racemosa*	perennial woody	June-July	Prairie Restorations, Inc	2 gal pot	$ 25.00	17	$ 425.00
American hazelnut	*Corylus americana*	perennial woody	April-May	Prairie Restorations, Inc	2 gal pot	$ 45.00	25	$ 1,125.00
Wild Geranium	*Geranium maculatum*	perennial	May-June	Prairie Restorations, Inc	6 pack	$ 9.00	3	$ 27.00
Prairie Smoke	*Geum triflorum*	perennial	April-June	Prairie Restorations, Inc	6 pack	$ 9.00	7	$ 63.00
Witch Hazel	*Hamamelis virginiana*	perennial woody	Sept - Nov	Landscape Alternatives	#2 pot	$ 22.95	19	$ 436.05
Common Juniper	*Juniperus communis*	perennial woody	May-June	Prairie Restorations, Inc	2 gal pot	$ 25.00	5	$ 125.00
Red Cedar	*Juniperus virginiana*	perennial woody	April-May	Prairie Restorations, Inc	2 gal pot	$ 30.00	10	$ 300.00
Ironwood	*Ostrya virginiana*	perennial woody	April-May	Prairie Restorations, Inc	5 gal pot	$ 60.00	16	$ 960.00
Prairie Phlox	*Phlox pilosa*	perennial	May-July	Prairie Restorations, Inc	6 pack	$ 9.00	2	$ 18.00
Chokecherry	*Prunus virginiana*	perennial woody	May-June	Prairie Restorations, Inc	2 gal pot	$ 25.00	30	$ 750.00
Little Bluestem	*Schizachyrium scoparium*	perennial	August-September	Prairie Restorations, Inc	6 pack	$ 9.00	8	$ 72.00
Prairie Dropseed	*Sporobolus heterolepis*	perennial	August-October	Prairie Restorations, Inc	6 pack	$ 9.00	8	$ 72.00
Asure Aster	*Symphyotrichum oolentangiense*	perennial	August-October	Prairie Restorations, Inc	6 pack	$ 9.00	6	$ 54.00
White Cedar	*Thuja occidentalis*	perennial woody	April-May	Prairie Restorations, Inc	2 gal pot	$ 30.00	12	$ 360.00
Nannyberry	*Viburnum lentago*	perennial woody	May-June	Prairie Restorations, Inc	2 gal pot	$ 30.00	16	$ 480.00
High-bush Cranberry	*Viburnum trilobum*	perennial woody	May-June	Prairie Restorations, Inc	2 gal pot	$ 30.00	20	$ 600.00
							total plants	304 $ 8,109.80

Seed

MNL Woodland Seed Mix - January 2022				Mn Native Landscapes	5000 sf	$ 460.00	1	$ 460.00
MNL Woodland Seed Mix - Late Fall 2022				Mn Native Landscapes	1/2 acre	$ 1,275.00	1	$ 1,275.00
MNL Savannah Seed Mix - Late Fall 2022				Mn Native Landscapes	1/4 acre	$ 400.00	1	$ 400.00

Supplies

Patriot Electric Chipper Shredder				ChippersDirect.com		$ 1,180.00	1	$ 1,180.00
Temporary Dumpster rental				Randy's Sanitation	6 cu. Yd	$ 341.95	1	$ 341.95
							Total plants, seeds, supplies	$ 11,766.75

Labor

In-kind labor (25%)					hours	$ 14.25	275	$ 3,918.75
							Total cost of project	$ 15,685.50

*based on 2021 price lists

Total grant request (total cost of project minus in-kind labor) $ 11,766.75

St. Luke Presbyterian Church
3121 Groveland School Road
Minnetonka, Minnesota 55391
(952) 473-7378

November 30, 2021

Maintenance Outline for St. Luke Presbyterian Church

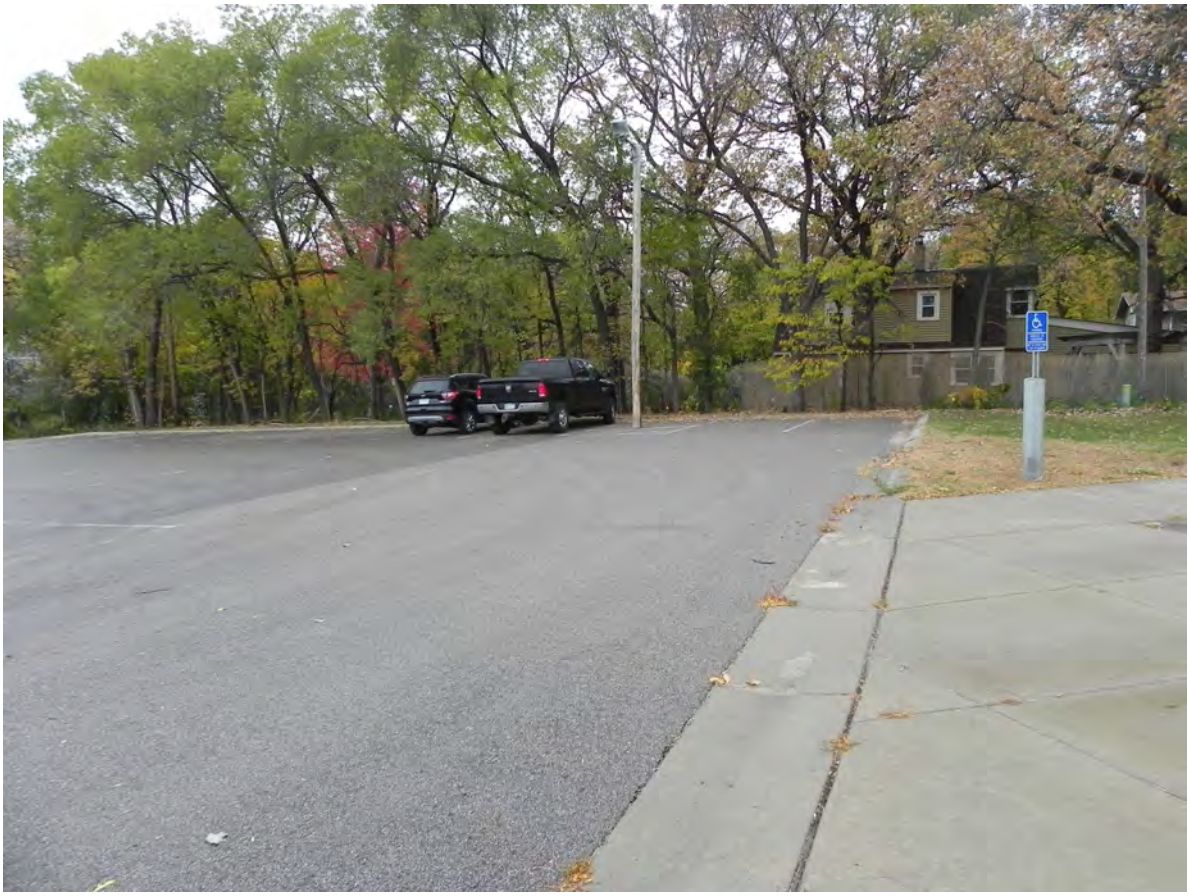
St. Luke Presbyterian Church intends to hire a qualified professional to perform maintenance of the habitat restoration for at least three years. This will likely be Prairie Restorations, Inc. because of their reputation and integrity.

We have requested but not yet received a recommended management plan from Prairie Restorations, Inc. but it will likely include management of buckthorn seedings and resprouts beginning in fall of 2022 and continuing each spring and fall for three years.

The task will likely be a combination of techniques, including selective basal bark treatment, stump treatment, foliar spraying and hand weeding. We have also requested that they involve community volunteers in their management plans for education and training purposes.

Responsible person: Brennan Blue, Senior Pastor

Project contact: Anne Deuring, Secretary



Proposed planting strip along northwest edge of property.

Historic foundation with concrete slab within. We want to remove the slab.

Views into the Sweat Lodge area demonstrating the openness without the buckthorn

Native trees and shrubs are proposed to be planted along this eastern edge of property where buckthorn was removed and garlic mustard has now taken control.

Some of our wonderful volunteers, and the hard work we've been up to, to prepare the site for restoration.

Riley-Purgatory-Bluff Creek Watershed District 11/30/2021

Watershed Stewardship Grant **OFFER Calculation**

APPLICANT *Non-profit*

St. Luke Presbyterian Church (Anne Deuring)
3121 Groveland School Road
Minnetonka 55391

PROJECT TYPE/NAME
Habitat restoration
St. Luke Woodland Restoration

COST SHARE OFFER **75%**

NOT-TO-EXCEED AMOUNT **$11,800.00**
To be included in signed grant agreement

Project Estimate & Base Grant Award Calculation

Purchased Services & Supplies

DATE/TIMING	VENDOR	ITEM DESCRIPTION	QUANTITY	PRICE/ITEM	COST	ELIGIBLE COST
Growing season 2022	Prairie Resto & Outback Nursery	Native plants (live)	1	$8,109.80	$8,109.80	**$8,109.80**
Jan 2022	MNL	Woodland seed mix	1	$460.00	$460.00	**$460.00**
Late fall 2022	MNL	Woodland seed mix	1	$1,275.00	$1,275.00	**$1,275.00**
Late fall 2022	MNL	Savanna seed mix	1	$400.00	$400.00	**$400.00**
	ChippersDirect.com	Chipper/shredder	1	$1,180.00	$1,180.00	**$1,180.00**
	Randy's Sanitation	Dumpster rental	1	$341.95	$341.95	**$341.95**
			1		$0.00	**$0.00**
			1		$0.00	**$0.00**
				SUBTOTAL	$11,766.75	**$11,766.75**

In-Kind Contributions

CONTRIBUTION	TYPE	ITEM DESCRIPTION	QUANTITY	VALUE	TOTAL VALUE
In-kind labor	*Non-professional*	*$14.25/hour rate*	278.0	$14.25	$3,961.50
In-kind labor	*Professional*	*$25.00/hour rate*	0.0	$25.00	$0.00
In-kind supplies		*TBD*	0.0	$0.00	$0.00
				SUBTOTAL	**$3,961.50**

Percent of total cost: 25.19%

Applicant type	Maximum base grant award
Individual homeowner	Up to 75% NTE **$5,000**/year
Non-profit	Up to 75% NTE **$20,000**/year
Gov/school/business	Up to 50% NTE **$50,000**/year

ELIGIBLE GRAND TOTAL	**$15,728.25**
Cost-share award	75%
% equivalent in dollars (not grant offer)	$11,796.19
Rounded/not-to-exceed amount	$11,800.00
Base Grant Offer	**$11,800.00**

Professional Maintenance Cost-Share Calculation

The Maintenance Award is the TOTAL amount available for reimbursement to grantee for three years of professional maintenance. The maximum Maintenance Award is 30% of Base Grant Award. The Maintenance Award is for reimbursement of maintenance services provided by an approved professional contractor. The Maintenance Award is to be used over three years. Division of support amount over the three years is up to the descretion of the grant program manager.

Three years of professional maintenance <u>following grant agreement closure</u>

Timing/Activity	Estimated Cost
YEAR 1	
Spring maintenance	$300.00
Fall maintenance	$300.00
Other	$300.00
YEAR 2	
Spring maintenance	$300.00
Fall maintenance	$300.00
Other	$300.00
YEAR 3	
Spring maintenance	$300.00
Fall maintenance	$300.00
Other	$300.00
Taxes estimate	$0.00
EST. MAINTENANCE COST for 3 years (may be higher/lower depending on site conditions over time)	**$2,700.00**

Estimate only. Final maintenance plan to be determined by professional with approval by RPBCWD staff.

Per the grant agreement, the grantee MUST maintain the project for 5 years. The grant agreement does not specify that maintenance must be done by a professional. As the early years of a project are important for project establishment, RPBCWD offers financial support for the first three years of maintenance if done by a professional.

Grantee must commit to 3 years of professional maintenance in order to receive maintenance cost share support from RPBCWD. Professional maintenance *after* the first three years is not reimburseable through the grant program.

The maintenance award for will not exceed the total shown below. The total must be reimbursed over 3 years on an annual basis at the discretion of the grant program coordinator. The "Per year value" shown below provides an estimate of the per year value of the maintenance award, though the actual yearly value may be different based on distribution of maintenance costs over the three years.

Maintenance Award

Base Grant Award (from above)	$11,800
Maintenance Award	**30%**
Total in dollars	**$3,540**
Per year value (Total/3)	$1,180

This is the maximum amount that RPBCWD is willing to cost-share for professional maintenance.

EXHIBIT B
MAINTENANCE DECLARATION

DECLARATION

THIS DECLARATION (Declaration) is made this _____ day of _____, 20__, by _____ , (Declarant) in favor of the Riley Purgatory Bluff Creek Watershed District, a special purpose local unit of government with purposes and powers pursuant to Minnesota Statutes Chapters 103B and 103D (RPBCWD).

RECITALS

WHEREAS, Declarant is the fee Declarant of real property within the City of Minnetonka, Hennepin County, Minnesota, platted and legally described as:

3121 Groveland School Road, Minnetonka, MN 55391

(the Property) and no one other than Declarant, [and name parties executing declaration of Consent and Subordination, if any], has any right, title or interest in the Property; and

WHEREAS, Declarant and the Riley Purgatory Bluff Creek Watershed District (RPBCWD) have executed a Cost-Share Agreement for the construction and maintenance of features shown in the Site Plan and Design, attached to and incorporated into this Funding Agreement as Attachment A (the Facilities), for water resource protection demonstration and education purposes; and

WHEREAS, Declarant desires to subject the Property to certain conditions and restrictions imposed by the RPBCWD as a condition of participation in the RPBCWD Cost-Share Program, including maintenance for five (5) years from the date of certification of completion of construction of the Facilities and the RPBCWD's for the mutual benefit of the RPBCWD and the Declarant.

WHEREAS Declarant assumes the obligations hereunder to induce RPBCWD to enter into the Cost-Share Agreement, and agrees that there is valuable consideration for its obligations, and that this instrument is legally binding;

NOW THEREFORE Declarant makes this Declaration and hereby declares that this Declaration shall constitute covenants to run with the Property, and further declares that the Property shall be owned, used, occupied, and conveyed subject to the covenants, restrictions, easements, charges and liens set forth in this Declaration for five (5) years from the date of certification of completion of construction of the Facilities, all of which shall be binding on all persons owning or acquiring any right, title or interest in the Property and their heirs, successors, personal representatives and assigns.

1. **Maintenance Obligation**. Owner will maintain the Facilities, as described in the Site Plan and Work Plan attached hereto and incorporated herein as Attachment A (the Facilities), in accordance with the Maintenance Plan & Schedule attached hereto and incorporated herein as Attachment B.

2. **Termination.** The property owner's obligations hereunder will be terminated on December 31st, 2026.

3. **Owner.** "Owner" as used in this Declaration and Attachment B means the Declarant(s) and the owner(s) of the property on which is located the Facilities to which the obligations herein apply.

4. **Recitals**. The recitals set forth above are expressly incorporated herein.

5. **Amendment.** No amendment or vacation of this Declaration will be valid without the signature of an authorized RPBCWD representative.

IN WITNESS WHEREOF, the undersigned executes this instrument the day and year first set forth.

Declarant

By:_____ Date: _____
St. Luke Presbyterian Church

STATE OF MINNESOTA)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 20__, by _____ [and _____], as _____.

_____
Notary Public

ACCEPTED:

Riley Purgatory Bluff Creek Watershed District

By: _____

Name: _____

Administrator

STATE OF MINNESOTA)
) ss.
COUNTY OF _____)

The foregoing instrument was acknowledged before me on this _____ day of _____, 20__, by _____ as _____ of the Riley Purgatory Bluff Creek Watershed District.

_____
Notary Public

Exhibit A
Site Plan and Design

Residential neighbors

Proposed native trees and shrubs

Groveland School Road

Woodland Mix

Downy Yellow Violets

Wild Leeks

Sweet Grass

Savannah Mix

Impervious concrete to be removed

Stump Circle

Area to be seeded with native woodland seed mix in early 2022

Trailhead

Food Garden

Shed

Rock pile

Native American Sweat Lodge

Proposed native trees, shrubs & forbs

Trailhead

Woodland Mix

Savannah Mix

Columbarium

Food Garden

FUTURE PLANTING PHASE

Proposed native trees and shrubs

Residential neighbors

Trailhead

St. Luke Presbyterian Church

Turf grass removed and planted with native flowers and grasses

Playground

Raingarden

Raingarden

Labyrinth

Savannah Mix

Area to be seeded with native seed mix in late 2022

Woodland Mix

Trailhead

Future Prairie Planting

FUTURE PLANTING PHASE

Groveland School Elementary playground

St. Luke Presbyterian Church
Woodland Habitat Restoration

0' 10' 30' 80' North

Exhibit B
Maintenance Plan & Schedule

Native Plant Restoration Area(s). Native plant restoration area(s) described in the Site Plan and Design attached as Exhibit A to the Agreement must be maintained as follows:

a. The restoration will be maintained for at least five (5) years from mowing and other vegetative disturbance except as specified herein, fertilizer application, yard or other waste disposal, the placement of structures, or any other alteration that impedes the function of the woodland restoration in protecting water quality, shading riparian edge areas, moderating flow into an adjacent wetland or waterbody or providing habitat.

b. As feasible under applicable city, county or other code, the woodland restoration area will be subject to annual maintenance by a qualified professional to control invasive species. Invasive vegetation will be controlled using one or more techniques including pulling, prescribed burning, mowing, herbicide application, or other technique deemed appropriate by qualified professional and approved by RPBCWD staff.

c. Each spring, restoration areas will be seeded or planted with native vegetation as necessary to maintain ecological health and function and in accordance with a written proposal or plan prepared by the Owner and approved by RPBCWD staff.

Reporting. Owner will submit to the RPBCWD on an annual basis for five (5) years following completion of the project described in the Site Plan and Design attached as Exhibit A to the Agreement a brief written report that describes the maintenance activities performed under the Agreement to which this Exhibit is attached, including dates, locations of inspection, maintenance activities performed, and photographs of the Project.

Progress Payment Number 1

1.0	Total Completed Through This Period	$ 92,887.78		
2.0	Total Completed Previous Period		$0.00	
3.0	Total Completed This Period			$0.00
4.0	Amount Retained, Previous Period		$0.00	
5.0	Amount Retained, This Period (See Note 1)		$4,644.39	
6.0	Total Amount Retained		$4,644.39	
7.0	Retainage Released Through This Period:			$0.00
8.0	Amount Due This Period			$ 88,243.39

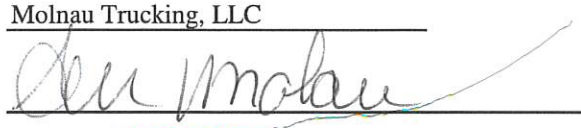
Note 1: At rate of 5% until Completed to Date equals 50% of current Contract Price and a rate of 0% thereafter if character and progress of work is satisfactory to owner and engineer

SUBMITTED BY:

Name: Anna Molnau Date: 11/15/2021

Title: Controller

Contractor: Molnau Trucking, LLC

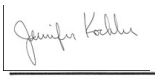
Signature: 

RECOMMENDED BY:

Name: Jennifer Koehler, PE Date: 11/15/2021

Title: Senior Water Resources Engineer

Engineer: Barr Engineering

Signature: 

APPROVED BY:

Name: Terry Jeffery Date: 11/15/2021

Title: Interim District Administrator

Owner: Riley-Purgatory-Bluff Creek Watershed District

Signature:

SILVER LAKE WATER QUALITY IMPROVEMENT PROJECT

						(1) Total Completed Through This Period		Percent Complete	(2) Total Completed This Period	
1.04 Item	Description	Unit	Estimated Quantity	Unit Price	Extension	Quantity	Amount		Quantity	Amount
1	Mobilization/Demobilization (10%)	L.S.	1	$ 12,914.50	$ 12,914.50	0.5	$6,457.25	50%		$6,457.25
2	Traffic Control	L.S.	1	$ 2,760.00	$ 2,760.00	1	$2,760.00	100%		$2,760.00
3	Rock Construction Entrance	Each	1	$ 1,380.00	$ 1,380.00	0.8	$1,104.00	80%		$1,104.00
4	Silt Fence	L.F.	270	$ 2.88	$ 777.60	216	$622.08	80%		$622.08
5	Sediment Log	L.F.	700	$ 4.03	$ 2,821.00	536	$2,160.08	77%		$2,160.08
6	Inlet Protection	Each	5	$ 109.25	$ 546.25	4	$437.00	80%		$437.00
7	Clearing & Grubbing	Acre	0	$ 4,107.14	$ 1,150.00	0.28	$1,150.00	100%		$1,150.00
8	Tree Removals	Each	19	$ 151.32	$ 2,875.08	7	$1,059.24	37%		$1,059.24
9	Sawcut Bituminous (P)	L.F.	145	$ 2.30	$ 333.50	120	$276.00	83%		$276.00
10	Remove and Dispose of 4-inch Bituminous (P)	S.Y.	130	$ 6.38	$ 829.40	110	$701.80	85%		$701.80
11	Raise Sanitary Sewer Manhole Rim Elevation	Each	1	$ 402.50	$ 402.50	0	$0.00	0%		$0.00
12	48-inch Diameter Manhole with grate, complete	Each	1	$ 5,700.88	$ 5,700.88	0.9	$5,130.79	90%		$5,130.79
13	72-inch Diameter Manhole with SAFL Baffle, access, and catch basin grate, complete	Each	1	$ 13,987.86	$ 13,987.86	0.9	$12,589.07	90%		$12,589.07
14	Precast Concrete Catch Basin Structure and Grate, complete	Each	4	$ 1,739.74	$ 6,958.96	4	$6,958.96	100%		$6,958.96
15	15-inch RCP Storm Sewer	L.F.	28	$ 49.83	$ 1,395.24	28	$1,395.24	100%		$1,395.24
16	18-inch RCP Storm Sewer	L.F.	60	$ 53.57	$ 3,214.20	60	$3,214.20	100%		$3,214.20
17	18-inch RCP Flared End Section	Each	1	$ 1,133.70	$ 1,133.70	1	$1,133.70	100%		$1,133.70
18	Random Riprap, Class III with Aggregate Filter/Fabric (P)	Ton	17	$ 111.75	$ 1,899.75	17	$1,899.75	100%		$1,899.75
19	Excavate and Stockpile Fill for Reuse Onsite (P)	C.Y.	35	$ 46.00	$ 1,610.00	35	$1,610.00	100%		$1,610.00
20	Fill Onsite (P)	C.Y.	35	$ 26.29	$ 920.15	35	$920.15	100%		$920.15
21	Excavate, Haul, and Dispose of Excess Material (P)	C.Y.	175	$ 35.12	$ 6,146.00	175	$6,146.00	100%		$6,146.00
22	Common Borrow Import & Placement	C.Y.	5	$ 40.25	$ 201.25	0	$0.00	0%		$0.00
23	Topsoil Placement (P)	C.Y.	230	$ 49.45	$ 11,373.50	0	$0.00	0%		$0.00
24	Concrete Curb and Gutter with Base	L.F.	120	$ 59.17	$ 7,100.40	100	$5,917.00	83%		$5,917.00
25	Type SP9.5 Wearing Course 2-inch thick (P)	S.Y.	130	$ 24.15	$ 3,139.50	144	$3,477.60	111%		$3,477.60
26	Type SP12.5 Base Course 2-inch thick (P)	S.Y.	130	$ 24.15	$ 3,139.50	144	$3,477.60	111%		$3,477.60
27	Aggregate Base, Class 5 (12-inch base) (P)	C.Y.	44	$ 42.98	$ 1,891.12	37	$1,590.26	84%		$1,590.26
28	Iron-Enhanced Ditch Checks, complete	Each	5	$ 4,140.00	$ 20,700.00	5	$20,700.00	100%		$20,700.00
29	Erosion Control Blanket (Category 3N2S)	S.Y.	1,398	$ 2.24	$ 3,131.52	0	$0.00	0%		$0.00
30	Site Seeding (MnDOT 34-261 Riparian South & West)	AC	0.29	$ 4,111.25	$ 1,192.26	0	$0.00	0%		$0.00
31	Shrub Planting (1 gal)	Each	69	$ 28.75	$ 1,983.75	0	$0.00	0%		$0.00
32	Perennial Planting (plug)	Each	236	$ 3.45	$ 814.20	0	$0.00	0%		$0.00
33	Tree with Deer Protection Fencing	Each	4	$ 661.25	$ 2,645.00	0	$0.00	0%		$0.00
34	Buffer Zone Signage	Each	4	$ 115.00	$ 460.00	0	$0.00	0%		$0.00
35	Year 1 Establishment and Maintenance	LS	1	$ 1,799.75	$ 1,799.75	0	$0.00	0%		$0.00
36	Year 2 Establishment and Maintenance	LS	1	$ 1,380.00	$ 1,380.00	0	$0.00	0%		$0.00
37	Year 3 Establishment and Maintenance	LS	1	$ 1,380.00	$ 1,380.00	0	$0.00	0%		$0.00
				Total Base Bid + Change Order 1:	**$ 132,088.32**		**$ 92,887.78**			**$ 92,887.78**

resourceful. naturally.
engineering and environmental consultants

BARR

Memorandum

To: RPBCWD Board of Managers
From: Jennifer Koehler
Subject: Silver Lake Water Quality Improvement Project – Request for additional engineering services during construction budget
Date: December 2, 2021
Project: 23/27-0053.14 024B

Requested Board Action

Barr requests that the RPBCWD Board of Managers consider authorizing Barr Engineering to spend an additional budget of $24,000 for engineering services during construction related to the Silver Lake Water Quality Improvement Project, including work incurred to date as well as anticipated future work remaining.

In December 2018, the RPBCWD completed a feasibility study to identify water quality improvement projects to stabilized and eroding channel and treat stormwater runoff on the south end of Silver Lake. The feasibility study recommended ditch checks with iron-enhanced sand placed within the stabilized ravine. The feasibility study indicated that the project capital cost estimated to range from $98,000-$183,000, including design, permitting, and construction.

At the March 2020 Board meeting, the RPBCWD Board of Managers authorized final design and preparation of construction documents for the Silver Lake Water Quality Improvement project based on findings in the feasibility study, with design in 2020/2021 and construction being completed by fall 2021.

The authorized engineering, design, and construction oversight budget is $74,300. The increase in the final design complexity due to input from City and District staff, extending the project onto private property, and revised MNDOT guidance, the estimated construction cost was also higher than estimated during feasibility. The engineer's opinion of probably cost for the final design was $171,676.14.

The Board authorized project bidding in March 2021, with bid opening on March 29, 2021. Molnau Trucking, LLC (Molnau) was selected as the contractor with the original contract amount for construction of $128,936.18. The project was awarded at the April 2021 Board meeting. Notice to proceed was executed on May 28, 2021 with Molnau intending to complete the work in the later work window identified in the contract documents (August 1, 2021 – September 30, 2021). A preconstruction meeting was held on July 19, 2021 and Molnau assured Barr, District, and City staff that work would be substantially complete by the date in the contract. Molnau provided a construction schedule on August 18, 2021 indicating work with begin on September 3, 2021 with work to be completed by September 30, 2021. Barr and City of Chanhassen staff met with Molnau onsite on September 8, 2021, and Molnau

communicated they would mobilize to the site on September 10, 2021. However, Molnau had not mobilized or initiated construction as of the contract date of substantial completion (September 30, 2021).

Molnau mobilized to the site on October 15, 2021. Initial conversations with Molnau indicated that the project would take 2 weeks to complete, with an initial anticipated completion date of November 5. Work was considered substantially complete as of November 19, 2021, two weeks later than initially indicated. Barr reviewed the site on November 22, 2021 and developed a final project punchlist for Molanu to complete, requesting work to be complete by November 30, 2021. Molnau indicated the punch list was complete on November 29, 2021. Barr reviewed the site again on November 30, 2021 and concluded that most items on the punch list were not actually addressed/complete and have followed up with Molnau with the outstanding items. Barr also reminded Molnau they are responsible for as-built survey for the project.

Summary of Project Overage and Remaining Work

The September 2021 Engineer's Report included a budget status indicating only $3,100 was remaining in the construction oversight budget, construction had not officially started, and that efforts to this point had taken more coordination with the contractor than would typically be required for this type of project. Additionally, as of the October 2021 invoice (October 1- October 31), it was noted that the Silver Lake Water Quality Improvement Project was overbudget, that engineering services during construction took significantly more effort (both field and office) than anticipated, and Interim Administrator Jeffery was aware of the additional work that was needed but also recognized work needed to continue for construction to be completed during this season.

Barr is requesting additional project budget for the following reasons:

- Throughout this period, Barr had significant on-going communication with Molnau to understand schedule and attempt to keep the project moving. However, the contractor was typically nonresponsive or did not carry through on actions when communicated. This led to numerous trips to the construction site for construction oversight when the contractor indicated they were going to be starting work only to discover that the contractor was not at the site. The amount of communications and coordination required exceeds efforts typically required for construction projects of this magnitude. In addition, the amount of construction observation and associated office coordination significantly exceeded the level allocated in the task order (174 hours versus the allocated 80 hours).
- Preparation for and attendance of several meetings held with Interim Administrator Jeffery and Counsel Welch to discuss potential steps to remedy Molnau's lack of progress.
- Change Order 1 was coordinated and executed to address new/additional erosion that was observed along Pleasantview Road at the September 8 site visit. This additional erosion occurred over the winter 2020/2021, after the original design survey was completed and after our most

recent design site visits in December 2020. Interim Administrator Jeffery executed Change Order 1 on November 5, 2021.

- Remaining work for the project that will require continued effort by Barr staff (or District staff), including:
    - Punchlist walkthrough and follow-up;
    - As-built survey (although Contract documents require of Molnau to complete, we do not anticipate the contractor will complete this work)
    - Record drawing development and comparison against design;
    - Construction closeout memo;
    - 3-year vegetation establishment/maintenance inspection;
    - Continued project coordination/construction administration during vegetation establishment period

Table 1 summarizes the current work overage and future work remaining. There are potential cost saving opportunities related to the work remaining if Molnau completes the as-built survey or the construction memo is eliminated from the scope.

Table 1: Silver Lake Water Quality Improvement Project Engineering Services during Construction Budget Summary

Descriptions	Authorized Budget	Actual Spent[2]/ Remaining Work	Difference	Comment
Task Order 24B -Final Design/Construction Administration	$74,300.00[1]	$85,195.08[2]	-$10,895.08	Barr work through 11/26/2021
Future Work Remaining: Punchlist walkthrough; As-built survey; Record drawing development and comparison against design; construction closeout memo; 3 years vegetation inspection; coordination/construction admin *(budgeted 84 hours)*		$13,100.00	-$13,100.00	There are potential cost saving opportunities if RPBCWD staff elect to undertake some of the activities (e.g., survey, veg inspection) or forgoing the construction memo
Total Overage (including anticipated remaining work)			-$23,995.08	

1-Barr's total authorized budget for this project ($64,400+$9,900= $174,300, which is comprised of the original task order and Administrator Bleser authorization of additional design work resulting from a more complicated design)
2-Barr understands the budget constraints of the District and has provided a roughly $5,000 discount in engineering fees for the work associated with Task Order 24B

REDPATH AND COMPANY

December 1, 2021

Terry Jeffery
Interim District Administrator
Riley Purgatory Bluff Creek Watershed District
18681 Lake Drive E.
Chanhassen, Minnesota 55317

Dear Terry:

Enclosed please find the checks and Treasurer's Report for Riley Purgatory Bluff Creek Watershed District for the one month and ten months ending October 31, 2021.

Please examine these statements and if you have any questions or need additional copies, please call me.

Sincerely,

REDPATH AND COMPANY, LTD.

Mark C. Gibbs, CPA
Enclosure

REDPATH AND COMPANY

To The Board of Managers
Riley Purgatory Bluff Creek Watershed District
Chanhassen, Minnesota

Accountant's Opinion

The Riley Purgatory Bluff Creek Watershed District is responsible for the accompanying October 31, 2021 Treasurer's Report in the prescribed form. We have performed a compilation engagement in accordance with the Statements on Standards for Accounting and Review promulgated by the Accounting and Review Services Committee of AICPA. We did not audit or review the Treasurer's Report nor were we required to perform any procedures to verify the accuracy or completeness of the information provided by the Riley Purgatory Bluff Creek Watershed District. Accordingly, we do not express an opinion, a conclusion, nor provide any form of assurance on the Treasurer's Report.

Reporting Process

The Treasurer's Report is presented in a prescribed form mandated by the Board of Managers and is not intended to be a presentation in accordance with accounting principles generally accepted in the United States of America. The reason the Board of Managers mandates a prescribed form instead of GAAP (Generally Accepted Accounting Principles) is this format gives the Board of Managers the financial information they need to make informed decisions as to the finances of the watershed.

GAAP basis reports would require certain reporting formats, adjustments to accrual basis and supplementary schedules to give the Board of Managers information they need, making GAAP reporting on a monthly basis extremely cost prohibitive. An independent auditing firm is retained each year to perform a full audit and issue an audited GAAP basis report. This annual report is submitted to the Minnesota State Auditor, as required by Statute, and to the Board of Water and Soil Resources.

The Treasurer's Report is presented on a modified accrual basis of accounting. Expenditures are accounted for when incurred. For example, payments listed on the Cash Disbursements report are included as expenses in the Treasurer's Report even though the actual payment is made subsequently. Revenues are accounted for on a cash basis and only reflected in the month received.

REDPATH AND COMPANY, LTD.

Redpath and Company, Ltd.

St. Paul, Minnesota
December 1, 2021

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

Treasurers Report

October 31, 2021

REPORT INDEX

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT
Cash Disbursements
October 31, 2021

Accounts Payable:

Check #	Payee	Amount
5764	Chris Adams	$5,000.00
5765	Stewart & Deborah Anderson	3,785.14
5766	Barr Engineering	76,030.85
5767	CenterPoint Energy	100.14
5768	CenturyLink	294.93
5769	City of Chanhassen	21.62
5770	Coverall of the Twin Cities, Inc.	316.76
5771	Jill S. Crafton	1,466.84
5772	ECM Publishers, Inc.	2,689.40
5773	Freshwater Scientific Services	12,500.00
5774	HDR Engineering, Inc.	4,876.87
5775	HealthPartners	5,144.53
5776	Amy Herbert	1,140.00
5777	Olivia R. Holstine	178.13
5778	Iron Mountain	188.05
5779	Jerry's Printing	97.00
5780	Larry Koch	230.88
5781	VOID	-
5782	League of MN Cities Insurance Trust	54.00
5783	Metro Sales, Inc.	256.93
5784	Molnau Trucking, LLC	88,243.39
5785	Nicola Dell5 LP	7,394.86
5786	Principal Life Insurance Company	342.00
5787	Redpath & Company	1,823.30
5788	RMB Environmental Laboratories, Inc.	565.00
5789	Smith Partners	12,417.94
5790	Sunram Construction, Inc.	308,244.59
5791	The Preserve Association	6,529.32
5792	VOID	-
5793	John Krenzke	4,620.09
	Total Accounts Payable:	**$544,552.56**

Payroll Disbursements:

Payroll Processing Fee	200.55
Employee Salaries	36,216.04
Employer Payroll Taxes	2,785.37
Employer Benefits (H.S.A. Match)	1,600.00
Employee Benefit Deductions	(516.04)
Staff Expense Reimbursements	706.12
PERA Match	2,728.70
Total Payroll Disbursements:	**$43,720.74**
VISA - 10/01/21	5,791.05
VISA - 10/18/21	3,224.57

TOTAL DISBURSEMENTS: **$597,288.92**

Memos
The 2021 mileage rate is .56 per mile. The 2020 rate was .575
Old National VISA will be paid on-line.

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT
Fund Performance Analysis - Table 1
October 31, 2021

	2021 Budget	Fund Transfers	2021 Budget	Current Month	Year-to-Date	Year-to Date Percent of Budget
REVENUES						
Plan Implementation Levy	$3,575,000.00	-	$3,575,000.00	-	$1,850,234.25	51.75%
Market Value Credit	-	-	-	32.95	32.95	---
Permit Fees	25,000.00	-	25,000.00	410.00	79,606.83	318.43%
Grant Income	272,580.00	-	272,580.00	-	36,433.00	13.37%
Investment Income	30,000.00	-	30,000.00	83.25	373.62	1.25%
Miscellaneous Income	-	-	-	-	60.84	---
Past Levies	3,204,427.00	-	3,204,427.00	-	-	0.00%
Partner Funds	451,000.00	-	451,000.00	-	2,000.00	0.44%
TOTAL REVENUE	**$7,558,007.00**	-	**$7,558,007.00**	**$526.20**	**$1,968,741.49**	**26.05%**
EXPENDITURES						
Administration						
Audit	$15,000.00	-	$15,000.00	-	$14,400.00	96.00%
Accounting (and Audit)	$31,000.00		31,000.00	2,023.85	29,049.91	93.71%
Advisory Committees	7,000.00	-	7,000.00	-	-	0.00%
Insurance and Bonds	18,000.00	-	18,000.00	54.00	23,898.00	132.77%
Engineering Services	112,000.00	-	112,000.00	9,654.00	106,231.06	94.85%
Legal Services	84,000.00	-	84,000.00	6,226.10	76,648.52	91.25%
Manager Per Diem/Expense	30,000.00	-	30,000.00	2,399.27	24,285.29	80.95%
Dues and Publications	16,000.00	-	16,000.00	-	11,051.00	69.07%
Office Cost	190,000.00	-	190,000.00	15,071.95	122,438.99	64.44%
Permit Review and Inspection	140,000.00	-	140,000.00	15,011.54	184,660.38	131.90%
Permit and Grant Database	-	-	-	-	27,500.00	---
Professional Services	10,000.00	-	10,000.00	-	12,335.50	123.36%
Recording Services	15,000.00	-	15,000.00	1,140.00	12,075.00	80.50%
Staff Cost	802,054.00	-	802,054.00	36,842.61	387,724.19	48.34%
Subtotal	**$1,470,054.00**	-	**$1,470,054.00**	**$88,423.32**	**$1,032,297.84**	**70.22%**
Programs and Projects						
District Wide						
10-year Management Plan	$10,000.00	-	$10,000.00	$99.60	$5,629.87	56.30%
AIS Inspection and early response	85,000.00	-	85,000.00	12,607.94	26,880.83	31.62%
Cost-Share/Stewardship Grant	346,735.00	-	346,735.00	25,665.27	164,522.60	47.45%
Data Collection and Monitoring	193,000.00	-	193,000.00	18,229.82	232,598.36	120.52%
Community Resiliency	111,058.00	-	111,058.00	-	7,596.50	6.84%
Education and Outreach	100,834.00	-	100,834.00	10,537.31	48,456.53	48.06%
Plant Restoration - U of M	61,613.00	-	61,613.00	-	21,650.48	35.14%
Repair and Maintenance Fund *	212,540.00	-	212,540.00	-	570.00	0.27%
Wetland Management*	111,248.00	-	111,248.00	15,917.00	173,747.17	156.18%
Groundwater Conservation*	229,444.00	-	229,444.00	-	450.00	0.20%
Lake Vegetation Implementation	83,083.00	-	83,083.00	-	15,878.13	19.11%
Opportunity Project*	317,480.00	-	317,480.00	-	-	0.00%
Stormwater Ponds - U of M	67,164.00	-	67,164.00	-	36,719.00	54.67%
Hennepin County Chloride Initiative	92,971.00	-	92,971.00	-	4,975.00	5.35%
Lower Minnesota Chloride Cost-Share	217,209.00	-	217,209.00	-	9,618.32	4.43%
Subtotal	**$2,239,379.00**	-	**$2,239,379.00**	**$83,056.94**	**$749,292.79**	**33.46%**
Bluff Creek						
Bluff Creek Tributary*	$7,251.00	-	$7,251.00	$55.00	$172.00	2.37%
Wetland Restoration at Pioneer	$665,285.00		665,285.00	82,324.38	154,221.17	23.18%
Bluff Creek B5 by Galpin	140,000.00	-	140,000.00	-	-	0.00%
Subtotal	**$812,536.00**	-	812,536.00	**$82,379.38**	**$154,393.17**	**19.00%**
Riley Creek						
Lake Riley - Alum Treatment*	$62,885.00	-	$62,885.00	-	-	0.00%
Rice Marsh Lake in-lake phosphorus load	45,636.00	-	45,636.00	924.40	10,744.71	23.54%
Rice Marsh Lake Water Quality Improvement Phase 1	634,147.00	-	634,147.00	144.50	75,110.48	11.84%
Riley Creek Restoration (Reach E and D3)	107,047.00	-	107,047.00	718.00	32,805.24	30.65%
Upper Riley Creek Stabilization	902,025.00	-	902,025.00	-	27,616.56	3.06%
Middle Riley Creek	192,363.00	-	192,363.00	244,472.01	346,201.95	179.97%
Lake Ann Wetland Restoration	50,000.00	-	50,000.00	-	-	0.00%
St. Hubert Water Quality Project	147,063.00	-	147,063.00	-	347,513.19	236.30%
Subtotal	**$2,141,166.00**	**$0.00**	2,141,166.00	**$246,258.91**	**$839,992.13**	**39.23%**
Purgatory Creek						
Purgatory Creek Rec Area- Berm/retention area - feasibility/design	$34,899.00	-	$34,899.00	-	$5,740.75	16.45%
Lotus Lake in-lake phosphorus load control	79,225.00	-	79,225.00	-	-	0.00%
Silver Lake Restoration - Feasibility Phase 1	207,208.00	-	207,208.00	97,170.37	141,323.69	68.20%
Scenic Heights	92,040.00	-	92,040.00	-	2,983.00	3.24%
Hyland Lake in-lake phosphorus load control	20,000.00	-	20,000.00	-	-	0.00%
Duck Lake watershed load	32,120.00	-	32,120.00	-	7,176.00	22.34%
Lotus Lake Kerber Pond	14,380.00		14,380.00		-	0.00%
Duck lake Partnership	235,000.00	-	235,000.00	-	-	0.00%
Subtotal	**$714,872.00**	**$0.00**	$714,872.00	**$97,170.37**	**$157,223.44**	21.99%
Reserve	**$180,000.00**	**$0.00**	180,000.00	-	-	0.00%
TOTAL EXPENDITURE	**$7,558,007.00**	**$0.00**	**$7,558,007.00**	**$597,288.92**	**$2,933,199.37**	**38.81%**
EXCESS REVENUES OVER (UNDER) EXPENDITURES	**$0.00**	**$0.00**	**$0.00**	**($596,762.72)**	**($964,457.88)**	

***Denotes Multi-Year Project - See Table 2 for details**

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT
Muti-Year Project Performance Analysis - Table 2
October 31, 2021

	Total Lifetime Budget	FUNDING SOURCE District funds	Partner Fund	Grants	Current Year Budget	Costs Month End	Costs Year-to-Date	Total Costs to Date	District's Share Current Year	District's Share Future Years
Programs and Projects										
District Wide										
Community Resiliency	**$148,000.00**	$98,000.00	-	50,000.00	$111,058.00	-	$7,596.50	$69,537.57	$75,000.00	60,000.00
Repair and Maintenance Fund	**277,005.00**	277,005.00	-	-	212,540.00	-	570.00	90,035.08	-	20,000.00
Wetland Management	**200,000.00**	200,000.00	-	-	111,248.00	15,917.00	173,747.17	287,499.05	-	70,000.00
Groundwater Conservation	**180,000.00**	180,000.00	-	-	229,444.00	-	450.00	1,005.85	50,000.00	79,000.00
Opportunity Project*	**300,000.00**	300,000.00	-	-	317,480.00	-	-	26,165.29	50,000.00	70,000.00
Stormwater Ponds - U of M	**106,092.00**	64,092.00	42,000.00	-	67,164.00	-	36,719.00	95,646.97	20,000.00	-
Hennepin County Chloride Initiative	**120,800.00**	19,000.00	-	101,800.00	92,971.00	-	4,975.00	32,804.77	-	-
Lower Minnesota Chloride Cost-Share	**217,209.00**	20,000.00	-	197,209.00	217,209.00	-	9,618.32	9,618.32	-	-
Subtotal	**$1,549,106.00**	**$1,158,097.00**	**$42,000.00**	**$349,009.00**	**$1,359,114.00**	**$15,917.00**	**$233,675.99**	**$612,312.90**	**195,000.00**	**299,000.00**
Bluff Creek										
Bluff Creek Tributary*	**$436,750.00**	$386,750.00	$50,000.00	-	$7,251.00	$55.00	$172.00	$391,670.69		
Wetland Restoration at Pioneer	**857,820.00**	450,000.00	-	407,820.00	665,285.00	82,324.38	154,221.17	796,758.33	450,000.00	-
Bluff Creek B5 by Galpin	**614,000.00**	614,000.00			140,000.00	-	-	-	140,000.00	614,000.00
Subtotal	**$1,908,570.00**	**$1,450,750.00**	**$50,000.00**	**$407,820.00**	**$812,536.00**	**82,379.38**	**$154,393.17**	**$1,188,429.02**	**$590,000.00**	**614,000.00**
Riley Creek										
Lake Riley - Alum Treatment 1st dose *	**$560,000.00**	$560,000.00	-	-	$62,885.00	-	-	$512,114.57	-	-
Rice Marsh Lake in-lake phosphorus load	**150,000.00**	150,000.00	-	-	45,636.00	924.00	10,744.31	115,108.96	-	170,000.00
Rice Marsh WQ 1	**300,000.00**	300,000.00	-	-	634,147.00	144.50	75,110.48	90,962.98	350,000.00	-
Riley Creek Restoration (Reach E and D3) *	**2,168,148.00**	1,615,000.00	553,148.00	-	107,046.00	718.00	32,805.24	2,260,662.27	40,000.00	-
Upper Riley Creek Stabilization	**950,000.00**	950,000.00			902,025.00	-	27,616.56	75,591.08	100,000.00	-
Middle Riley Creek	**45,000.00**		45,000.00		192,363.00	244,472.01	346,201.95	346,201.95	-	-
St Hubert	**178,865.00**		65,000.00	113,865.00	147,063.00	-	347,513.21	347,513.21	100,000.00	-
Subtotal	**$4,352,013.00**	**$3,575,000.00**	**$663,148.00**	**$113,865.00**	**$2,091,165.00**	**$246,258.51**	**$839,991.75**	**$3,748,155.02**	**$590,000.00**	**170,000.00**
Purgatory Creek										
Purgatory Creek Rec Area- Berm/retention area - feasibility/design	**$50,000.00**	$50,000.00	-	-	$34,899.00	-	$5,740.75	$20,842.03	-	-
Lotus Lake in-lake phosphorus load control	**345,000.00**	345,000.00	-	-	79,225.00	-	-	265,773.75	-	345,000.00
Silver Lake Restoration Project WQ1	**268,013.00**	268,013.00	-	-	207,208.00	97,170.37	141,323.69	202,128.88	-	-
Scenic Heights	**260,000.00**	165,000.00	45,000.00	50,000.00	92,040.00	-	2,983.00	210,942.75	-	-
Hyland Lake Internal Load	**150,000.00**	130,000.00	20,000.00	-	20,000.00	-	-	128,612.41	20,000.00	150,000.00
Duck Lake watershed load	**220,000.00**	220,000.00	-	-	32,120.00	-	7,176.00	195,055.01	-	-
Subtotal	**$1,293,013.00**	**$1,178,013.00**	**$65,000.00**	**$50,000.00**	**$465,492.00**	**$97,170.37**	**$157,223.44**	**$1,023,354.83**	**$20,000.00**	**495,000.00**
Total Multi-Year Project Costs	**$9,102,702.00**	**$7,361,860.00**	**$820,148.00**	**$920,694.00**	**$4,728,307.00**	**$441,725.26**	**$1,385,284.35**	**$6,572,251.77**	**$1,395,000.00**	**$1,578,000.00**

Riley Purgatory Bluff Creek Watershed District
Balance Sheet
As of October 31, 2021

ASSETS

Current Assets

General Checking-Old National	$2,170,768.05	
Checking-Old National/BMW	23,256.03	
Investments-Standing Cash	3,287,279.68	
Investments-Wells Fargo	747,034.86	
Accrued Investment Interest	7.50	
Due From Other Governments	143,280.00	
Taxes Receivable-Delinquent	34,792.36	
Pre-Paid Expense	31,914.23	
Security Deposits	7,244.00	
Total Current Assets:		**$6,445,576.71**

LIABILITIES AND CAPITAL

Current Liabilities

Accounts Payable	$924,606.99	
Retainage Payable	27,616.74	
Withholding Taxes	669.35	
Permits & Sureties Payable	312,973.25	
Deferred Revenue	34,792.36	
Unearned Revenue	183,153.00	
Total Current Liabilities:		**$1,483,811.69**

Capital

Fund Balance-General	$5,926,222.90	
Net Income	(964,457.88)	
Total Capital		**$4,961,765.02**
Total Liabilities & Capital		**$6,445,576.71**

RILEY PURGTORY BLUFF CREEK WATERSHED DISTRICT
OLD NATIONAL BANK VISA ACTIVITY
October 31, 2021

DATE	PURCHASED FROM	AMOUNT	DESCRIPTION	ACCOUNT #	RECEIPT
10/19/21	General Delivery Services	20.00	Courier Service	10-00-4280	Y
10/21/21	Verizon Wireless	565.84	Monthly Telecommunications	10-00-4240	Y
10/26/21	Randy's Sanitation	95.34	Montly Trash & Recycling	10-00-4220	Y
10/26/21	MN Land Arboretum	105.00	Staff Engagement Tour	10-00-4321	Y
10/26/21	Target	22.04	Office Supplies - Kitchen	10-00-4200	Y
10/26/21	General Delivery Services	25.30	Courier Service	10-00-4280	Y
10/29/21	Menards	78.18	Office Supplies - Packaging	10-00-4200	Y
11/02/21	Holmes Custom	36.51	Embosser	10-00-4200	Y
11/03/21	Intuit	70.00	Monthly Software Subscription	10-00-4203	Y
11/08/21	General Delivery Services	47.20	Courier Service	10-00-4280	Y
11/10/21	Microsoft	147.64	Monthly Software Subscription	10-00-4203	Y
11/10/21	Microsoft	93.96	Monthly Software Subscription	10-00-4203	Y
11/10/21	EB 2021 MAWD Virtual	99.00	MAWD Conference Registration	10-00-4321	Y
11/10/21	EB 2021 MAWD Virtual	99.00	MAWD Conference Registration	10-00-4321	Y
11/10/21	EB 2021 MAWD Virtual	99.00	MAWD Conference Registration	10-00-4321	Y
11/10/21	EB 2021 MAWD Virtual	99.00	MAWD Conference Registration	10-00-4321	Y
11/11/21	Office Max	6.30	Office Supplies - Binder	10-00-4200	Y
11/12/21	EB 2021 MAWD Virtual	99.00	MAWD Conference Registration	10-00-4321	Y
11/12/21	EB 2021 MAWD Virtual	99.00	MAWD Conference Registration	10-00-4321	Y
11/12/21	EB 2021 MAWD Virtual	99.00	MAWD Conference Registration	10-00-4321	Y
11/12/21	EB 2021 MAWD Virtual	99.00	MAWD Conference Registration	10-00-4321	Y
11/12/21	EB 2021 MAWD Virtual	99.00	MAWD Conference Registration	10-00-4321	Y
11/12/21	EB 2021 MAWD Virtual	99.00	MAWD Conference Registration	10-00-4321	Y
11/12/21	EB 2021 MAWD Virtual	99.00	MAWD Conference Registration	10-00-4321	Y
11/13/21	EB 2021 MAWD Virtual	99.00	MAWD Conference Registration	10-00-4321	Y
11/16/21	Lunds & Byerlys	66.73	Meeting Catering	10-00-4205	Y
11/16/21	Fleet Farm	169.99	Field Gear - Boots	10-00-4635	Y
11/16/21	Crumb Gourmet	88.84	Meeting Catering	10-00-4205	Y
11/17/21	BP#9638487Valley View Eden Prairie, MN	73.93	Fuel	10-00-4322	Y
11/21/21	Verizon Wireless	498.46	Monthly Telecommunications	10-00-4240	Y
11/19/21	Target	27.38	Office Supplies - Kitchen	10-00-4200	Y
11/22/21	USPS.COM	9.25	Package Postage	10-00-4280	Y
11/22/21	Adobe Creative Cloud	644.12	Yearly Adobe Subscription	10-00-4203	Y
11/22/21	Adobe Creative Cloud	644.12	Yearly Adobe Subscription	10-00-4203	Y
		$4,724.13			
10/25/21	Sticker Mule Sticker Mule.C NY	44.09	Custom Branded Stickers & Magnets	20-08-4260	Y
10/26/21	PetSmart	29.01	Aquatic Habitat Supplies	20-08-4635	Y
10/26/21	Kwik Trip	71.27	DC Fuel	20-05-4322	Y
10/27/21	Forestery Suppliers, Inc.	687.15	Field Gear - Boots	20-05-4635	Y
10/27/21	Forestery Suppliers, Inc.	304.22	E & O Educational Equipment	20-08-4635	Y
10/28/21	Forestery Suppliers, Inc.	227.70	Field Gear - Boots	20-05-4635	Y
11/01/21	Holiday Station	31.40	DC Fuel	20-05-4322	Y
11/05/21	Frattalone's Eden Prairie	12.89	E & O Equipment - Timer	20-08-4635	Y
11/08/21	Sticker Mule Sticker Mule.C NY	780.98	Custom Branded Stickers & Magnets	20-08-4260	Y
11/12/21	Facebook	8.68	Social Media Advertising	20-08-4260	Y
11/15/21	Forestery Suppliers, Inc.	56.10	E & O - Equipment	20-08-4635	Y
11/16/21	Amazon.com	46.88	Habitat Supplies	20-08-4635	Y
11/18/21	Holiday Station	67.15	DC Fuel	20-05-4322	Y
11/22/21	Esty.com	318.70	Logo Patches	20-08-4260	Y
		$2,686.22	**District-Wide Total**		
		$7,410.35	**GRAND TOTAL**		

See Accountants Compilation Report

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

18681 Lake Drive East
Chanhassen, MN 55317
952-607-6512
www.rpbcwd.org

Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2021-077

Considered at Board of Managers Meeting: December 8, 2021

Received complete: November 3, 2021

Applicant: City of Chanhassen

Representative: WSB, Bill Alms

Project: The applicant proposes drainage improvements, ravine/channel stabilization and regrading, and an outlet replacement at two sites: one located between Golden Court and Mulberry Circle East and the other within Meadow Green Park in Chanhassen, MN.

Location: Chanhassen, Minnesota 55317

Reviewer: Heather Lau, P.E. and Scott Sobiech, P.E., Barr Engineering Co.

Potential Board Exception Action

Manager _____ moved and Manager _____ seconded adoption of the following resolution based on the permit report that follows, the presentation of the matter at the December 8, 2021, meeting of the managers and the managers' findings, as well as the factual findings in the permit report that follows:

Resolved that the exception request from compliance with Rule B, subsection 3.2b, for Permit 2021-077 is approved based on the facts and analysis provided by the RPBCWD engineer below and placed in the record at the December 8, 2021 meeting of the managers, and the managers' findings in the record of the December 8 meeting, and subject to the following conditions: 1. [CONDITION(S)],

Proposed Board Action

Manager _____ moved and Manager _____ seconded adoption of the following resolutions based on the permit report that follows and the presentation of the matter at the December 8, 2021 meeting of the managers:

Resolved that the application for Permit 2021-077 is approved, subject to the conditions and stipulations set forth in the Recommendations section of the attached report;

Resolved that on determination by the RPBCWD administrator that the conditions of approval of the permit have been affirmatively resolved, the RPBCWD president or administrator is authorized and directed to sign and deliver to the applicant, Permit 2021-077 on behalf of RPBCWD.

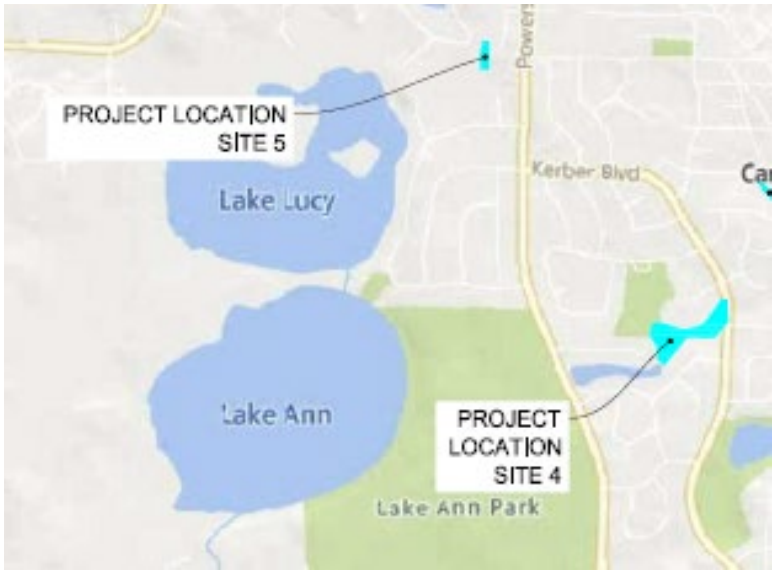
Upon vote, the resolutions were adopted, _____ [VOTE TALLY].

Applicable Rule Conformance Summary

Rule	Issue	Conforms to Rule?	Comments
A	Procedural Requirements	See comment.	See rule-specific permit condition A1 related to demonstrating permission to work on private property.
B	Floodplain Management and Drainage Alterations	See comment.	Applicant is requesting an exception from compensatory storage within +/-1 foot of fill following Rule K.
C	Erosion Control Plan	See comment.	See rule-specific permit condition C1 related to providing name and contact information for the individual responsible for erosion control.
D	Wetland and Creek Buffers	See comment	See rule-specific permit condition D1 related to additional buffer sign and maintenance agreement execution.
G	Waterbody Crossings and Structures	See comment	See rule-specific permit condition G1 related to maintenance agreement execution.
K	Variances and Exceptions	See comment.	See exception request K1 related to improved resource protection due to restoration of erosion.
L	Permit Fee	N/A	Governmental Entity
M	Financial Assurance	N/A	Governmental Entity

Background

The applicant has proposed two separate but related projects, both involving improvement to drainageways to mitigate erosion areas either on city-owned property or on land under a drainage and utility easement. Because the projects encompass very similar scopes of work and are nearby each other, Chanhassen submitted a single application and the work is jointly analyzed in this report, except specific reference is made to one or the other. The two projects/subject locations are referred to as Site 4 and Site 5 based on the applicant nomenclature (see figure). No degradation of the applicability or



scope of the RPBCWD regulatory requirements applicable to the projects is worked by combining them in this report and permitting matter.

Site 4 is located within Meadow Green Park, ultimately discharging to Lotus Lake. The site receives drainage primarily from the surrounding residential areas. The proposed work at Site 4 will take place on City of Chanhassen-owned parcels. Site 4 involves dredging within a pond, regrading and restoring the pond side slopes, replacement of the outlet structure and culvert (see below Photo A), replacement of storm sewer inlets to the pond, and installation of riprap at the outlet to reduce erosion in the downstream channel. The activities at Site 4 also include disturbance of the bank of a watercourse in a high-risk erosion area (HREA). RPBCWD Rule E Dredging does not apply because the pond being dredged is not a public water.

	
Photo A of existing outlet pipe and severe erosion at Site 4	**Photo B** of existing severe erosion at Site 5

Site 5 is located to the southeast of Mulberry Circle East and discharges to a medium value wetland (LU 5-1) which ultimately drains to Lake Lucy. The work at Site 5 is proposed within a drainage and utility easement on a single-family residential parcel (Site 5) and extends onto the adjacent private property, for which property rights are pending. Site 5 involves regrading and restoring an existing eroded channel (see above Photo B), placement of fieldstone riprap, and installation of four rock weirs to reduce erosion in the channel. The proposed project features include ravine/channel stabilization and regrading, placement of riprap and four (4) rock weirs along the Site 5 ravine.

The proposed project does not change drainage patterns nor does it disturb or increase impervious area. The project site information is summarized in the following table.

Project site information

Project Site Information	Site 4 (acres)	Site 5 (acres)	Total Area (acres)
Site Area (Site 4 & 5)	2.1	0.14	2.24
Existing Site Impervious	0.0	0.0	0.0
Post Construction Site Impervious	0.0	0.0	0.0
New (Increase) in Site Impervious Area	0.0	0.0	0.0
Disturbed Impervious surface (acres)	0.0	0.0	0.0
Total Disturbed Area	2.1	0.14	2.24

Exhibits reviewed:

1. Permit application dated September 28, 2021 (Notified applicant on October 11, 2021 that submittal was incomplete, revised materials completing the application received November 3, 2021)
2. Project Plan set dated September 28, 2021 (revised October 15, 2021 and November 3, 2021)
3. Project Narrative dated September 28, 2021
4. Site 4 & 5 Buffer Extents Exhibit received on September 28, 2021
5. Site 4 & 5 Cut and Fill Exhibit received on September 28, 2021 (revised on October 18, 2021, October 19, 2021, November 3, 2021, and November 17, 2021)
6. Site 5 HEC-RAS 100-yr Inundation HWL Exhibits received on September 28, 2021
7. Existing Conditions Site 4 and 5 Channel Erosion Photos received on September 28, 2021
8. MNRAM Desktop Analysis for the Site 5 Manage 2 wetland dated September 28, 2021
9. Site 4 Lotus Lake HydroCAD model received on September 28, 2021 (revised on November 3, 2021)
10. Site 5 Lake Lucy HydroCAD model received on November 3, 2021
11. Existing and Proposed Site 5 HEC-RAS models received October 19, 2021 (revised on November 3, 2021 and November 17, 2021)
12. BWSR Water Erosion Pollution Reduction Estimator for Site 4 & Site 5 received on October 19, 2021
13. Lotus Lake HydroCAD model subwatershed map received on October 19, 2021
14. Wetland Maintenance Agreement received on October 19, 2021 (revised on November 3, 2021 and November 17, 2021)
15. Project Specifications Division 2 received on November 3, 2021
16. No Loss WCA permit application received on November 3, 2021
17. Site 4 and 5 Wetland Buffer Plans received on November 3, 2021 (revised on November 17, 2021)
18. Review Responses dated October 18, 2021 (i.e., the applicant's responses to the October 11th incomplete notice/review comments)
19. Review Responses dated November 2, 2021 (i.e., the applicant's responses to the October 22nd incomplete notice/review comments)

20. Review Responses dated November 16, 2021 (i.e., the applicant's responses to the November 12th review comments)
21. Wetland Conservation Act Notice of Application dated October 28, 2021
22. Wetland Conservation Act Notice of Decision dated November 24, 2021.
23. Exception request via email dated November 30, 2021.

Rule Specific Permit Conditions

Rule A: Procedural Requirements

The work at Site 5 is proposed within a drainage and utility easement on a single-family residential parcel (Site 5) and extends onto the adjacent private property, for which property rights are pending. To conform to RPBCWD Rule A requirements, the following revisions are needed:

A1. A complete permit application includes all required information, exhibits, and fees and must be authorized by all property owners (Rule A, Subsection 2.3). Please provide written documentation demonstrating the remaining necessary property rights to perform the proposed work on private property adjacent to Site 5.

Rule B: Floodplain Management and Drainage Alterations

Because the project will involve the alteration of surface flows and fill in the floodplain below the 100-year flood elevation of the ravines by changing land contours at Site 4 and Site 5, the project must conform to the requirements set forth by the RPBCWD Floodplain Management and Drainage Alterations rule (Rule B, Subsection 2.2) at both sites. The proposed pond dredging activity at Site 4 will not result in any fill being placed below the 100-year flood elevation. However, the work at Site 4 will change the outlet elevation of a stormwater management facility.

Because the project does not propose new or reconstructed structures with low floors, the low floor elevation requirements set forth by Rule B, Subsection 3.1 do not impose requirements on the project.

The summary of the changes to the floodplain storage capacity is provided in the following table. The project meets the requirements for compensatory storage (+/- 1 foot) for any fill placed in the floodplain ate Site 4 by providing a net increase in storage of 183 cubic yards, thus conforming with Rule B, Subsection 3.2. While there is a net increase in floodplain storage at Site 5 of one cubic yard, the compensatory storage for the fill placed in the floodplain at Site 5 is not provided +/- 1 foot in elevation relative to the fill. While the plans demonstrate the proposed activities do not meet the requirement, the sole purpose of the project is to stabilize an eroding ravine and protect water resources. As such, the city has applied for approval under the exception provision of Rule K, Section 2 (see Rule K discussion below).

Fill and Cut computation below existing 100-year flood elevation at Site 4 and Site 5

Site 4				Site 5			
Elevation	Proposed Fill (CY)	Proposed Cut (CY)	Difference (CY)[1]	Elevation	Proposed Fill (CY)	Proposed Cut (CY)	Difference (CY)[1]
942				972	2.1	5.1	-3.0
943	0.1	5.6	-5.5	973	3.4	0.7	***2.7***
944	0.8	12.5	-11.7	974	1.5	0.0	***1.5***
945	3.0	21.5	-18.5	975	3.5	1.2	***2.3***
946	4.3	24.5	-20.2	976	3.0	0.7	***2.2***
947	4.7	26.9	-22.2	977	0.6	0.0	***0.6***
948	4.5	26.9	-22.4	978	1.8	0.4	***1.4***
949	3.8	32.1	-28.3	979	1.5	1.9	-0.5
950	3.8	40.1	-36.3	980	0.0	2.7	-2.7
950.66	1.9	19.9	-18.0	981	0.0	2.0	-2.0
--				982	0.0	1.6	-1.6
--				983	0.2	2.3	-2.1
--				984	0.1	0.0	0.1
--				985	0.1	0.0	0.1
--				986	0.0	0.0	0.0
Total	**26.9**	**210.0**	**-183.1**		**17.6**	**18.6**	**-1.0**
Notes (1) Negative (-) volume indicates net cut (ie. increase in storage)							

Site 4

In order to demonstrate the project is not reasonably likely to have offsite adverse impacts, the applicant provided existing and proposed HydroCAD models for Site 4 comparing existing and proposed flood discharge rates for the 2-, 10-, and 100-year events. The existing and proposed 2-, 10-, and 100-year frequency water surface elevations in the LL-P1.4 Pond and discharges from the pond outlet are summarized in the table below. The modeling indicates the project will result in a slight decrease in the flood level of the pond and have no impact on the flood elevations within the downstream watercourse.

Modeled Location	2-Year Discharge (cfs)		10-Year Discharge (cfs)		100-Year Discharge (cfs)	
	Ex	Prop	Ex	Prop	Ex	Prop
Discharge (cfs)						
Site 4 Pond Outlet	9.5	6.6	60.8	52.8	214.0	206.6
Flood Elevation (ft.)						
Site 4 Pond	953.3	953.1	955.7	955.0	957.5	957.4

By replacing the pond outlet and associated outlet pipe and by stabilizing the discharge into the ravine, the proposed project will mitigate significant, active erosion, thus improving water quality and riparian habitat; and the project will have no impact on groundwater hydrology or stream base flow. Using the BWSR Water Erosion Pollution Reduction Estimator (2.0), the total sediment load reduction from the Site 4 project is approximately 3.63 tons/yr (and 3.62 lbs/yr TP) based on silty soils. Because implementation of the project

will provide a reduction in pollutant loading, the proposed alterations are not likely to cause adverse impacts to water quality. The proposed land-disturbing activity at Site 4 conforms to Rule B, Subsection 3.3.

Site 5

The applicant used the 2-dimensional HEC-RAS modeling software (2D HEC-RAS) from the US Army Corps of Engineers for Site 5 to demonstrate the effect of the project on flood risk, channel stability, and water quality. A comparison of existing and proposed conditions peak velocity, flood elevations, and peak shear stress along the ravine for the 2-, 10-, and 100-year frequency events are summarized in the tables below.

Peak existing and proposed velocity (fps) along ravine at Site 5

Station	2-Year		10-Year		100-Year	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
0+50[1]	5.5	6.2	7.5	8.2	10.1	11.3
0+75	4.2	5.4	5.6	7.2	7.9	10.1
1+00	7.4	5.8	9.6	7.6	13.3	10.7
1+25	8.5	6.0	10.5	7.9	18.5	10.9
1+50	2.9	5.5	4.2	6.9	6.3	9.5
1+75[2]	3.3	2.3	4.3	3.5	5.5	5.6
2+00	2.5	2.5	3.4	3.5	4.5	4.6

1 – downstream extent of project
2 – upstream end of project extents

Peak existing and proposed flood elevation (ft) along ravine at Site 5

Station	2-Year		10-Year		100-Year	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
0+50[1]	971.0	971.0	971.4	971.4	971.5	971.5
0+75	972.5	973.6	972.6	974.0	973.4	974.2
1+00	975.3	976.7	975.4	979.9	980.1	980.0
1+25	983.2	983.2	983.3	983.4	983.6	983.5
1+50	983.4	985.0	985.1	985.1	985.2	985.2
1+75[2]	986.2	986.3	986.3	986.3	986.5	986.5
2+00	986.5	986.5	986.7	986.7	986.9	986.9

1 – downstream end of project extents
2 – upstream end of project extents

Peak existing and proposed shear stress (lb/ft^2) along ravine at Site 5

Station	2-Year		10-Year		100-Year	
	Existing	Proposed	Existing	Proposed	Existing	Proposed
0+50[1]	1.4	0.9	2.0	1.6	3.4	2.9
0+75	0.8	0.8	1.0	1.4	1.8	2.4
1+00	2.5	1.1	4.9	2.1	7.7	4.0
1+25	8.5	4.1	9.0	5.4	8.8	7.5
1+50	0.3	1.2	0.5	3.3	1.1	2.6
1+75[2]	0.6	0.2	1.2	0.5	1.2	1.2
2+00	0.3	0.2	0.6	0.5	0.7	0.8

1 – downstream end of project extents
2 – upstream end of project extents

The engineer concurs with the 2D HEC-RAS modeling of Site 5 submitted by the applicant which shows that the 100-year flood elevations align with the existing flood elevations with the exception of station 0+75, which will be completely contained in the proposed channel section, thus there is no adverse impact to flood risk of adjacent properties.

Shear stress was computing using the 2D HEC-RAS model. Based on the modeling results, the shear stress along the majority of the reach is between 0.5 pounds per square foot (psf) and 5.4 psf for the 10-year storm event resulting in the majority of the reach being designated as a high energy watercourse because the maximum shear stress exceeds 5.0 pounds per square foot (psf). Therefore, erosion along most of the reach must be stabilized with riprap or vegetated riprap. The engineer concurs with the plans showing placement of MnDOT Class III riprap (average size of 9-inch diameter) within the proposed rock weirs and placement of MnDOT Class IV riprap (average size of 12-inch diameter) where velocities exceed those for which Class III riprap will not be sufficient to stabilize the bank. The proposed rock weirs will be able to withstand the post-project shear stress and mitigate the erosion potential.

The total sediment load reduction from the Site 5 project is approximately 1.28 tons/yr and 1.28 lbs/yr TP for silty soils based on BWSR's Water Erosion Pollution Reduction Estimator. Because implementation of the project will provide a reduction in pollutant loading, the proposed alterations are not likely to cause adverse impacts to water quality. The proposed land-disturbing activity at Site 5 conforms to Rule B, Subsection 3.3.

Criteria 3.4 is met because no enclosed structure(s) will be placed within 100-ft of the centerline of the watercourse at Site 4 or Site 5. An erosion prevention and sediment control plan has been provided, per Criteria 3.5, along with the plans and specifications that include notes for controlling terrestrial and aquatic invasive species entering and leaving the site, per Criteria 3.6 for both locations.

The proposed project (Sites 4 and 5) conforms to the floodplain management and drainage alteration requirements of Rule B.

Rule C: Erosion Prevention and Sediment Control

Because the project will involve the alteration and removal of 50 cubic yards or more of earth, the project must conform to the requirements set forth by the RPBCWD Erosion Prevention and Sediment Control rule (Rule C, Subsection 2.1a).

The erosion control plans prepared by WSB includes installation of silt fence, sediment control logs, stabilized construction entrances, daily inspection, staging areas, riprap at flared ends, placement of a minimum of 6 inches of topsoil, decompaction of areas compacted during construction, and retention of native topsoil onsite to the greatest extent possible. To conform to RPBCWD Rule C requirements, the following revisions are needed:

C1. The Applicant must provide the name, address and phone number of the individual who will remain liable to the District for performance under this rule and maintenance of erosion and sediment-

control measures from the time the permitted activities commence until vegetative cover is established.

Rule D: Wetland and Creek Buffers

Because the proposed work triggers a permit under RPBCWD Rule B and involves disturbance of the bank of a watercourse in a high-risk erosion area (HREA) at Site 4, Rule D, Subsections 2.1a and 3.1 require buffers adjacent to the watercourse, with an average width of 50 feet and a minimum width of 30 feet from the thalweg of the watercourse. In addition, there is a delineated medium value wetland (LU 5-1) downgradient from the proposed construction activities at Site 5. Rule D, Subsections 2.1a and 3.1 require buffers on the edge of the wetland that is downgradient from the land-disturbing activities. No disturbance of the wetland is proposed.

Because Site 4 encompasses steep slopes within a HREA, the project must provide for buffers averaging 50 feet wide with minimum width of 30 feet from the thalweg of any watercourse within the HREA and extending 50 feet from each of the upstream and downstream extent of the work (Rule D, Subsections 2.1b, 3.1c and 3.2bvi). The applicant's proposed buffer for the watercourse within the HREA conforms to the Rule D, Subsection 3.2.b.vi requirements (see table below). However, additional buffer signs are needed to improve the delineation of the ends of the buffer 50 feet upstream and downstream of the work and compile with subsection 3.1c.

Using the MNRAM functions and values assessment dated September 28, 2021, the wetland downgradiant from the land-disturbing activities at Site 5, was determined to be medium value. The land-disturbing activities at Site 5 are located upgradient from the medium value wetland requiring a 40-foot average, 20-foot minimum buffer width (Rule D, Subsection 3.2a.iii). Because Subsection 3.2f only requires buffer on property owned by the applicant and the city only has property rights to install buffer within the portion of the project in the drainage easement and plans for the project provide for establishment and maintenance of buffer vegetation within this area, the project conforms to the requirements at Site 5.

The buffer widths are summarized in the following table and demonstrate that the minimum and average buffers widths conform to Rule D, Subsection 3.2.

Wetland Buffer Analysis Summary

Feature	RPBCWD Wetland Value	Required Minimum Width[1] (ft)	Required Average Width[1] (ft)	Provided Minimum Width (ft)	Provided Average Width (ft)
Site 5 Wetland	Medium	20	40	40[2]	40[2]
Site 4 Ravine	NA	30	50	50	50

[1] Average and minimum required buffer width under Rule D, Subsection 3.2.a.
[2] Buffer is limited to the drainage easement where the city has property rights

The plans require revegetating disturbed areas within the proposed buffer with native vegetation, thus conforming with Rule D, Subsection 3.3. A note is included on the plan sheet indicating the project will be

constructed so as to minimize the potential transfer of aquatic invasive species (e.g., zebra mussels, Eurasian watermilfoil, etc.) to the maximum extent possible conforming to Rule D, Subsection 3.6.

The applicant submitted a draft maintenance agreement per Subsection 3.5 of Rule D for review by RPBCWD. The following revisions are needed to conform to the RPBCWD Rule D:

D1. While the plans show the proposed buffer sign locations for both sites, additional buffer signs are required to fully define of the buffer limits 50 feet upstream and downstream of the work within the HREA at Site 4.
D2. Buffer areas and maintenance requirements must be documented in an agreement submitted in draft for form approval by RPBCWD. The agreement must include an exhibit clearly showing the buffer area and monument locations.

Rule G: Waterbody Crossings and Structures

Because the project involves placement of a outfall structure within the bank of a ravine that meets RPBCWD's definition of a watercourse, the land-disturbing activities at Site 5 require conformance with RPBCWD's Waterbody Crossings and Structures Rule (Rule G). Only the criteria in Subsections 3.1, 3.3, 3.5, and 3.7 impose requirements on the work at Site 5. Similarly, the proposed outfall structure at Site 4 requires conformance with the criteria in Subsections 3.1, 3.3,.3.5, and 3.7 because the outfall is in contact with the bank of a watercourse.

The project plans include a note requiring no activity affecting the bed/banks of a protected water be conducted between March 15 and June 15 (Rule G, Subsection 3.7a) and indicate the banks will be immediately stabilized after completion of permitted work and revegetated as soon as growing conditions allow (Rule G, Subsection 3.7b). A note is included on the plan sheet indicating the project will be constructed so as to minimize the potential transfer of aquatic invasive species (e.g., zebra mussels, Eurasian watermilfoil, etc.) to the maximum extent possible (Rule G, Subsection 3.7c).

Site 4

The work at Site 4 provides addresses a need for stabilization of the outfall by reconstructing the pond outlet and installing riprap at the outfall in order to reduce erosion and reduce the pollutant loads leaving the site (Rule G, Subsections 3.1b).

Criteria 3.3 is met because, as shown on Plan Sheet 12, the new flared end section will include a riprap apron and stilling basin to reduce risk of bank erosion (criteria 3.3a). Because there is an upgradient, existing stormwater pond which will reduce peak flows and reduce pollutants, the project conforms with criteria 3.3b and 3.3c.

The applicant's response to comments indicate that a few alternatives were considered during the design process, including replacing in-kind (i.e., placing the outfall at the bottom of the watercourse) or pulling the outfall back from the bank. The RPBCWD engineer concurs in the applicant's determination that pulling the

outfall back from the bank would minimize impacts on the watercourse, minimize floodplain fill, and dissipate the flow energy leaving the outlet with riprap, thus the proposed design at Site 4 represents the minimal impact solution (Rule G, Subsection 3.5a).

In addition, the engineer concurs that ground surrounding the existing outlet pipe and outfall are highly eroded with exposed soils and provides minimal ecological function (see Photo A above). The intended purpose of the outlet and outfall reconstruction is to repair the erosion and reduce pollutants reaching the downstream water resources. The plans show the outfall will be placed slight back from the existing bank, thus minimizing the encroachment (Rule G, Subsection 3.5b).

The Rule B analysis provided above demonstrates the land-disturbing activities at Site 4 comply with the District's floodplain rule as required by Rule G, Subsection 3.5c.

The proposed reconstruction of the pond outlet, outlet pipe, outfall to the watercourse and vegetation reestablishment will help control flows, reduce velocities, and reduce erosion within the channel. The engineer concurs with the modeling submitted by the applicant which shows the total sediment load and phosphorus load reductions from the Site 4 project are approximately 3.63 tons/yr and 3.62 lbs/yr TP, respectively. Because implementation of the plans will provide a reduction in pollutant loading and show that discharges rates are slightly reduced, the proposed alterations are not likely to cause adverse impacts and project conforms to Rule G, Subsection 3.5d.

Rule G, Subsection 3.7d requires compliance with the applicable criteria in Subsections 3.3 of Rule F. Construction drawings submitted show the finished, stabilized side slopes of the Site 4 watercourse being graded to a 3:1 (H:V) below the OHW as required by Rule F, Subsection 3.3a.ii. Drawings confirm the proposed outfall at Site 4 is placed at a location to minimize the horizontal encroachment (Rule F, Subsection 3.3a.iii). The Site 4 project proposes the use of fieldstone riprap for the construction of the rock weirs with an average size of 9 inches in diameter (MNDOT Class III Riprap) to withstand the anticipated erosive force along with a geotextile (MnDOT 3733) and transitional layer of 6 inches of granular bedding consistent with Rule F, Subsections 3.3b.i and 3.3b.iii. Because of the extensive erosion at the site, no vegetation will be covered by the proposed riprap (Rule F, Subsection 3.3b.iv). The plans show the riprap extending to the top of bank (about elevation 949.0), which is lower than the 100-year high water elevation, thus conforming to Subsection 3.3b.v. The purpose of the riprap is to dissipate flow energy and minimize the potential for erosion consistent with Subsection 3.3b.vi.

Site 5

The work at Site 5 addresses a need for stabilization of a watercourse itself by re-grading the channel, placing rock weirs along the watercourse to slow the movement of flows in order to reduce erosion by placing riprap and stabilizing bank slopes, and reducing the pollutant load entering the downstream wetland (Rule G, Subsections 3.1a & b).

The applicant considered the following three alternatives:

- Not undertaking the proposed work – this option was dismissed because it does not resolve the erosion problem.
- Lining the existing channel with turf reinforcing mat (TRM) – this option was dismissed because it would not reduce the steep profile of the slope or provide the energy dissipation needed to reduce the risk of future erosion.
- Grading with rock weirs – The engineer concurs this was the minimal impact solution to provide energy dissipation while maintaining some of the natural aspect of the channel (Rule G, Subsection 3.5a and 3.5b).

Rule G, subsection 3.5c requires the project comply with RPBCWD's floodplain rule. The Rule B analysis provided above demonstrates the land-disturbing activities at Site 5 comply with all criteria in district's floodplain rule except that compensatory storage is not provided within +/- 1 foot in elevation relative to the fill for which the project qualifies for an exception under Rule K (see Rule K discussion below).

Modeling provided by the applicant indicates the proposed grading and rock weirs at Site 5 will help control flows and velocities, and reduce erosion within the channel. The engineer concurs with the modeling submitted by the applicant which shows the total sediment and phosphorus load reduction of approximately 1.28 tons/yr and 1.28 lbs/yr TP, respectively. Because implementation of the project will provide a reduction in pollutant loading and the applicant has demonstrated that discharges rates are not increased, the proposed alterations are not likely to cause adverse impacts and project conforms to Rule G, Subsection 3.5d.

Rule G, Subsection 3.7d requires compliance with the applicable criteria in subsections 3.3 of Rule F. The applicant is proposing to use a MNDOT native seed mix to restore the channel bottom and side slopes between the rock weirs. Construction drawings submitted show the finished, stabilized side slopes of the Site 5 ravine being steeper than 3:1 below the OHW, contrary to Rule F, Subsection 3.3a (ii). Site topography indicates the existing side slopes within the channel range from 1:1 to 2:1. Due to these steeper slopes, 2:1 side slopes are necessary to match existing slopes while minimizing the area of disturbance. In order to support the proposed 2:1 side slopes, the plans have been certified by a licensed engineer, Bill Alms, for continued stability. Drawings confirm the proposed rock weirs at Site 5 will follow the existing alignment of the watercourse (Rule F, Subsection 3.3a (iii)). The Site 5 project proposes the use of fieldstone riprap for the construction of the rock weirs with an average size of 9 inches in diameter (MNDOT Class III Riprap) and an average size of 12 inches in diameter (MNDOT Class IV Riprap) where velocities exceed 10 feet per second.

Rule G, Subsection 5 requires maintenance of structures placed in contact with the bed and bank of a regulated resource. The proposed outfall at Site 4 will be constructed on the City of Chanhassen-owned property, and most of work at Site 5 is within a drainage easement. The applicant provided a draft maintenance agreement covering the maintenance of the outfall at Site 4 and the rock weirs at site 5.

To conform to the RPBCWD Rule G the following revisions are needed:

G1. The maintenance agreement must be executed by the city after approval by RPBCWD and prior to release of the permit to undertake the proposed land-disturbing activities.

Rule J: Stormwater Management

Because the proposed land disturbing activities will not result in any new or reconstructed impervious surface and do not materially alter the stormwater flows at either site's boundaries, the projects are exempt from Rule (Rule J, Subsection 2.2e).

Rule K: Variances and Exceptions

The project results in a net increase in storage below the 100-year flood elevation at each of Site 4 and Site 5. However, the volumes at 1-foot increments for Site 5 do not meet the requirements of Rule B, subsection 3.2a's requirement that compensatory storage volume must be provided +/- 1 foot in elevation relative to the fill. While the plans demonstrate the proposed activities do not meet the requirement, the project design provides stabilization of the eroding ravine. As such, the applicant has requested that RPBCWD grant an exception to the criterion, as the project provides better natural resource protection and enhancement (Rule K, Section 2). The engineer finds that:

- All land-disturbing activities at Site 5 are proposed to be undertaken to stabilize a severely eroded ravine and prevent further degradation of the downstream medium-value wetland. The design restores the eroded channel bottom while maintaining relatively the same cross section at each station to help provide a more uniform stabilized channel.
- The project will fill lower portions of the channel to reduce watercourse slope and address steep side slopes. While it is not compliant with Rule B, subsection 3.2a, reducing the channel slope will help minimize the potential for future erosion as will the restoration with deep rooted native vegetation. It is not possible to flatten the channel slope without filling the lower portion of the eroded channel and shifting flood storage elevations.
- The proposed design provides an overall net increase in floodplain storage of 1 cubic yard, conveys the 100-year flow within the proposed channel cross section, minimizes the site disturbance, and minimizes tree removals.

Because the proposed channel regrading provides for better natural resource protection than maintenance of existing flood-storage elevations and regrading increases the overall flood-storage volume available from existing conditions, the RPBCWD engineer finds that there is ample factual and analytical basis for a determination by the managers that an exception is warranted from compliance with Rule B, subsection 3.2b.

Applicable General Requirements:

1. The RPBCWD Administrator and Engineer shall be notified at least three days prior to commencement of work.
2. Construction shall be consistent with the plans and specifications approved by the District as a part of the permitting process. The date of the approved plans and specifications is listed on the permit.

3. Construction must be consistent with the plans, specifications, and models that were submitted by the applicant that were the basis of permit approval. The date(s) of the approved plans, specifications, and modeling are listed on the permit. The grant of the permit does not in any way relieve the permittee, its engineer, or other professional consultants of responsibility for the permitted work.
4. The grant of the permit does not relieve the permittee of any responsibility to obtain approval of any other regulatory body with authority.
5. The issuance of this permit does not convey any rights to either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
6. In all cases where the doing by the permittee of anything authorized by this permit involves the taking, using or damaging of any property, rights or interests of any other person or persons, or of any publicly owned lands or improvements or interests, the permittee, before proceeding therewith, must acquire all necessary property rights and interest.
7. RPBCWD's determination to issue this permit was made in reliance on the information provided by the applicant. Any substantive change in the work affecting the nature and extent of applicability of RPBCWD regulatory requirements or substantive changes in the methods or means of compliance with RPBCWD regulatory requirements must be the subject of an application for a permit modification to the RPBCWD.
8. If the conditions herein are met and the permit is issued by RPBCWD, the applicant, by accepting the permit, grants access to the site of the work at all reasonable times during and after construction to authorized representatives of the RPBCWD for inspection of the work.

Findings

1. The proposed project includes the information necessary, plan sheets and erosion control plan for review.
2. The proposed project will conform to Rules A, C, D and G if the Rule Specific Permit Conditions listed above are met. The project will conform to the requirement of Rule B should an exception from compliance with Rule B, subsection 3.2a be approved.

Recommendation:

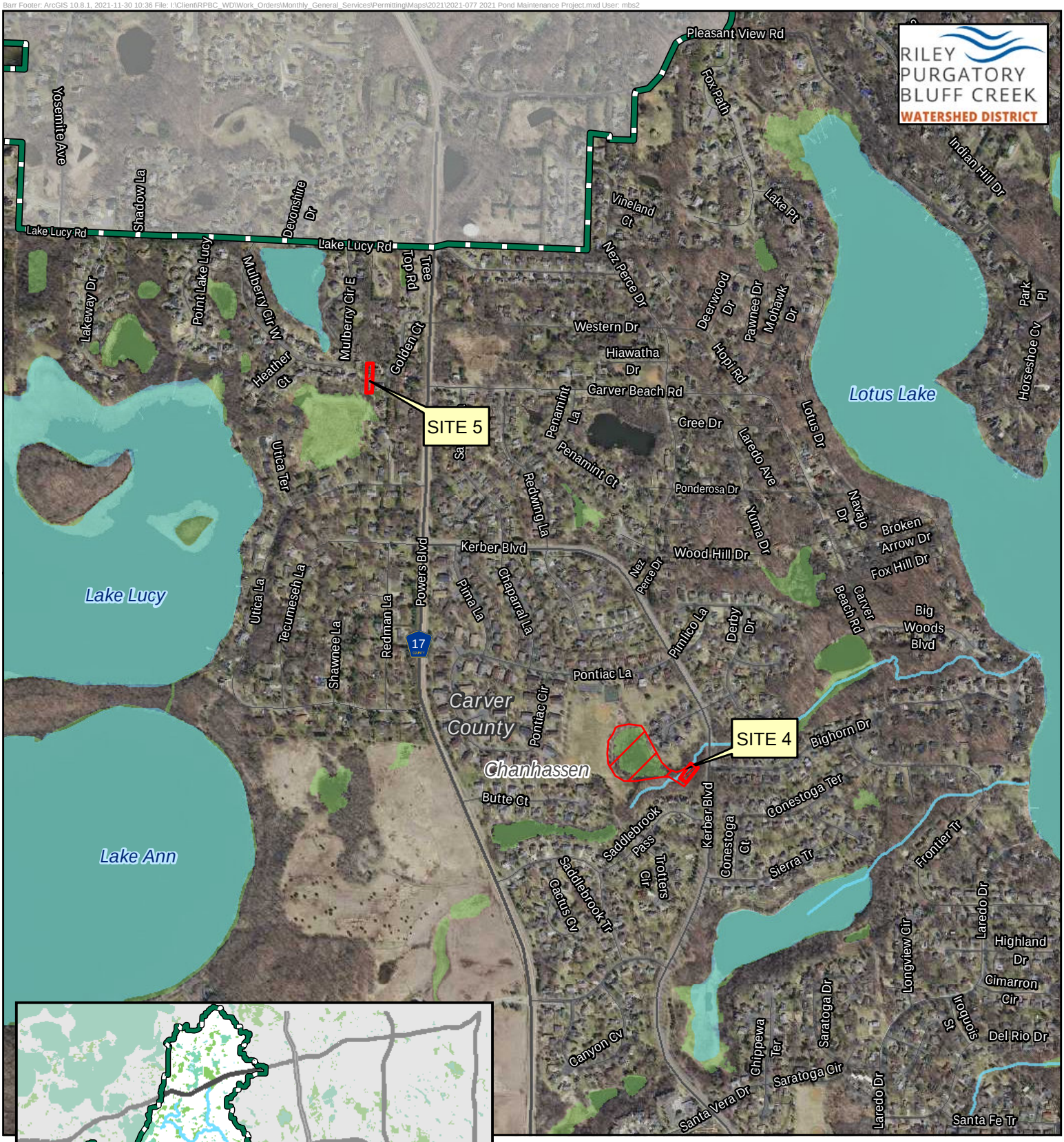
Approval of the permit contingent upon:

1. The applicant providing the name and contact information of the general contractor responsible for the site.
2. The applicant providing written documentation demonstrating the necessary property rights and permissions to perform the proposed work.
3. Receipt of updated drawings showing additional buffer signs to improve the definition of the buffer ends 50 feet upstream and downstream of the work within the HREA at Site 4.

4. Buffer areas and waterbody structure maintenance requirements must be documented in an agreement with RPBCWD. The draft agreement exhibit must be updated to show the full upstream and downstream extents of the buffer at Site 4.

By accepting the permit, when issued, the applicant agrees to the following stipulations:

1. Continued compliance with General Requirements.
2. Per Rule C, Subsection 3.3 the permit holder will be responsible for the inspection, maintenance and effectiveness of all erosion prevention and sediment control facilities, features and techniques. The permittee must inspect all erosion prevention and sediment control facilities and soil stabilization measures to ensure integrity and effectiveness until final site stabilization.
3. Per Rule D, Subsection 3.4.a. the plans and specifications must identify the installation date, which must be set to ensure protection of buffer area during and after land-disturbing activities. This information is required to be submitted by the contractor once the contractor has been determined.



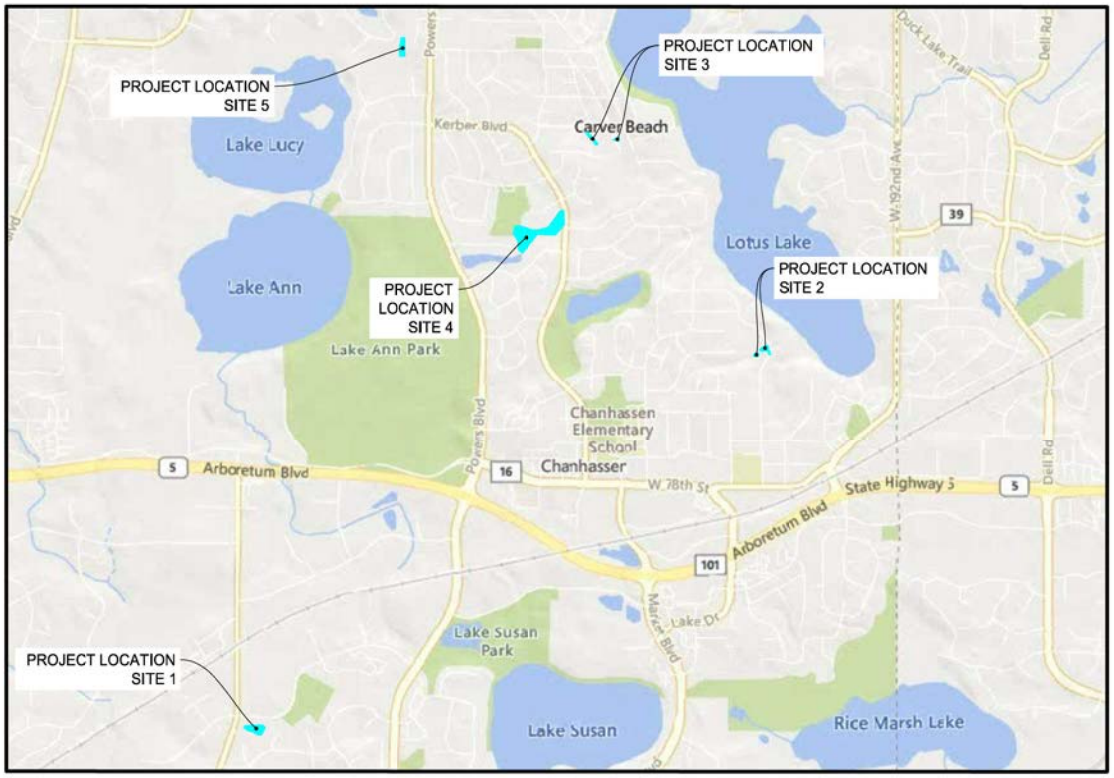
Permit Location Map

RAVINE 4 & 5 STABILIZATION
Permit 2021-077
Riley Purgatory Bluff Creek
Watershed District

2021 POND MAINTENANCE

CITY OF CHANHASSEN

CITY PROJECT NO. 21-13



PROJECT LOCATION MAP

N

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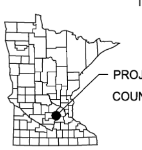
SCALE IN FEET

EXCAVATION NOTICE SYSTEM

A CALL TO GOPHER STATE ONE (651-454-0002) IS REQUIRED A MINIMUM OF 48 HOURS PRIOR TO PERFORMING ANY EXCAVATION.



PROJECT LOCATION

COUNTY: CARVER

UTILITY INFORMATION

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

GOPHER ONE CALL TICKET NUMBER: 210220114, 210220117, 210220120

PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY

GOVERNING SPECIFICATIONS

THE 2018 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION", THE 2018 EDITION OF THE CITY ENGINEERS ASSOCIATION OF MINNESOTA "STANDARD SPECIFICATIONS", AND THE CITY OF CHANHASSEN STANDARD SPECIFICATIONS AND DETAIL PLATES SHALL GOVERN.

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

PLAN SET INDEX

THIS PLAN SET CONTAINS 15 SHEETS

THIS PLAN SET HAS BEEN PREPARED FOR:

CITY OF CHANHASSEN
7700 MARKET BOULEVARD
CHANHASSEN, MN 55317
(952) 227-1100

ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.

wsb

I HEREBY CERTIFY THAT THIS PLAN 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.

WILLIAM C. ALMS, P.E.

DATE: 10/07/2021 LICENSE NUMBER: 54301

WSB PROJ. NO. 017429-000

SHEET 1 OF 15

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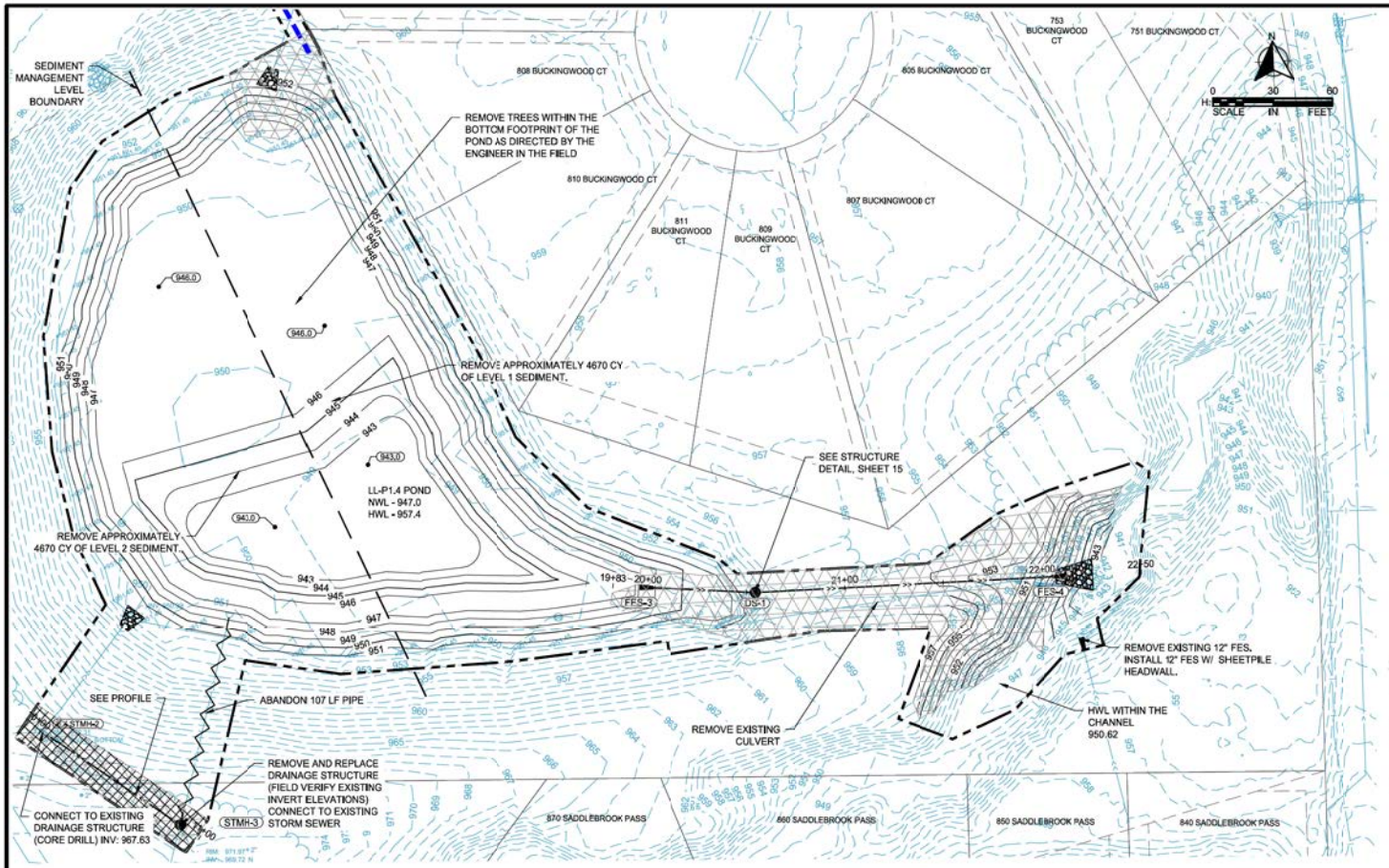
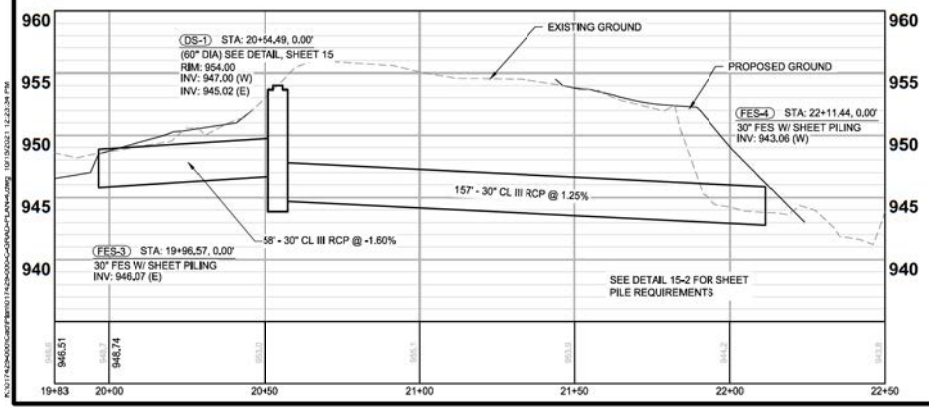
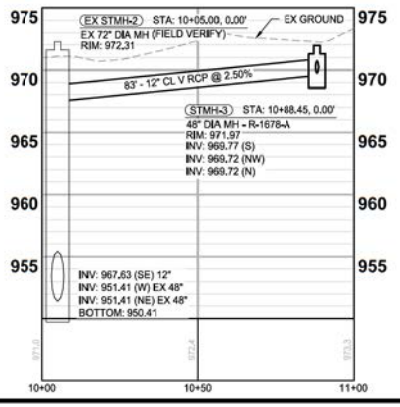






LOCATION

LEGEND:

- CONSTRUCTION LIMITS
- ACCESS ROUTE
- FIELDSTONE BOULDER TOE STABILIZATION
- PROPERTY LINE
- DRAINAGE AND UTILITY EASEMENT (PER PLAT)
- EASEMENT BY OTHER DOCUMENT
- EASEMENT CENTERLINE
- UNDERLYING LOT LINE
- GAS LINE
- FIBER OPTION LINE
- ELECTRICAL LINE
- SANITARY SEWER PIPE
- STORM SEWER PIPE
- DRAINTILE PIPE
- WATERMAIN PIPE
- CONTOUR - MAJOR - EXISTING
- CONTOUR - MINOR - EXISTING
- CONTOUR - MAJOR - PROPOSED
- CONTOUR - MINOR - PROPOSED
- CATCH BASIN
- STORM SEWER MANHOLE
- SANITARY SEWER MANHOLE
- FLARED END SECTION
- ROCK WEIR
- CLEAR AND GRUB

GENERAL CONSTRUCTION NOTES

1. CONTRACTOR RESPONSIBLE FOR THE DAMAGE TO STREETS, PARKING LOTS, CONCRETE CURB AND GUTTER, TRAIL, AND TREES NOT SHOWN FOR REMOVAL.
2. AT A MINIMUM, DAILY STREET SWEEPING REQUIRED DURING HAULING OPERATIONS, MORE OFTEN AS NEEDED OR DIRECTED BY ENGINEER.
3. ALL STOCKPILES MUST HAVE DOWN GRADIENT PERIMETER SEDIMENT CONTROL IMPLEMENTED AND MAINTAINED AT ALL TIMES. STOCKPILES TO RECEIVE TEMPORARY STABILIZATION IF UNWORKED FOR 7 DAYS
4. DEWATERING/DEICING TO TAKE PLACE PRIOR TO EXCAVATION. ICE IS TO BE STOCKPILED ON SITE AND PUT BACK IN POND FOLLOWING THE EXCAVATION. DEWATERING PLANS MUST BE SUBMITTED AND APPROVED BY THE PROJECT ENGINEER 10 DAYS PRIOR TO PUMPING. PLANS MUST INCLUDE OPERATIONS FOR PREVENTING THE DISCHARGE OF TURBID WATER, AND MUST INCLUDE METHODS FOR CONTROLLING EROSION AND SCOUR.
5. CONTRACTOR SHALL PERFORM ALL DEWATERING AND EXCAVATION ONSITE AND OFF OF ROADWAY, AND LOAD AND HAUL OUT USING ACCESS ROUTE.
6. CONTRACTOR TO GRADE AROUND EXISTING STORM SEWER STRUCTURES AS DIRECTED BY THE ENGINEER.
7. CONTRACTOR TO COORDINATE ACCESS LIMITS WITH THE ENGINEER IN THE FIELD.
8. EXISTING POND CONTOURS DEVELOPED FROM PRE-DESIGN SURVEY.
9. VEGETATION AND TREES LESS THAN 18" IN DIAMETER REMOVED FOR ACCESS OR IN AREA AS SHOWN ON THE PLANS WILL BE PAID FOR BY THE ACRE. ALL TREES REMOVED 18" IN DIAMETER OR LARGER WILL BE PAID FOR BY EACH WHERE SHOWN ON THE PLANS AND/OR WHERE DIRECTED BY THE ENGINEER.
10. CONTRACTOR SHALL SUPPLY CITY WITH TRAFFIC CONTROL AND STAGING PLAN PRIOR TO ANY CONSTRUCTION FOR APPROVAL.
11. WORK ASSOCIATED WITH PROTECTING AND/OR REMOVING AND REINSTALLING FENCES, STREET SIGNS, LAWN IRRIGATION SYSTEMS AND OTHER ITEMS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

wsb

SCALE:	DESIGN BY:
AS SHOWN	KJF
PLAN BY:	CHECK BY:
CKJ	WCA

REVISIONS

NO.	DATE	DESCRIPTION

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

WILLIAM C. ALMS, P.E. LIC. NO. 54301

DATE: 10/07/2021

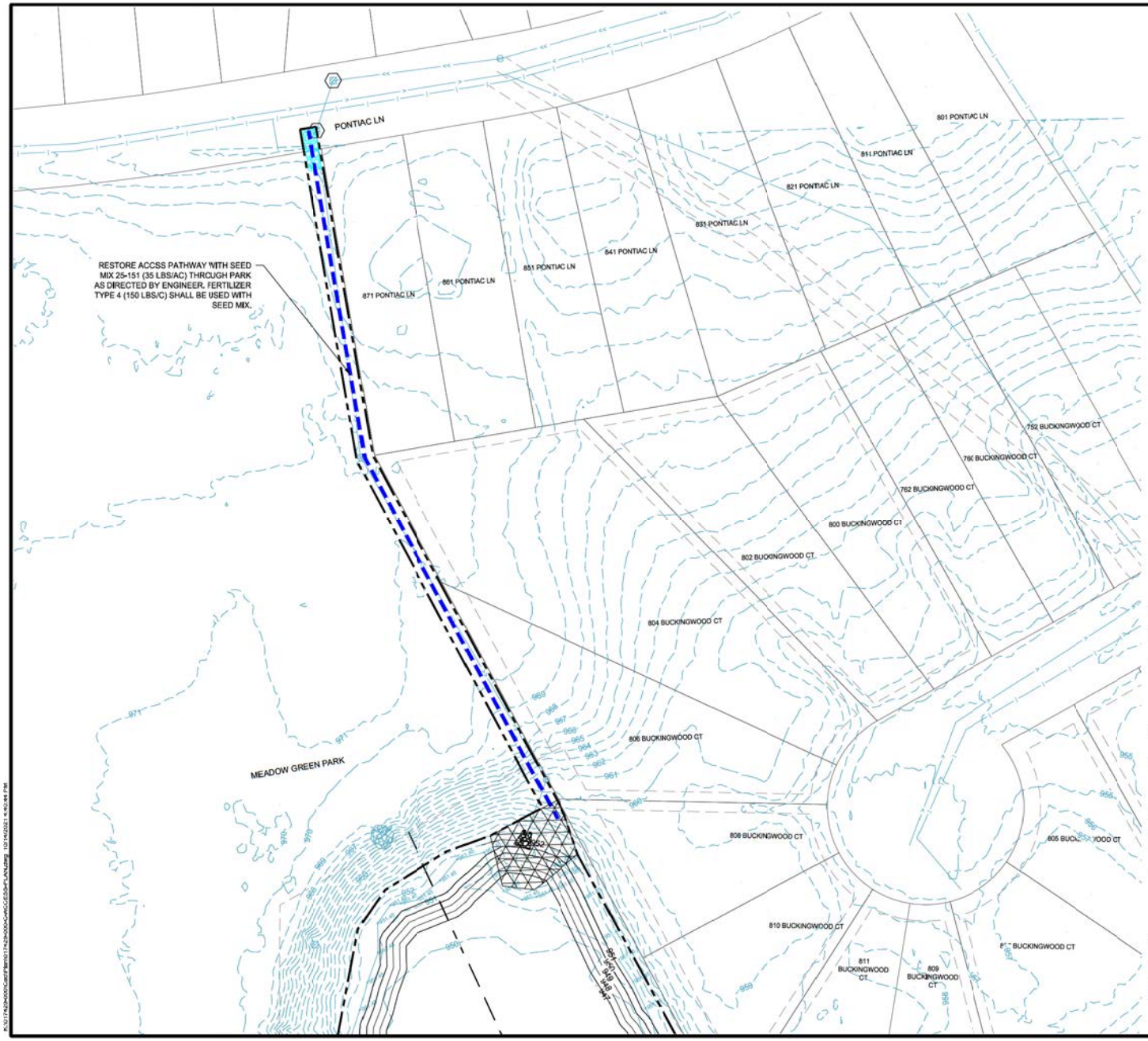
GRADING PLAN SITE 4

2021 POND MAINTENANCE PROJECT
CITY OF CHANHASSEN

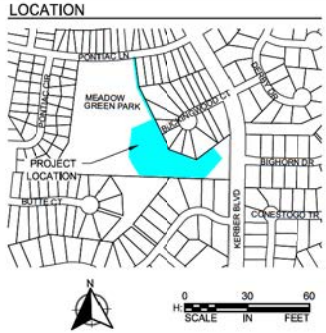
CLIENT PROJECT NO.
21-13

WSB PROJECT NO.
017429-000

SHEET
5 OF 15



LOCATION



LEGEND:

- CONSTRUCTION LIMITS
- ACCESS ROUTE
- FIELDSTONE BOULDER TOE STABILIZATION
- PROPERTY LINE
- DRAINAGE AND UTILITY EASEMENT (PER PLAT)
- EASEMENT BY OTHER DOCUMENT
- EASEMENT CENTERLINE
- UNDERLYING LOT LINE
- GAS LINE
- FIBER OPTION LINE
- ELECTRICAL LINE
- SANITARY SEWER PIPE
- STORM SEWER PIPE
- DRAINTILE PIPE
- WATERMAIN PIPE
- CONTOUR - MAJOR - EXISTING
- CONTOUR - MINOR - EXISTING
- CONTOUR - MAJOR - PROPOSED
- CONTOUR - MINOR - PROPOSED
- CATCH BASIN
- STORM SEWER MANHOLE
- SANITARY SEWER MANHOLE
- FLARED END SECTION
- ROCK WEIR
- CLEAR AND GRUB

GENERAL CONSTRUCTION NOTES

1. FOR ALL RESTORATION PERFORMED PRIOR TO APRIL 15, RESTORE ALL DISTURBED AREAS WITH OATS COVER CROP (MNDOT SEED MIX 21-111, 100 LBS/AC).
2. FOR RESTORATION PERFORMED AFTER APRIL 15, RESTORE ALL POND EDGES AND WOODED AREAS WHERE DISTURBED OR AS DIRECTED BY ENGINEER IN FIELD WITH TYPE 33-261 SEED (35 LBS/AC) OR TYPE 25-151 (120 LBS/AC) AS SHOWN IN PLANS. TYPE 21-111 SEED (100 LBS/AC) AND CATEGORY 3N EROSION CONTROL BLANKET SHALL BE INSTALLED ALONG POND EDGES, BUFFERS, AND NON-MOWABLE SLOPES AS DIRECTED BY THE ENGINEER IN THE FIELD.
3. ALL SOILS DISTURBED DURING CONSTRUCTION ACTIVITIES WILL BE STABILIZED FOLLOWING SEED MIXES, FERTILIZER, AND STABILIZING COVER OUTLINED WITHIN THESE PLANS.
4. IN THE EVENT THAT RESTORATION CANNOT BE IMPLEMENTED WITHIN 7 DAYS AFTER CONSTRUCTION ACTIVITY IN THE DISTURBED AREA HAS CEASED, TEMPORARY EROSION STABILIZATION BMPS (I.E. HYDRO MULCH 3884.B.2) MUST BE SCHEDULED TO OCCUR WITHIN THAT 7 DAY TIME FRAME.
5. CONTRACTOR RESPONSIBLE FOR THE DAMAGE TO STREETS, PARKING LOTS, CONCRETE CURB AND GUTTER, AND TRAIL.
6. DAILY STREET SWEEPING REQUIRED DURING HAULING OPERATIONS.
7. ALL STOCKPILES MUST HAVE DOWN GRADIENT PERIMETER SEDIMENT CONTROL IMPLEMENTED AND MAINTAINED AT ALL TIMES. STOCKPILES TO RECEIVE TEMPORARY STABILIZATION IF UNWORKED FOR 7 DAYS
8. DEWATERING/DEICING TO TAKE PLACE PRIOR TO EXCAVATION. ICE IS TO BE STOCKPILED ON SITE AND PUT BACK IN POND FOLLOWING THE EXCAVATION. DEWATERING PLANS MUST BE SUBMITTED AND APPROVED BY THE PROJECT ENGINEER 10 DAYS PRIOR TO PUMPING. PLANS MUST INCLUDE OPERATIONS FOR PREVENTING THE DISCHARGE OF TURBID WATER, AND MUST INCLUDE METHODS FOR CONTROLLING EROSION AND SCOUR.
9. CONTRACTOR SHALL PERFORM ALL DEWATERING AND EXCAVATION ONSITE AND OFF OF ROADWAY, AND LOAD AND HAUL OUT USING ACCESS ROUTE.
10. CONTRACTOR TO GRADE AROUND EXISTING STORM SEWER STRUCTURES AS DIRECTED BY THE ENGINEER.
11. CONTRACTOR TO COORDINATE ACCESS LIMITS WITH THE ENGINEER IN THE FIELD.
12. EXISTING POND CONTOURS DEVELOPED FROM PRE-DESIGN SURVEY.

wsb

SCALE:	DESIGN BY:
AS SHOWN	KJF
PLAN BY:	CHECK BY:
CKJ	WCA

REVISIONS

NO.	DATE	DESCRIPTION

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

WILLIAM C. ALMS, P.E. LIC. NO. 54301

DATE: 10/07/2021

ACCESS PLAN

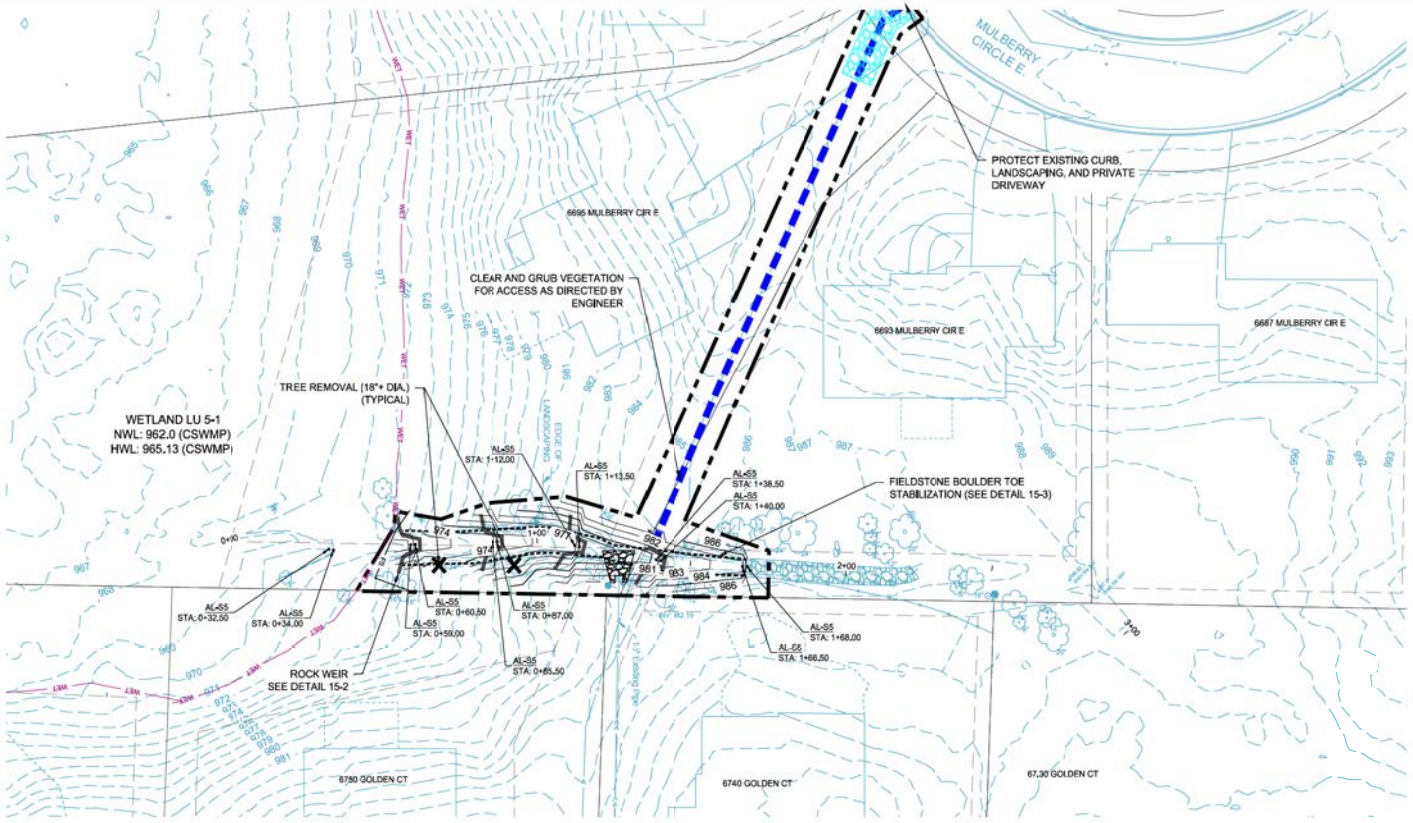
SITE 4

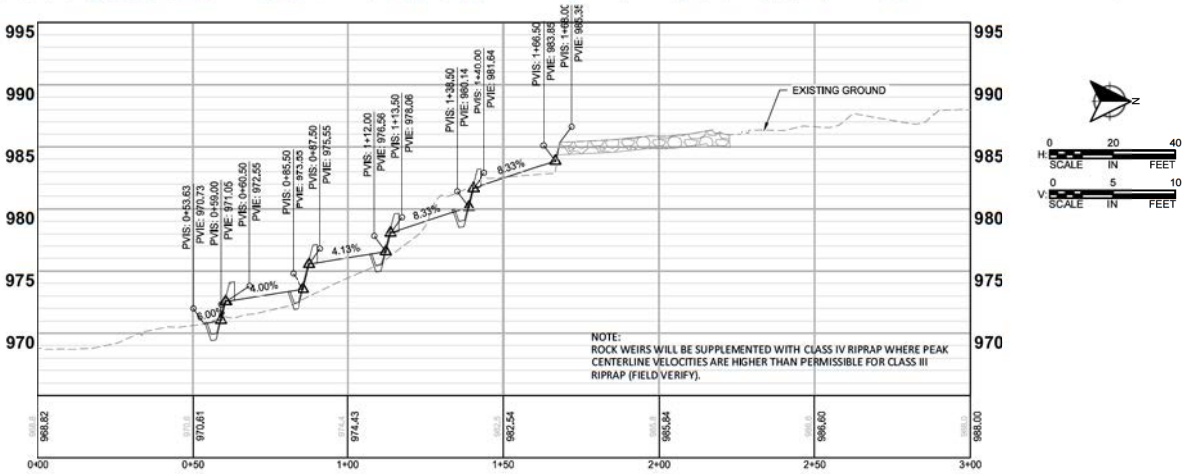
2021 POND MAINTENANCE PROJECT
CITY OF CHANHASSEN

CLIENT PROJECT NO.
21-13

WSB PROJECT NO.
017429-000

SHEET
6 OF 15





LOCATION

LEGEND:

- CONSTRUCTION LIMITS
- ACCESS ROUTE
- FIELDSTONE BOULDER TOE STABILIZATION
- PROPERTY LINE
- DRAINAGE AND UTILITY EASEMENT (PER PLAT)
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- CATCH BASIN
- STORM SEWER MANHOLE
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- FLARED END SECTION
- ROCK WEIR
- CLEAR AND GRUB

GENERAL CONSTRUCTION NOTES

1. CONTRACTOR RESPONSIBLE FOR THE DAMAGE TO STREETS, PARKING LOTS, CONCRETE CURB AND GUTTER, TRAIL, AND TREES NOT SHOWN TO BE REMOVED.
2. AT A MINIMUM, DAILY STREET SWEEPING REQUIRED DURING HAULING OPERATIONS, OR MORE AS NEEDED OR DIRECTED BY ENGINEER.
3. ALL STOCKPILES MUST HAVE DOWN GRADIENT PERIMETER SEDIMENT CONTROL IMPLEMENTED AND MAINTAINED AT ALL TIMES. STOCKPILES TO RECEIVE TEMPORARY STABILIZATION F UNWORKED FOR 7 DAYS
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6. CONTRACTOR TO GRADE AROUND EXISTING STORM SEWER STRUCTURES AS DIRECTED BY THE ENGINEER.
7. CONTRACTOR TO COORDINATE ACCESS LIMITS WITH THE ENGINEER IN THE FIELD.
8. EXISTING POND CONTOURS DEVELOPED FROM PRE-DESIGN SURVEY.
9. VEGETATION AND TREES LESS THAN 12" IN DIAMETER REMOVED FOR ACCESS OR IN AREA AS SHOWN ON THE PLANS WILL BE PAID FOR BY THE ACRE. ALL TREES REMOVED 12" IN DIAMETER OR LARGER WILL BE PAID FOR BY EACH WHERE SHOWN ON THE PLANS AND/OR WHERE DIRECTED BY THE ENGINEER.
10. THE CONTRACTOR SHALL SUPPLY THE CITY WITH TRAFFIC CONTROL AND STAGING PLANS PRIOR TO ANY CONSTRUCTION FOR CITY APPROVAL.
11. WORK ASSOCIATED WITH PROTECTING AND/OR REMOVING AND REINSTALLING FENCES, STREET SIGNS, LAWN IRRIGATION SYSTEMS AND OTHER ITEMS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

wsb

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AS SHOWN	KJF
PLAN BY:	CHECK BY:
CKJ	WCA

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WILLIAM C. ALMS, P.E. LIC. NO. 54301

DATE: 10/07/2021

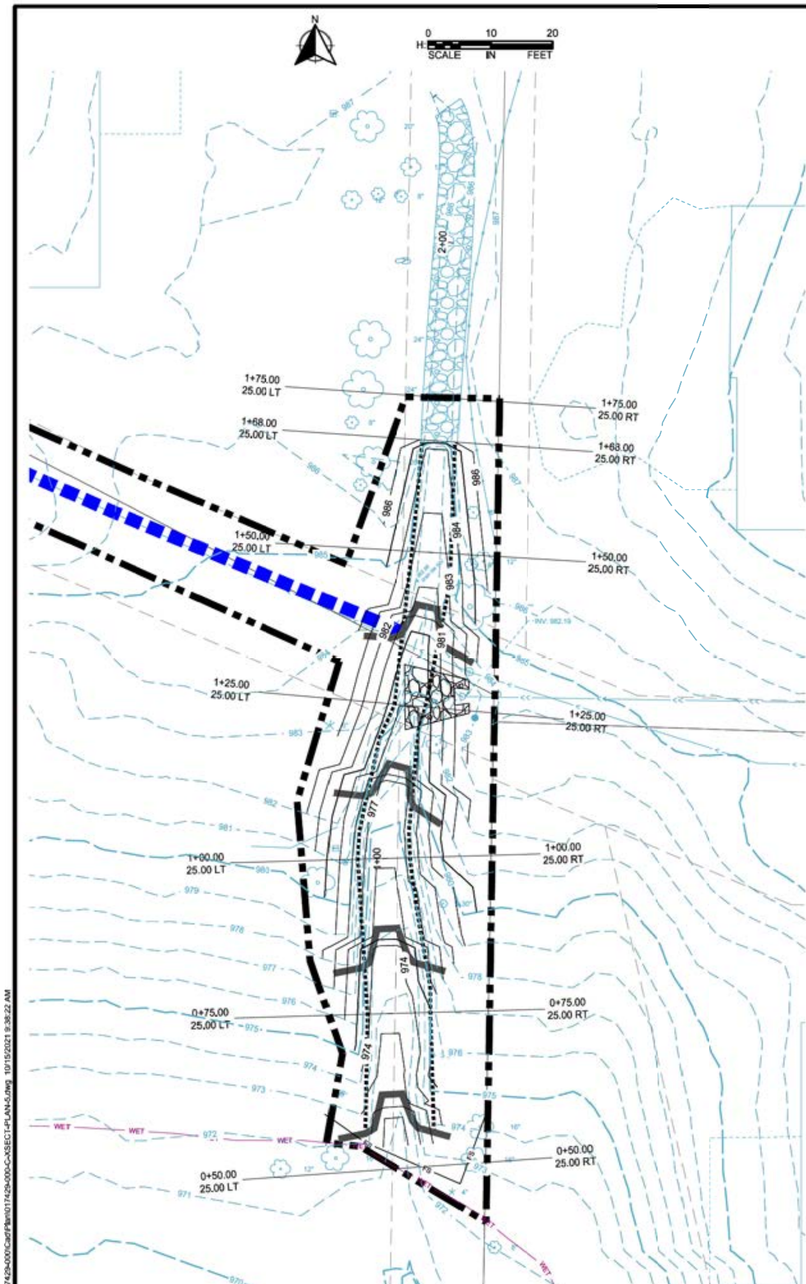
GRADING PLAN SITE 5

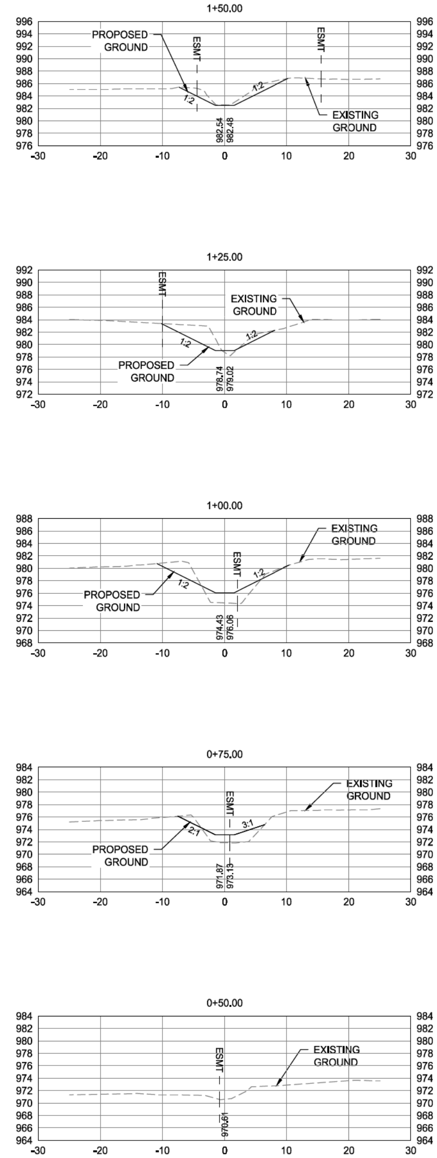
2021 POND MAINTENANCE PROJECT CITY OF CHANHASSEN

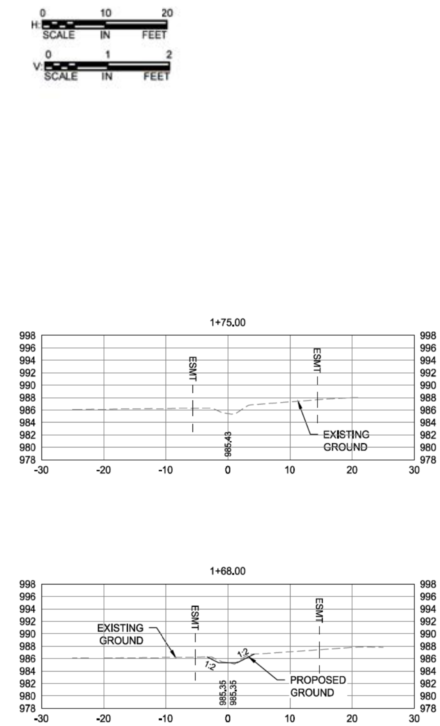
CLIENT PROJECT NO. 21-13

WSB PROJECT NO. 017429-000

SHEET 7 OF 15







wsb

SCALE: AS SHOWN | DESIGN BY: KJF
PLAN BY: CKJ | CHECK BY: WCA

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WILLIAM C. ALMS, P.E.

DATE: 10/07/2021 LIC. NO.: 54301

CROSS SECTIONS SITE 5

2021 POND MAINTENANCE PROJECT
CITY OF CHANHASSEN

CLIENT PROJECT NO. 21-13

WSB PROJECT NO. 017429-000

SHEET 8 OF 15

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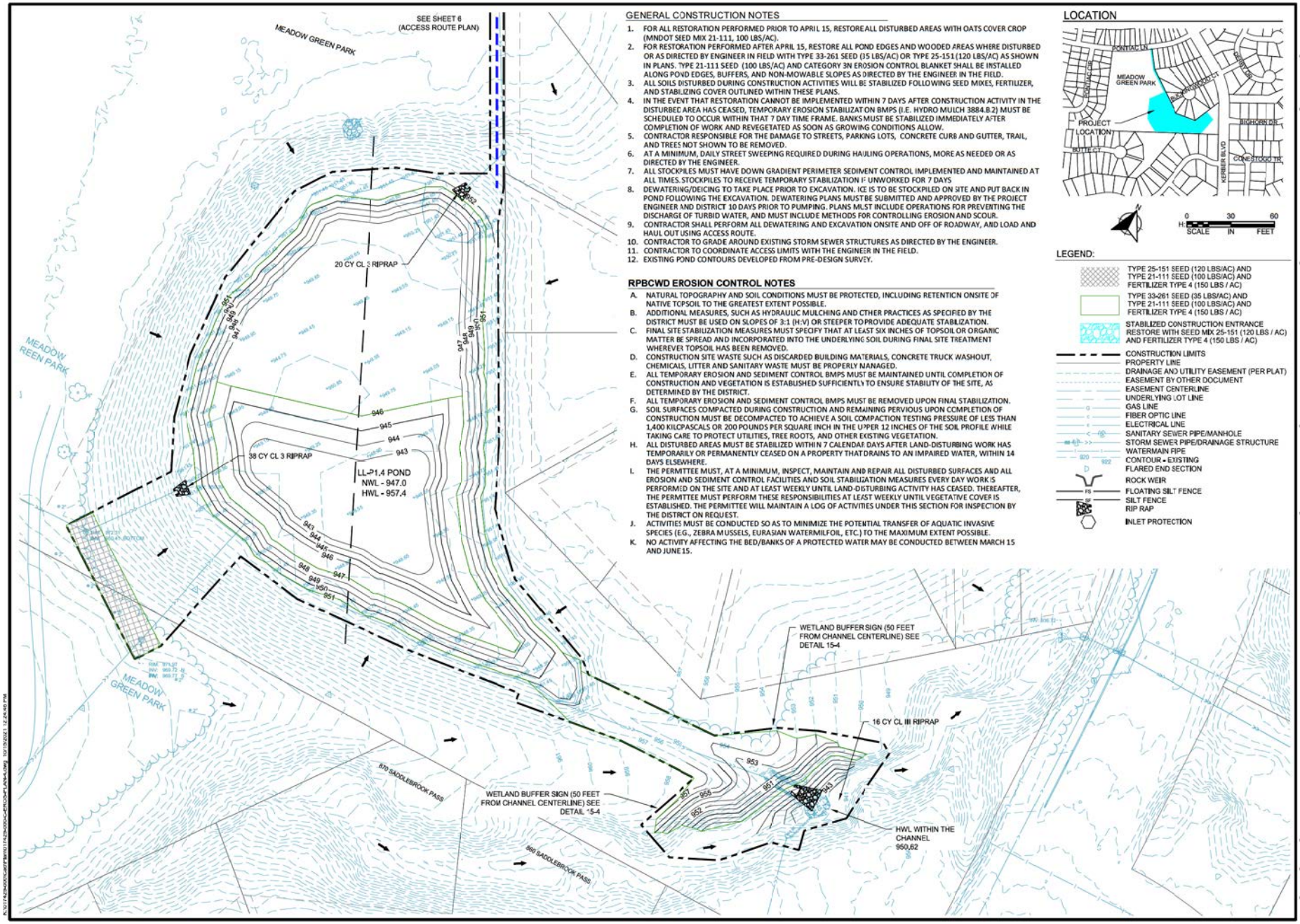

GENERAL CONSTRUCTION NOTES

1. FOR ALL RESTORATION PERFORMED PRIOR TO APRIL 15, RESTORE ALL DISTURBED AREAS WITH OATS COVER CROP (MNDOT SEED MIX 21-111, 100 LBS/AC).
2. FOR RESTORATION PERFORMED AFTER APRIL 15, RESTORE ALL POND EDGES AND WOODED AREAS WHERE DISTURBED OR AS DIRECTED BY ENGINEER IN FIELD WITH TYPE 33-261 SEED (35 LBS/AC) OR TYPE 25-151 (120 LBS/AC) AS SHOWN IN PLANS. TYPE 21-111 SEED (100 LBS/AC) AND CATEGORY 3N EROSION CONTROL BLANKET SHALL BE INSTALLED ALONG POND EDGES, BUFFERS, AND NON-MOWABLE SLOPES AS DIRECTED BY THE ENGINEER IN THE FIELD.
3. ALL SOILS DISTURBED DURING CONSTRUCTION ACTIVITIES WILL BE STABILIZED FOLLOWING SEED MIXES, FERTILIZER, AND STABILIZING COVER OUTLINED WITHIN THESE PLANS.
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5. CONTRACTOR RESPONSIBLE FOR THE DAMAGE TO STREETS, PARKING LOTS, CONCRETE CURB AND GUTTER, TRAIL, AND TREES NOT SHOWN TO BE REMOVED.
6. AT A MINIMUM, DAILY STREET SWEEPING REQUIRED DURING HAULING OPERATIONS, MORE AS NEEDED OR AS DIRECTED BY THE ENGINEER.
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RPBCWD EROSION CONTROL NOTES

A. NATURAL TOPOGRAPHY AND SOIL CONDITIONS MUST BE PROTECTED, INCLUDING RETENTION ONSITE OF NATIVE TOPSOIL TO THE GREATEST EXTENT POSSIBLE.
B. ADDITIONAL MEASURES, SUCH AS HYDRAULIC MULCHING AND OTHER PRACTICES AS SPECIFIED BY THE DISTRICT MUST BE USED ON SLOPES OF 3:1 (H:V) OR STEEPER TO PROVIDE ADEQUATE STABILIZATION.
C. FINAL SITE STABILIZATION MEASURES MUST SPECIFY THAT AT LEAST SIX INCHES OF TOPSOIL OR ORGANIC MATTER BE SPREAD AND INCORPORATED INTO THE UNDERLYING SOIL DURING FINAL SITE TREATMENT WHEREVER TOPSOIL HAS BEEN REMOVED.
D. CONSTRUCTION SITE WASTE SUCH AS DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, CHEMICALS, LITTER AND SANITARY WASTE MUST BE PROPERLY MANAGED.
E. ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMPS MUST BE MAINTAINED UNTIL COMPLETION OF CONSTRUCTION AND VEGETATION IS ESTABLISHED SUFFICIENTLY TO ENSURE STABILITY OF THE SITE, AS DETERMINED BY THE DISTRICT.
F. ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMPS MUST BE REMOVED UPON FINAL STABILIZATION.
G. SOIL SURFACES COMPACTED DURING CONSTRUCTION AND REMAINING PERVIOUS UPON COMPLETION OF CONSTRUCTION MUST BE DECOMPACTED TO ACHIEVE A SOIL COMPACTION TESTING PRESSURE OF LESS THAN 1,400 KILOPASCALS OR 200 POUNDS PER SQUARE INCH IN THE UPPER 12 INCHES OF THE SOIL PROFILE WHILE TAKING CARE TO PROTECT UTILITIES, TREE ROOTS, AND OTHER EXISTING VEGETATION.
H. ALL DISTURBED AREAS MUST BE STABILIZED WITHIN 7 CALENDAR DAYS AFTER LAND-DISTURBING WORK HAS TEMPORARILY OR PERMANENTLY CEASED ON A PROPERTY THAT DRAINS TO AN IMPAIRED WATER, WITHIN 14 DAYS ELSEWHERE.
I. THE PERMITTEE MUST, AT A MINIMUM, INSPECT, MAINTAIN AND REPAIR ALL DISTURBED SURFACES AND ALL EROSION AND SEDIMENT CONTROL FACILITIES AND SOIL STABILIZATION MEASURES EVERY DAY WORK IS PERFORMED ON THE SITE AND AT LEAST WEEKLY UNTIL LAND-DISTURBING ACTIVITY HAS CEASED. THEREAFTER, THE PERMITTEE MUST PERFORM THESE RESPONSIBILITIES AT LEAST WEEKLY UNTIL VEGETATIVE COVER IS ESTABLISHED. THE PERMITTEE WILL MAINTAIN A LOG OF ACTIVITIES UNDER THIS SECTION FOR INSPECTION BY THE DISTRICT ON REQUEST.
J. ACTIVITIES MUST BE CONDUCTED SO AS TO MINIMIZE THE POTENTIAL TRANSFER OF AQUATIC INVASIVE SPECIES (E.G., ZEBRA MUSSELS, EURASIAN WATERMILFOIL, ETC.) TO THE MAXIMUM EXTENT POSSIBLE.
K. NO ACTIVITY AFFECTING THE BED/BANKS OF A PROTECTED WATER MAY BE CONDUCTED BETWEEN MARCH 15 AND JUNE 15.

LOCATION

LEGEND:

- TYPE 25-151 SEED (120 LBS/AC) AND TYPE 21-111 SEED (100 LBS/AC) AND FERTILIZER TYPE 4 (150 LBS / AC)
- TYPE 33-261 SEED (35 LBS/AC) AND TYPE 21-111 SEED (100 LBS/AC) AND FERTILIZER TYPE 4 (150 LBS / AC)
- STABILIZED CONSTRUCTION ENTRANCE
- RESTORE WITH SEED MIX 25-151 (120 LBS / AC) AND FERTILIZER TYPE 4 (150 LBS / AC)
- CONSTRUCTION LIMITS
- PROPERTY LINE
- DRAINAGE AND UTILITY EASEMENT (PER PLAT)
- EASEMENT BY OTHER DOCUMENT
- EASEMENT CENTERLINE
- UNDERLYING LOT LINE
- GAS LINE
- FIBER OPTIC LINE
- ELECTRICAL LINE
- SANITARY SEWER PIPE/MANHOLE
- STORM SEWER PIPE/DRAINAGE STRUCTURE
- WATERMAIN PIPE
- CONTOUR - EXISTING
- FLARED END SECTION
- ROCK WEIR
- FLOATING SILT FENCE
- SILT FENCE
- RIP RAP
- INLET PROTECTION

wsb

SCALE: AS SHOWN	DESIGN BY: KJF
PLAN BY: CKJ	CHECK BY: WCA

REVISIONS

NO.	DATE	DESCRIPTION

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WILLIAM C. ALMS, P.E. LIC. NO. 54301

DATE: 10/07/2021

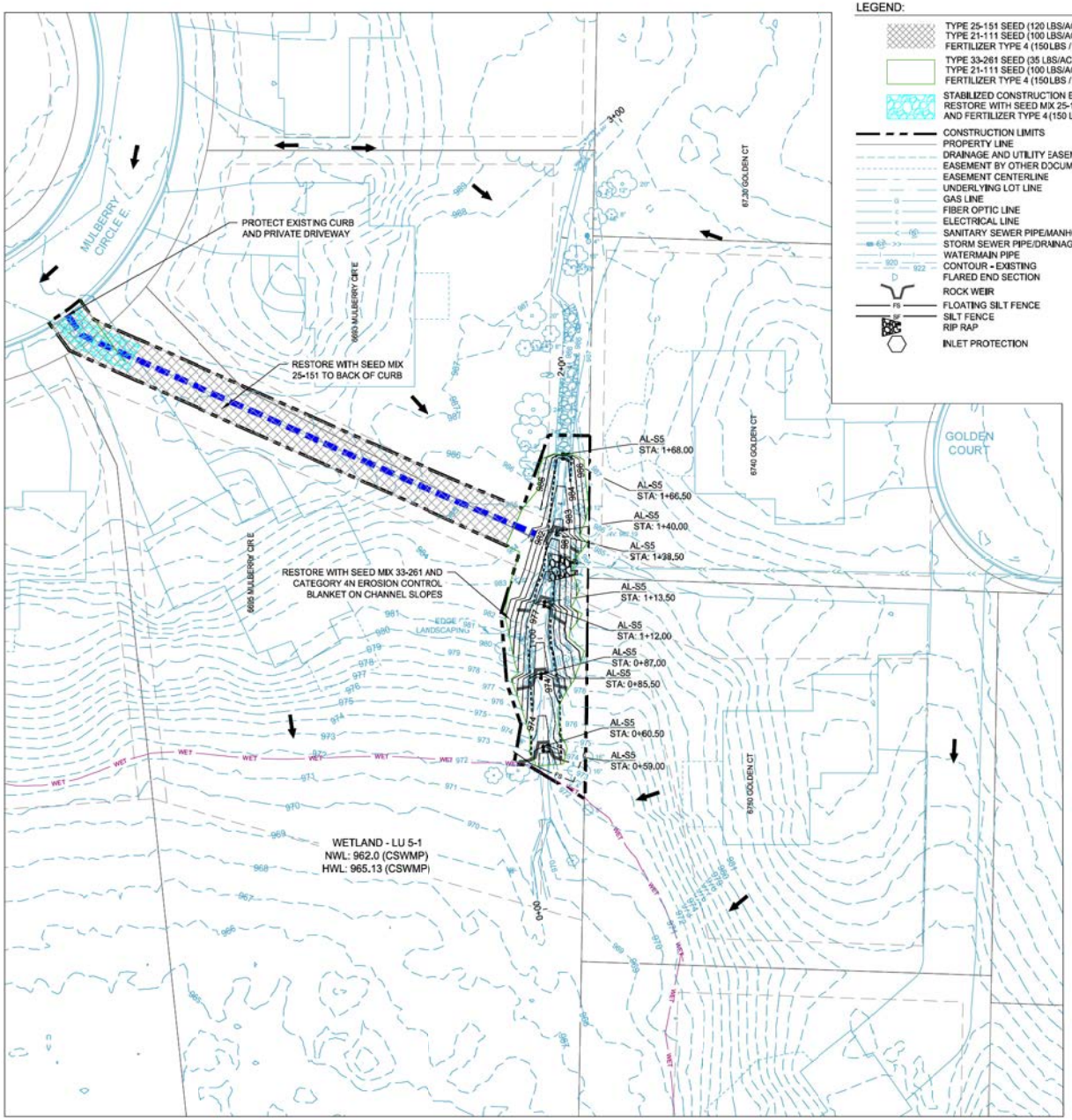
EROSION CONTROL PLANS SITE 4

2021 POND MAINTENANCE PROJECT
CITY OF CHANHASSEN

CLIENT PROJECT NO. 21-13

WSB PROJECT NO. 017429-000

SHEET 12 OF 15



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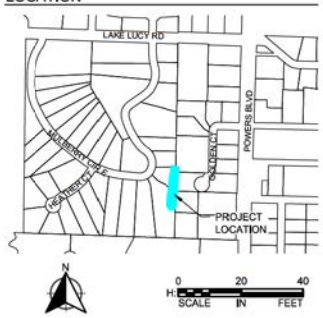
- SF — SILT FENCE
- RIP RAP
- INLET PROTECTION

LOCATION



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D. CONSTRUCTION SITE WASTE SUCH AS DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, CHEMICALS, LITTER AND SANITARY WASTE MUST BE PROPERLY MANAGED.
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REVISIONS

NO.	DATE	DESCRIPTION

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

WILLIAM C. ALMS, P.E.
DATE: 10/07/2021 LIC. NO. 54301

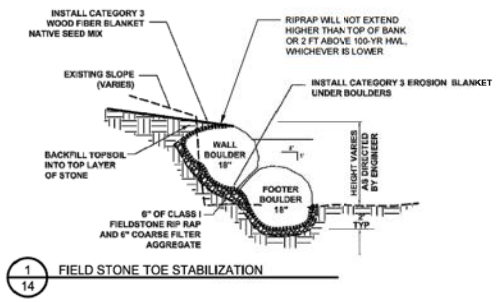
EROSION CONTROL PLANS SITE 5

2021 POND MAINTENANCE PROJECT
CITY OF CHANHASSEN

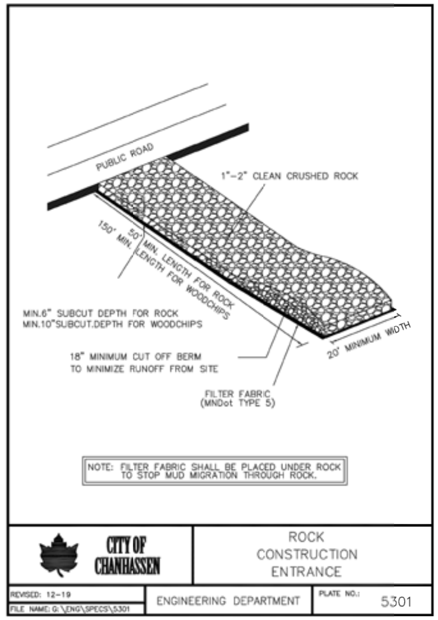
CLIENT PROJECT NO.
21-13

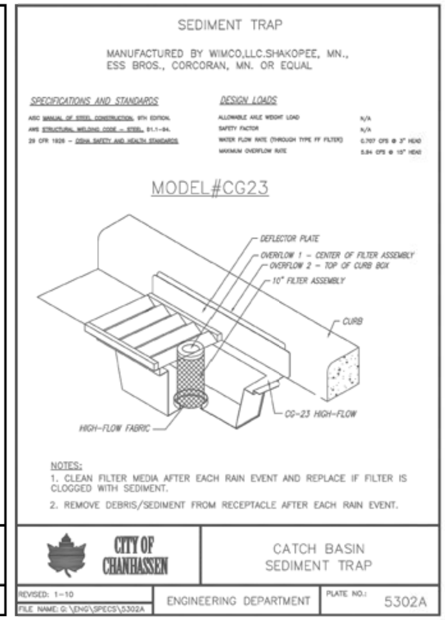
WSB PROJECT NO.
017429-000

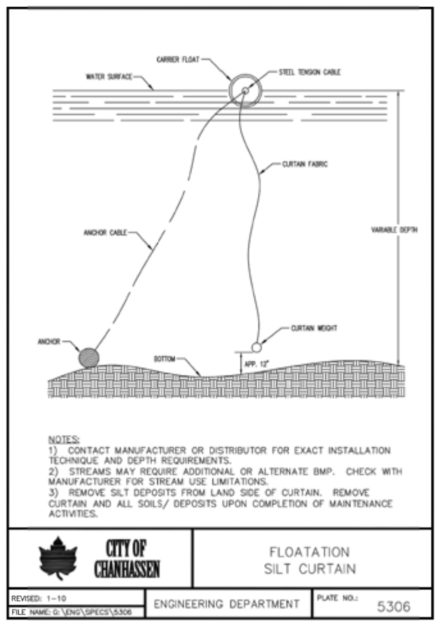
SHEET
13 OF 15

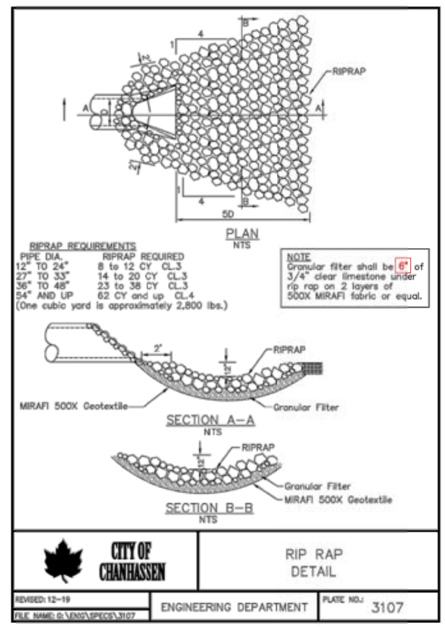


1/14 FIELD STONE TOE STABILIZATION









wsb

SCALE: AS SHOWN
DESIGN BY: KJF
PLAN BY: CKJ
CHECK BY: WCA

REVISIONS

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WILLIAM C. ALMS, P.E.

DATE: 10/07/2021 LIC. NO: 54301

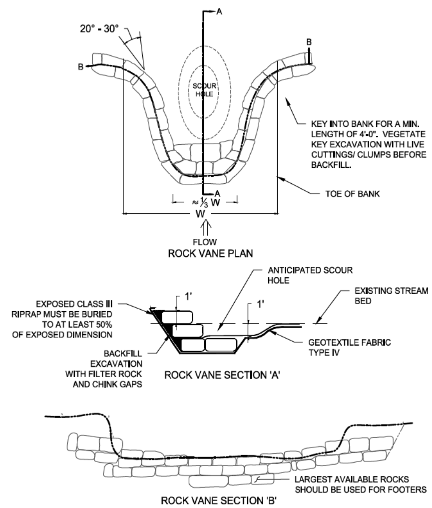
MISCELLANEOUS DETAILS

2021 POND MAINTENANCE PROJECT
CITY OF CHANHASSEN

CLIENT PROJECT NO. 21-13

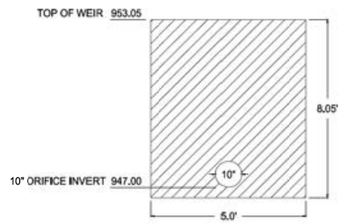
WSB PROJECT NO. 017429-000

SHEET 14 OF 15

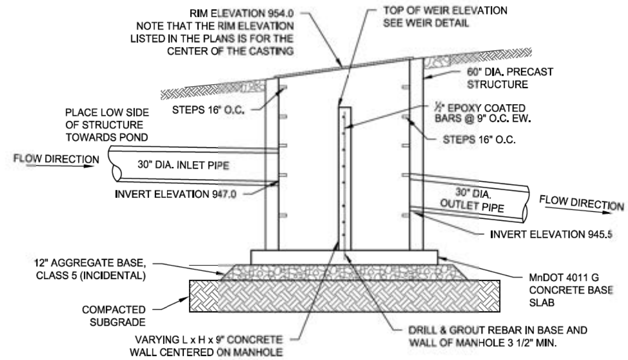


NOTES: THE ROCK TO ROCK CONTACT SHOULD BE SOLID. IF ROCKS ARE NOT PERFECTLY FLAT, THE THICKER END SHALL BE PLACED DOWNSTREAM.

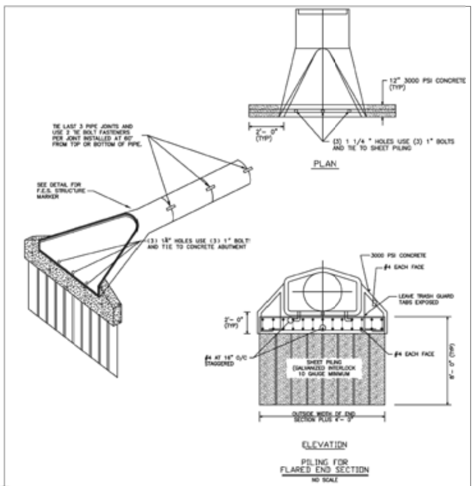
1/15 ROCK WEIR



DESIGN SPECIAL 1 STRUCTURE WEIR DETAIL

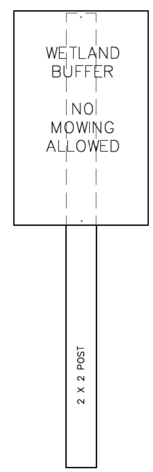


DESIGN SPECIAL 1 STRUCTURE



2/15 FES SHEET PILING DETAIL

4/15 WETLAND BUFFER MARKER



SPECIFICATIONS

SUBMIT PLAN TO CITY OF CHANHASSEN PRIOR TO INSTALLATION OF SIGNS, MATERIAL AND WORDS MAY CHANGE

MONUMENT

CONSISTS OF A POST AND A WETLAND BUFFER SIGN

WETLAND BUFFER SIGNS

MOUNTED FLUSH WITH THE TOP OF THE POST FASTENED WITH NON-REMOVABLE SCREWS OR RIVETS SIZE: 12" H X 8" W ALUMINUM SHALL BE 5052-H38 OR 6061-T6 ALLOY, GAUGE SHALL BE 0.080.

POST MATERIALS

2" X 2" X 8' POST

COLOR

COLOR SHALL BE GREEN LETTERS ON WHITE BACKGROUND

POST INSTALLATION

MOUNTED TO A HEIGHT OF FOUR FEET ABOVE GRADE SET AT LEAST 42" IN THE GROUND INSTALLED AT EACH LOT LINE WHERE IT CROSSES A WETLAND BUFFER WITH A MAXIMUM SPACING OF 300 FEET BETWEEN SIGNS (IF NO BUFFER IS REQUIRED THE MONUMENT SHALL BE AT THE EDGE OF THE WETLAND). PLACE ADDITIONAL POSTS AS NECESSARY TO FOLLOW BUFFER CONTOUR LINE

4/15 WETLAND BUFFER MARKER

SCALE: AS SHOWN	DESIGN BY: KJF
PLAN BY: CKJ	CHECK BY: WCA

REVISIONS

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WILLIAM C. ALMS, P.E.

DATE: 10/07/2021 LIC. NO: 54301

MISCELLANEOUS DETAILS

2021 POND MAINTENANCE PROJECT
CITY OF CHANHASSEN

CLIENT PROJECT NO. 21-13

WSB PROJECT NO. 017429-000

SHEET 15 OF 15

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

18681 Lake Drive East
Chanhassen, MN 55317
952-607-6512
www.rpbcwd.org

Riley Purgatory Bluff Creek Watershed District Permit Application Review

Permit No: 2020-041

Considered at Board of Managers Meeting: August 5, 2020

Received complete: July 29, 2020

Applicant: Albert Eliasen

Consultant: Civil Methods, Kent Brander

Project: Shoreline Stabilization – The applicant stabilized of about 140 feet of Lotus Lake shoreline on an existing single-family home property at 7420 Chanhassen Road in Chanhassen without receiving a permit from RPBCWD or the MNDNR.

Location: 7420 Chanhassen Road, Chanhassen, MN

Reviewer: Scott Sobiech, PE, Barr Engineering

Rule Conformance Summary

Rule	Issue	Conforms to RBPCWD Rules?	Comments
B	**Floodplain Management and Drainage Alterations**	See comment.	See rule specific condition B1-B2.
C	**Erosion Prevention and Sediment Control**	See comment.	See rule specific conditionC1-C3.
F	**Shoreline and Streambank Stabilization**	See comment.	See rule specific condition F1-F3.
L	**Permit Fee**	See Comment	$300 fee deposit received on July 9, 2020
M	**Financial Assurance**	See Comment	The financial assurance is calculated at $16,113

Project Background

The applicant installed riprap and filter material to stabilize the shoreline of his property along Lotus Lake without receiving a permit from Riley Purgatory Bluff Creek Watershed District (RPBCWD) or the state Department of Natural Resources. The project is located at the residence at 7420 Chanhassen Road in Chanhassen. RPBCWD staff issued a notice of probable violation (NOPV) on February 11, 2020 for the placement of riprap without a permit. In conjunction with the transmittal of the original NOPV RPBCWD's Watershed Planning Manager Jeffery included a completed Shoreline Erosion Intensity Worksheet and aerial photography. Watershed Planning Manager Jeffery sent a second NOPV on May 6, 2020. The applicant submitted materials prepared by Civil Methods, Inc on June 26th and a signed permit application with associated permit fee on July 9th. The RPBCWD managers briefly discussed the status of the NOPV at their July 8th meeting and requested this to be brought to them at the August meeting for further discuss and direction on a course of action at that time

Because the shoreline stabilization project involved work below the 100-year flood elevation of Lotus Lake and stabilized a portion of Lotus Lake shoreline, the project needs to confirm to RPBCWD's permit requirements for Rule B-Floodplain Management, Rule C- Erosion Prevention and Sediment Control and Rule F- Shoreline and Streambank Stabilization. Because the submittal was missing drawings certified by a professional engineer and an erosion intensity worksheet, the applicant was notified via email on July 16, 2020 that their submittal was considered incompleteThe applicant's engineer submitted an as-built drawing on July 29, 2020. The project site information is summarized below:

Description	Area
Total Site Area	1.06 acres
Length of Shoreline impacted	140 feet
New (Increase) in Site Impervious Area	0
Disturbed impervious surface	0
Total Disturbed Area	0.019 acres

Exhibits reviewed:

- Permit application dated July 9, 2020
- Technical memorandum by Civil Methods, Inc dated June 26, 2020. Memo includes project narrative, pre and post photographs, May 6, 2020 NOPV, hand sketch of cross section of stabilization installation
- Draft Erosion Intensity worksheet prepared by Watershed Planning Manager Jeffery sent February 6, 2020
- An as-built Shoreline Protection Plan certified by Kent Brander, a professional engineer in Minnesota, dated July 29, 2020 (revised July 30, 2020)

Rule Specific Permit Conditions

Rule B: Floodplain Management and Drainage Alterations

Because the project disturbed land below the 100-year floodplain of Lotus Lake (897.4 msl) to stabilize an eroding shoreline, the project must conform to the requirements in the RPBCWD Floodplain Management and Drainage Alteration rule (Rule B, Subsection 2.1).

Rule B, Subsections 3.1 and 3.4 are not relevant because no buildings was constructed or reconstructed as part of the project, and the no impervious surface was created or re-created within 50 feet of a watercourse. Because the cross section information provided on the as-built shows excavation and installation of stabilization measures entirely below the existing ground level, the project did not result in the loss of flood storage volume below the 100-year floodplain, the project conforms to Rule B, Subsection 3.2. Because the applicant has demonstrated that the project did not place fill in the floodplain, the the engineer concurs that the project preserves the existing 100-year flood level and the project did not alter surface flows, complying with subsection 3.3.

To conform to RPBCWD Rule B, the following revisions are needed:

B1. To document compliance with RPBCWD's Rule B subsection 3.5 criteria, an erosion control plan in compliance with Rule C or documentation of compliance with Rule C erosion-control requirements must be submitted (e.g., verify 6" of topsoil was place, verify the soil was decompacted to 200 psi or less, verify final site restoration measure)

B2. Verification in the form of a signed statement from contractor or applicant documenting the measures implemented during construction to minimize the potential transfer of aquatic invasive species (e.g., zebra mussels, Eurasian watermilfoil, etc.) to the maximum extent possible.

Rule C: Erosion and Sediment Control

In accordance with paragraph 3.5 of Rule B, the project must conform to the requirements in the RPBCWD Erosion and Sediment Control rule. Because the construction activities are complete and the applicant is pursuing an after the fact permit, documentation must be provided to demonstrate construction of the project did not introduce sediment into Lotus Lake and that the site was restored in

accordance with the criteria in Rule C. To conform to the RPBCWD Rule C the following revisions are needed:

C1. Demonstrate that the final site stabilization measures resulted in at least six (6) inches of topsoil or organic matter being spread and incorporated into the underlying soil during final site treatment wherever topsoil was removed.
C2. Demonstrate the permanent site restoration measured used to prevent erosion of exposed soils.
C3. Demonstrate soil surfaces compacted during construction and remaining pervious upon completion of construction were decompacted to achieve a soil compaction testing pressure of less than 1,400 kilopascals or 200 pounds per square inch in the upper 12 inches of soil or a bulk density of less than 1.4 grams per cubic centimeter or 87 pounds per cubic foot in the upper 12 inches of soil.

Rule F: Shoreline and Streambank Stabilization

Because the applicant installed riprap to stabilize a portion of the shoreline of Lotus Lake, the project must conform to the requirements in the RPBCWD Shoreline and Streambank Stabilization rule (Rule F, Subsection 2). The work falls within the scope of Minnesota Department of Natural Resources General Permit #2015-1192. The applicant requested this project to be considered maintenance of existing riprap installed prior to February 1, 2015. Photographic information submitted shows that riprap boulders were present on the site in 2014. However, photo evidence indicates that the new riprap appears to extend wider than the prior-installed materials. In addition, the as-built cross section indicates the installation of the granular filter and toe boulders disturbed the underlying soils. As a result, the project does not qualify as maintenance for fast-track permitting under Rule F 3.4.

The main purpose of the project was to stabilize and restore an eroded shoreline along Lotus. The RPBCWD Engineer concurs that the photograph of the preexisting condition of the property provided by the applicant demonstrates some existing erosion and a need to restore the eroded shoreline which meets the requirements in Rule F, Subsection 3.1.

The Applicant did not provide a completed erosion intensity worksheet (EIW) as required by Rule F, Subsection 3.2a. Watershed Planning Coordinator Jeffery provided a draft EIW as part of the NOPV. The draft EIW resulted in a total score of 47. RPBCWD's engineer also reviewed the EIW and discovered that the average fetch is reasonably found to be slightly longer than originally estimated, thus increasing the draft EIW score to 48 – a medium energy site. Medium energy shorelines may be stabilized using a combination bioengineering and vegetated riprap stabilization practices. Because riprap was installed, which reflects a stabilization method different than what the shoreline EIW rating indicates, the applicant provided a proposed plan and profile drawing illustrating proposing modifications to incorporate native vegetation above the riprap. Typically, bioengineering and vegetated riprap would incorporate native vegetation (e.g., willow wattles, brush layering, live willow stakes, etc.) into the riprap section. These techniques are typically incorporated during construction to minimize the potential to adversely impact the integrity of the underlying aggregate filter and geotextile. While it

may be possible to incorporate some plantings between riprap boulders above the OHWL with minimal site disturbance, a combination of bioengineering and fully vegetated riprap would require significant reconstruction of the shoreline stabilization features.

Based on the as-built drawing, site photograph and site visit conducted by Watershed Planning Coordinator Jeffery in February 2020, the riprap used in the shoreline erosion protection was sized in accordance with the criteria in paragraph 3.3b for riprap placement along shorelines and was fieldstone boulders between 6" and 30" in diameter. The riprap size takes into account the potential for wave action at the site and the resulting erosional forces.

Because the as-built slope shown on the design plan is 3:1 (horizontal to vertical) or flatter waterward of the ordinary high water level, the project conforms to Rule F, Subsection 3.3.a.ii. The riprap stabilization appears to have followed the configuration of the existing shoreline and did not encroach horizontally from existing conditions. The as-built plan indicates no riprap or filter material was placed more than six (6) feet waterward of the ordinary high-water level (OHW) of elevation 896.3. As a result, the project conforms to Rule F, Subsection 3.3.a.iii.

The riprap to be used in the shoreline erosion protection was natural stone between 6" and 30" in diameter to disperse wave energy and resist movement to meet the requirements of Rule F, Subsection 3.3.b.i. The as-built drawing indicates that the riprap was placed to conform to the natural alignment of the shoreline to meet the criteria in Rule F, Subsection 3.3.b.ii. Consistent with the requirements in Rule F, Subsection 3.3.b.iii, a filter fabric conforming to Minnesota Department of Transportation (MnDOT) specification 3733 and 6 inches of granular fill conforming to MnDOT specification 3601.2 were provided as a transitional layer between the existing shoreline and the riprap. In addition, a note on the as-built drawing indicates riprap was not placed to cover emergent vegetation, consistent with Rule F, Subsection 3.3iv. The cross section on the as-built drawing and site photograph confirm that the riprap was installed to the approximately the top of bank elevation which conforms to Rule F, Subsection 3.3.b.v. As required by Rule F, Subsection 3.3.b.vi, the applicant demonstrated with a site photo and the engineer concurs that project was needed to stabilize an eroding shoreline from future erosion and it was not for cosmetic purposes.

The applicant provided an as-built drawing certified by a professional engineer in Minnesota documenting the installed riprap location and thickness, riprap material, finished slope, transition layer materials and thickness, 100-year flood elevation, ordinary high-water level, and topographic contours. Because the riprap installation was complete, adding a baseline with fixed measuring points would serve no purpose during construction and thus was not shown on the as-built. The drawing also shows the proposed modification to incorporate native vegetation above the installed riprap.

The RPBCWD Engineer finds that the following revisions are needed to conform to Rule F:

F1. The applicant must submit signed concurring the submission of the final erosion intensity worksheet on its behalf.

F2. The drawing calls for native vegetation planting plan to be determined. The applicant must provide a detailed landscaping plan listing the native vegetation proposed for RPBCWD review and approval. The native vegetation needs to be deep-rooted native species that tend to grow in a cascading fashion, to provide additional vegetative cover over installed riprap. Also, native vegetation must be added between the riprap boulders above the OWHL.

F3. There appears to be an inconsistency between the dimension labeled and the vertical axis on the both cross sections. The cross section lists a dimension of 2 feet but the vertical axis indicates about 6 inches. Please revise the dimension or vertical axis for consistency and confirm that the toe boulders were installed at least 50% buried and at least 1.25 times the maximum stone diameter (Rule F, subsection 3.3iii).

Rule L: Permit Fee Deposit:

The RPBCWD permit fee schedule adopted in February 2020 requires permit applicants to deposit $200 For land-disturbing activities on record single-family residential property to be held in escrow and applied to cover the $10 permit-processing fee and reimburse RPBCWD for permit review and inspection-related costs and when a permit application is approved, the deposit must be replenished to the applicable deposit amount by the applicant before the permit will be issued to cover actual costs incurred to monitor compliance with permit conditions and the RPBCWD Rules. A permit fee deposit of $300 was received on July 9, 2020.

Rule M: Financial Assurance:

Rules C: Floating silt curtain: 140 L.F. x $2.50/L.F. =.....$350

Rock Entrance: 1.0 x $250 =.....$250

Restoration: 0.019 acres x $2,500/acre =.....$48

Rule F: Shoreline or Streambank Stabilization:140 L.F. x $100/L.F. =.....$14,000

Contingency (10%) $1,465

Total Financial Assurance.....$16,113

Applicable General Requirements:

1. The RPBCWD Administrator and Engineer shall be notified at least three days prior to commencement of work.
2. Construction must be consistent with the plans, specifications, and models that were submitted by the applicant that were the basis of permit approval. The date(s) of the approved plans, specifications, and modeling are listed above and on the permit. The granting of the permit does not in any way relieve the permittee, its engineer, or other professional consultants of responsibility for the permitted work.
3. The grant of the permit does not relieve the permittee of any responsibility to obtain approval of any other regulatory body with authority, except as may be provided under Minnesota Department of Natural Resources General Permit 2015-1192, compliance with which, including payment of any applicable fee, is entirely the responsibility of the permittee.

4. The issuance of this permit does not convey any rights to either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
5. In all cases where the doing by the permittee of anything authorized by this permit involves the taking, using or damaging of any property, rights or interests of any other person or persons, or of any publicly owned lands or improvements or interests, the permittee, before proceeding therewith, must acquire all necessary property rights and interest.
6. RPBCWD's determination to issue this permit was made in reliance on the information provided by the applicant. Any substantive change in the work affecting the nature and extent of applicability of RPBCWD regulatory requirements or substantive changes in the methods or means of compliance with RPBCWD regulatory requirements must be the subject of an application for a permit modification to the RPBCWD.
7. If the conditions herein are met and the permit is issued by RPBCWD, the applicant, by accepting the permit, grants access to the site of the work at all reasonable times during and after construction to authorized representatives of the RPBCWD for inspection of the work.

Findings

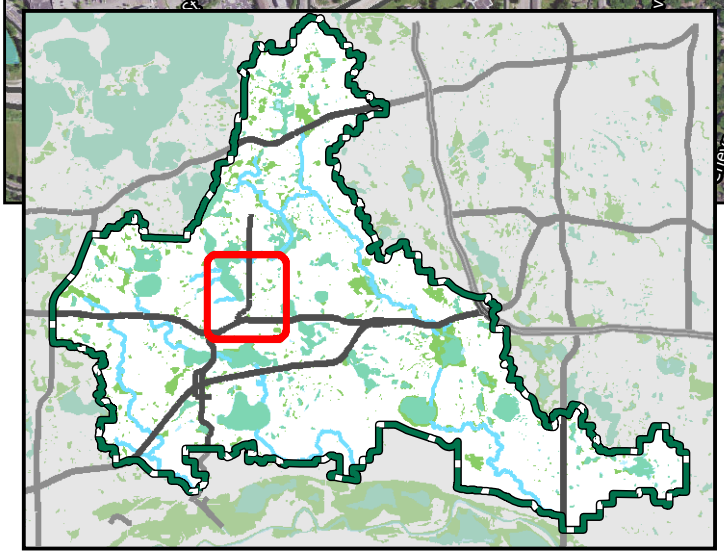
1. The applicant is requesting after the fact approval for the installation of riprap along 140 feet of Lotus Lake shoreline.
2. The application is considered incomplete because of missing information needed to assess compliance with RPBCWD's floodplain, erosion prevention and sediment control, and shoreline and streambank stabilization rules.
3. The project will conform to Rules B, C, and F if the rule specific comments detailed above are addressed.
4. Under Minnesota Department of Natural Resources General Permit 2015-1192 (attached to this report), approval of work under RPBCWD rule(s) F constitutes approval under applicable DNR work in waters rules. Compliance with conditions on approval and payment of applicable fees, if any, are necessary to benefit from general permit approval and are the responsibility of the applicants.

Recommendation:

Because this analysis is on a site for which a notice of probable violation has been issued for construction without a permit, it is recommended that the managers discuss the adequacy of the installed shoreline stabilization measures relative to the erosion intensity score (i.e., does the proposed vegetation above the riprap satisfy the requirement to implement a combination of bioengineering and vegetated riprap on sites with medium erosion intensity).

- If the board determines it does not, the applicant would need to request a variance for board consideration.

- If the board elects to conditionally approve the submittal as provided, it is recommended that the approval of the permit contingent upon the following, as modified by the board of managers:
    1. Continued compliance with General Requirements.
    2. Submission of signed concurrence of the applicant in the submission of the final erosion intensity worksheet on its behalf.
    3. Submission of a signed statement from contractor or applicant documenting the measures implemented during construction to minimize the potential transfer of aquatic invasive species (e.g., zebra mussels, Eurasian watermilfoil, etc.) to the maximum extent possible.
    4. Demonstrate that the final site stabilization measures resulted in at least six (6) inches of topsoil or organic matter being spread and incorporated into the underlying soil during final site treatment wherever topsoil was removed.
    5. Demonstrate soil surfaces compacted during construction and remaining pervious upon completion of construction were decompacted to achieve a soil compaction testing pressure of less than 1,400 kilopascals or 200 pounds per square inch in the upper 12 inches of soil or a bulk density of less than 1.4 grams per cubic centimeter or 87 pounds per cubic foot in the upper 12 inches of soil.
    6. Receipt of a detailed landscaping plan listing the native vegetation proposed for installation for RPBCWD review and approval. The native vegetation needs to be deep-rooted native species that tend to grow in a cascading fashion, to provide additional vegetative cover over installed riprap. Also, native vegetation must be added between the riprap boulders above the OWHL.
    7. Receipt of an updated as-built drawing that resolves the apparent inconsistency between the dimension labeled and the vertical axis on the both cross sections. The cross section lists a dimension of 2 feet but the vertical axis indicates about 6 inches. Please revise the dimension or vertical axis for consistency and confirm that the toe boulders were installed at least 50% buried and at least 1.25 times the maximum stone diameter (Rule F, subsection 3.3iii).
    8. Receipt of a financial assurance in the amount of $16,113.



N

Feet

0 1,000

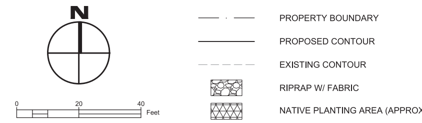
Permit Location Map

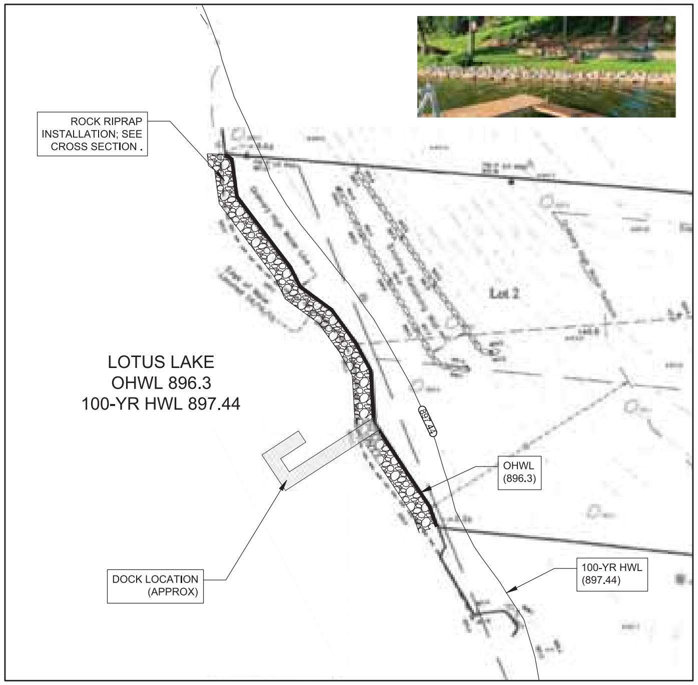
7420 CHANHASSEN ROAD

Permit 2020-041

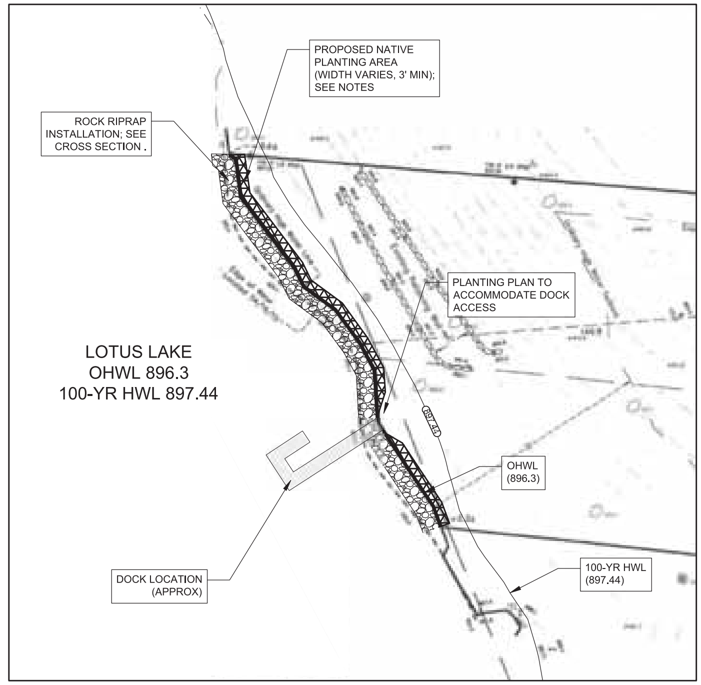
Riley Purgatory Bluff Creek Watershed District

Existing Elevation Information from
MN Dept of Natural Resources
MnTOPO Application





AS-BUILT



PROPOSED

AS-BUILT NOTES:

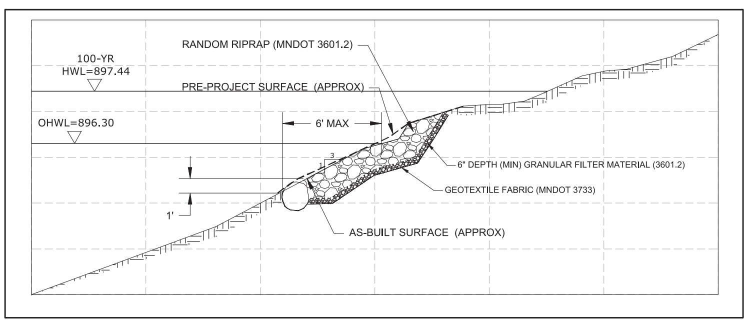
1. Project was a repair of existing riprap with the intent not to add more than was originally in place. Existing riprap reused where appropriate.
2. No fill placed in floodplain (100-yr HWL 897.44). No compensatory storage required.
3. No riprap placed more than 6' waterward of OHWL.
4. Contractor followed all best practices for construction, including vegetation and property protection, minimization of transfer of aquatic invasive species, erosion control, and site restoration.
5. Contractor performed due diligence for permitting.
6. Riprap placed is random (MnDOT 3601) with fabric (MnDOT 3733). Larger boulders placed at toe.
7. Riprap consists only of natural rock, between 6"-30" in diameter, free of debris that may cause pollution or siltation. Limestone and dolomite not used for riprap.
8. Riprap does not cover emergent vegetation.
9. Rock riprap was previously placed at the site for purposes of bank stabilization.
10. Riprap placed so that the final profile below the 100-year HWL (897.44) is essentially equivalent to that of pre-construction conditions. Any material removed for placement of fabric, granular filter material, or riprap was not placed in any location below the floodplain.

CONTRACTOR INFORMATION

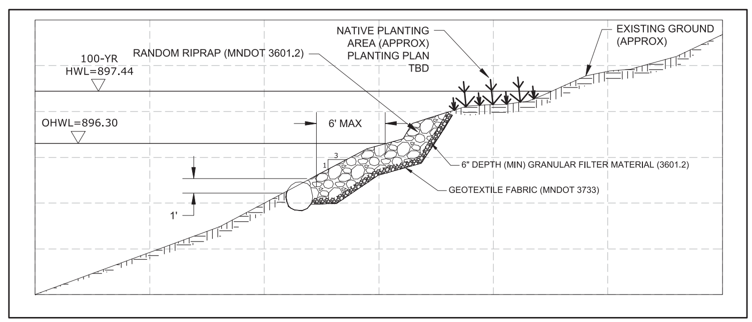
Hagen Lawn and Landscape
Attn: Chris Hagen
850 Flying Cloud Drive
Chaska, MN 55318
Ph: 612-799-5534
Email: chris@hagenll.com

PROPOSED NOTES:

1. Final width and planting plan for native planting area to be determined by Owner, subject to approval by Watershed District.
2. Planting plan shall include species that tend to grow in a cascading fashion, to provide additional vegetative cover to installed riprap without disrupting the as-built riprap/soil interface.
3. Planting bed shall be prepared as required for selected native plugs/seed.
4. Plantings to be installed in such a way as to minimize disturbance and prevent any potential erosion.



RIPRAP PROFILE (TYP.) - AS-BUILT



RIPRAP PROFILE (TYP.) - PROPOSED

811 Know what's below. Call before you dig.

CIVIL METHODS, INC.
1551 Livingston Avenue, Suite 104
West St. Paul, MN 55118
o:763.210.5713 | www.civilmethods.com

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

KENT E. BRANDER
DATE: 07-29-2020
LIC. NO.: 44578

DESIGNED: KEB
DRAWN: KEB
CHECKED: DMP

DATE / REVISION:
07-29-2020 As-Built Plan Documentation and Proposed Modifications Per Discussion

OWNER:
ALBERT ELIASEN
7420 CHANHASSEN ROAD
CHANHASSEN, MN

TITLE:
SHORELINE PROTECTION PLAN
SHORELINE PROTECTION PLAN
CHANHASSEN, MN

SHEET NO:
C01

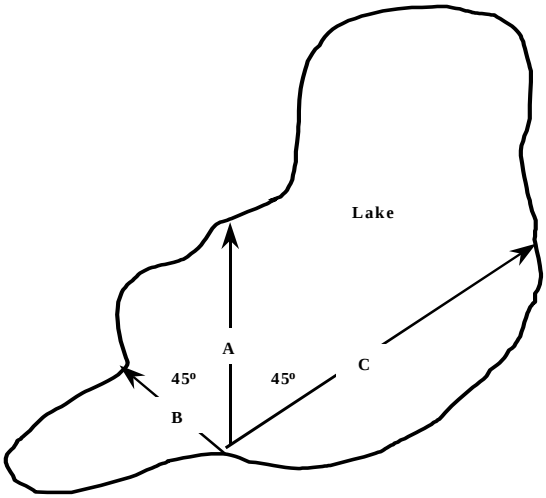
Completed by Watershed Planning Manager Jeffery

RPBCWD: Erosion Intensity (EI) Score Worksheet*.

SHORELINE VARIABLES	DESCRIPTIVE CATEGORIES EROSION INTENSITY VALUE IS LOCATED IN PARENTHESIS ON LEFT SIDE OF EACH CATEGORY BOX							ASSIGNED EI	RPBCWD Engineer
AVERAGE FETCH[1]-, average distance (miles), across the open water to the opposite shore measure 45[0] other side of the perpendicular to the shoreline.	(0) <1/10	(2) 1/10 – 1/3 0.251 mi	(4) 1/3-1 6800+700 = 7500/2 =3750 =0.7mi	(7) 1 –3	(10) 3-10	(13) 10-30	(16) >30	2	4
DEPTH AT 20 FEET, Depth of water (feet) 20 feet from shoreline	(1) <1	(2) 1-3 +/-3 feet	(3) 3-6	(4) 6-12	(5) >12			2or3	Agree
DEPTH AT 100 FEET, depth of water (feet) 100 feet from shoreline	(1) <1	(2) 1-3	(3) 3-6	(4) 6-12 8 feet	(5) >12			4	Agree
BANK HEIGHT[2], height of bank (feet), measure from toe of the bank to top of the bank-lip.	(1)<1	(2) 1-5 1.5 feet	(3) 5-10	(4) 10-20	(5) >20			2	Agree
BANK COMPOSITION composition and degree of cementation of the sediments	(0) rock, marl, tight clay, well cemented sand (dig with a pick)	(7) soft clay, clayey sand, moderately cemented (easily dug with a knife)	(15) uncemented sands or peat (easily dug with your hand)					7	Agree
INFLUENCE OF ADJACENT STRUCTURES, likelihood that adjacent structures are causing flank erosion at the site	(0) no hard armoring on either adjacent property	(1) hard armoring on one adjacent property	(2) hard armoring on both adjacent properties	(3) hard armoring on one adjacent property with measurable recession	(4) hard armoring on both adjacent properties with measurable recession adjacent to both structures			3	Agree
AQUATIC VEGETATION[3] type and abundance of vegetation occurring in the water off the shoreline	(0) rocky substrates unable to support vegetation.	(1) dense or abundant emergent, floating or submerged vegetation	(4) scattered or patchy emergent, floating or submergent vegetation	(7) lack of emergent, floating or submergent vegetation				4	Agree
BANK VEGETATION, type and abundance of the vegetation occurring on the bank face and immediately on top of the bank lip	(0) bank compose of rocky outcropping unable to support vegetation	(1) dense vegetation, upland trees, shrubs and grasses, including lawns	(4) clumps of vegetation alternating with areas lacking vegetation	(7) lack of vegetation (cleared), crop or agricultural land				1	Agree
BANK STABILITY, The degree to which bank and adjacent area (within 10 feet of the bank-lip) is stabilized by natural ground, shrub, and canopy vegetation (outside a 10' pier access corridor). Human disturbance is typified by tree removal, brushing, mowing, and lawn establishment.	(0) established lawn with few canopy trees	(1) established lawn with moderate to dense canopy trees	(4) moderate to dense natural ground vegetation and canopy trees with shrub layer substantially reduced; or few canopy trees with moderate to dense natural shrub layer.	(7) moderate to dense canopy trees with moderate to dense natural shrub layer; or other natural features prevents establishment of vegetation.				1	Agree
SHORELINE GEOMETRY general shape of the shoreline at the point of interest plus 200 yards on either side.	(1) coves or bays	(4) irregular shoreline or straight shoreline	(8) headland, point, or island					4	Agree
SHORE ORIENTATION[4] geographic direction the shoreline faces	(0) < 1/3 mile fetch	(1) north to east to south-southeast (349[0]-360[0], 1[0]-168[0])	(4) south to west-southwest (169[0]-258[0])	(8) west to north-northwest (259[0]-349[0])				4	Agree
BOAT WAKES[5] proximity to and use of boat channels	(1) no channels within 100 yards, broad open water body, or constricted shallow water body; or channels within no-wake zones	(6) thoroughfare within 100 yards carrying limited traffic, or thoroughfare 100 yards to ½ mile offshore carrying intensive traffic	(12) thoroughfare within 100 yards carrying intensive traffic (unregulated boating activity)					12	Agree
EROSION INTENSITY SCORE (EI) →								46 or 47	48 or 49

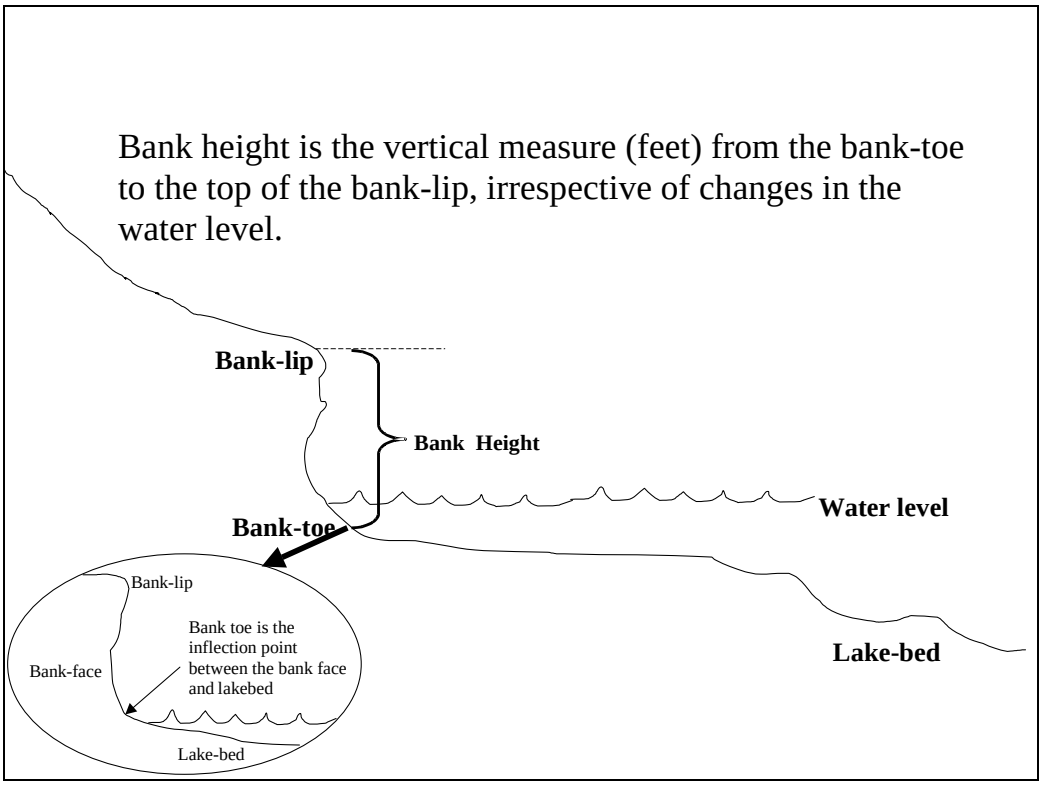
Note: * The Erosion Intensity Worksheet is adapted from Wisconsin Department of Natural Resources Chapter NR 328: SHORE EROSION CONTROL STRUCTURES IN NAVIGABLE WATERWAYS which developed the information from Knutson, P. L., H. H. Allen, and J. W. Webb, 1990. "Guidelines for Vegetative Erosion Control on Wave-Impacted Coastal Dredged Material Sites, "Dredging Operations Technical Support Program Technical Report D-90-13,U.S. Army Engineer Waterways Experiment Station, Vicksburg, MS 39180, 35 pp.

[1] Average fetch: The following diagram describes the calculation of average fetch.

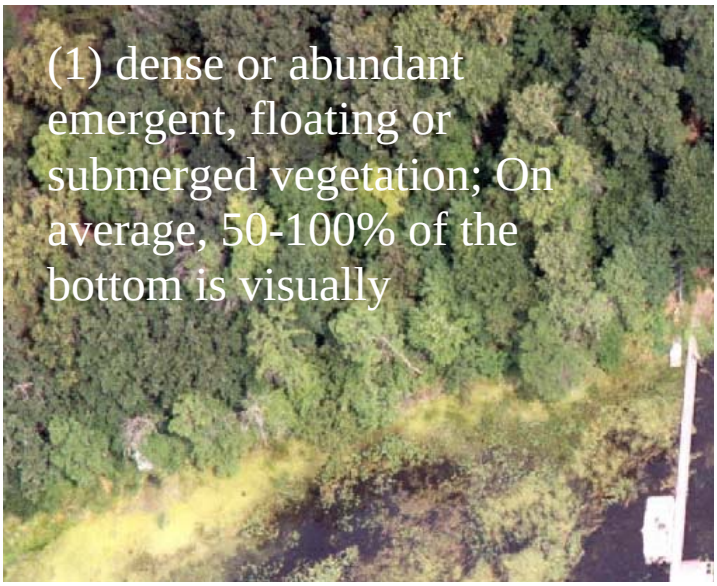


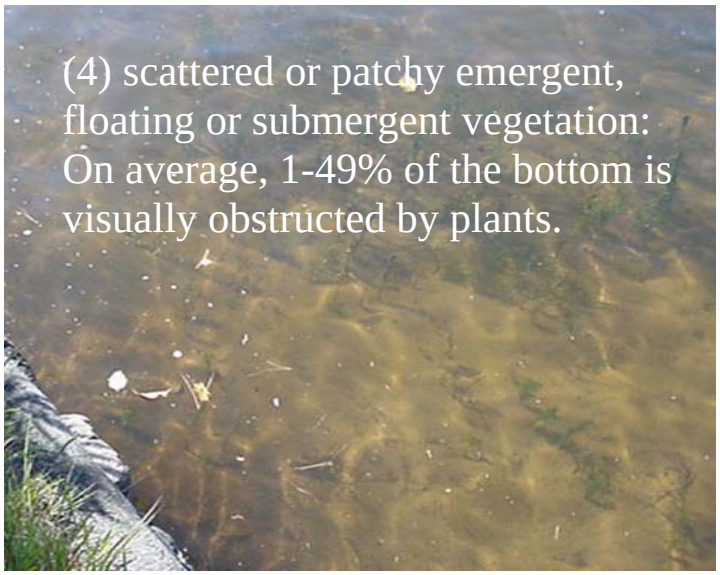
$$ave.\ fetch = (B + C)/2$$

[2] Bank height: The following diagram describes the features of the bank for the purpose of accurately measuring bank height

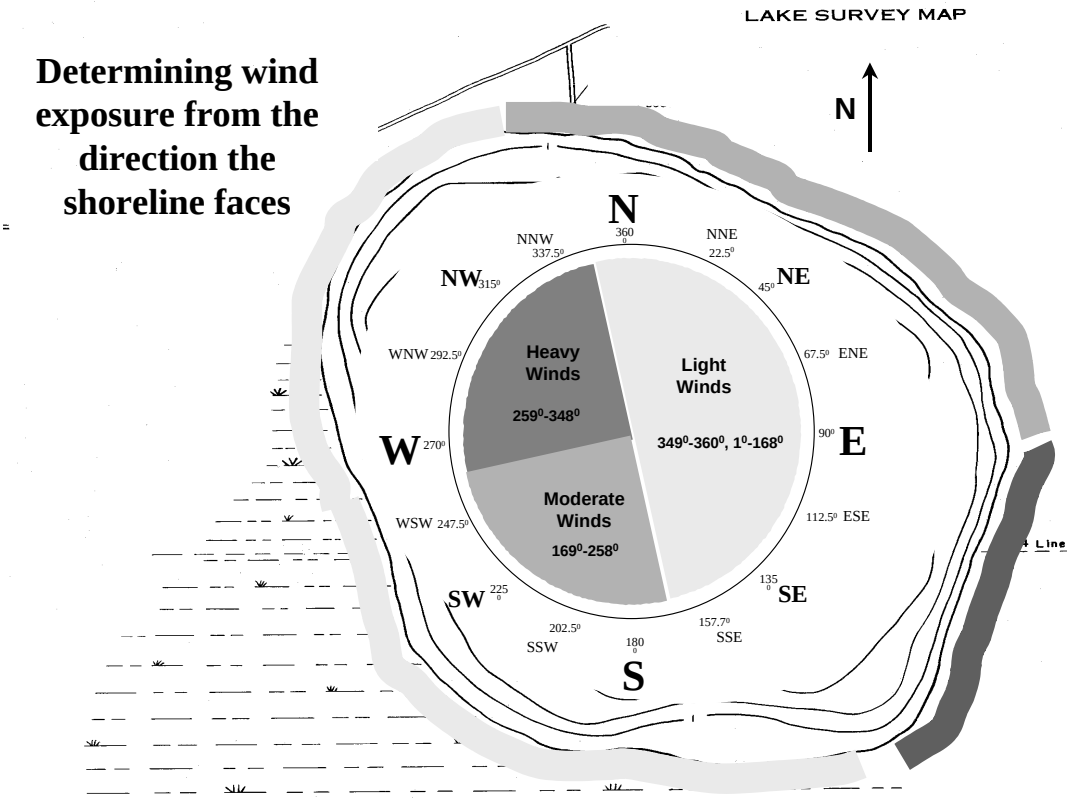


[3]**Aquatic vegetation:** Dense or abundant means that on average 50-100% of the bottom is visually obstructed by plants during the growing season, defined by the dates June 1 through September 15. Scattered or patchy means that on average 1-49% of the bottom is visually obstructed by plants during the growing season, defined by the dates June 1 through September 15. Absent means that on average < 1% of the bottom is visually obstructed by plants during the growing season, defined by the dates June 1 through September 15.





[4] **Shoreline Orientation:** The following lake map shows an example of accurately determining shoreline orientation



[5]**Boating**: A thoroughfare is identified as physical narrowing of the waterbody that by its nature intensifies boating activity near the shore. Thoroughfares which are 250 yards or wider are not scored 12 points, unless the depth contours of the thoroughfare constricts boating activity in close proximity to one shore, and the traffic is intensive. Intensive traffic is defined by a location where at least 50% of the public boating access available must pass through the thoroughfare to reach the open water of the lake, provided the waterway has a total of more than 60 car-trailer units. Limited traffic is defined by a location where at least 30% of the public boating access available must pass through the thoroughfare to reach the open water of the lake, provided the waterway has a total of more than 40 car-trailer units.

CIVIL METHODS, INC.
PROFESSIONAL ENGINEERS
LAND | WATER | INFRASTRUCTURE
1551 Livingston Ave, Ste 104, St. Paul, MN 55118 (763) 210-5713 www.civilmethods.com

TECHNICAL MEMORANDUM

Date:	June 26, 2020
Subject:	Shoreline and Streambank Stabilization Permit – RPBCWD Rule F Eliasen / Lotus Lake / 7420 Chanhassen Road
Prepared For:	Riley Purgatory Bluff Creek Watershed District (RPBCWD)
Prepared By:	Kent Brander, PE

A. INTRODUCTION

The purpose of this Technical Memorandum is to document fulfillment of the requirements to obtain the RPBCWD Shoreline and Streambank Stabilization Permit for the property located at 7420 Chanhassen Road, Chanhassen, MN 55317. The requirements are outlined in Rule F and other related agency documents.

B. BACKGROUND

Some key elements of the background to this project are as follows:

1. In the fall of 2019, Al Eliasen (Owner) contacted Hagen Landscaping (Contractor) with the goal of repairing riprap that was already in place, to mitigate ongoing erosion that Owner perceived was getting worse over time.
2. Prior to starting work, Contractor inquired with the city of Chanhassen to see if a permit was required for repair of existing riprap. The City indicated that no permit is required.
3. Contractor completed the work in February of 2020. The contractor based their work on the typical riprap cross section they use for other similar projects.
4. On February 10, 2020, the RPBCWD issued a Notice of Probable Violation (NOPV) for the project, for having failed to secure a RPBCWD permit (NOPV included as Attachment 1).

This timeline shows that both the Owner and Contractor considered this to be a maintenance project to restore the function of riprap that had been in place for a long time, and that they approached the project with the goal of complying with all permit requirements.

The City's response that no permit is required also reflects the overall intention of RPBCWD Rule F, Section 3.4, "Fast-track maintenance", which broadly allows for maintenance of shoreline stabilization practices put in place prior to February 1, 2015, provided certain criteria are met. The riprap at this location was installed long before that date and would therefore fall under the fast-track maintenance purview.

Given the circumstances, this background information is relevant to consideration of the permit or related actions by the RPBCWD. The Owner and Contractor were clearly not attempting to avoid any requirements, and they should therefore be given the benefit of the doubt where some judgment is required in evaluating the permit for retroactive approval.

C. FAST-TRACK MAINTENANCE CRITERIA MET

Based on the criteria listed in RPBCWD Rule F, Section 3.4, this project would appear to qualify for a fast-track maintenance permit.

Practice Constructed Prior to February 1, 2015

As required for consideration in this section of the rule, the shoreline stabilization practice (riprap) at this location was constructed well before February 1, 2015. Based on discussions with neighbors and other information, the Owner estimates the original riprap had been in place since the 1980s. Figure 1 is an aerial image from October 2014 that clearly shows the riprap in place, both on the subject property as well as adjacent properties.

Figure 1. October 2014 Aerial Image Showing Riprap

Practice Length, Width, and Depth Maintained

It must also be shown that the maintenance work would not increase the length, width, or depth of the practice, and will not disturb underlying soils. First, the length of the practice for both pre-existing and as-built conditions are the same (the entire shoreline, approximately 140 FT).

For as-built conditions, the width and depth of the practice were governed by the typical standards required by the Minnesota DNR and other agencies. As indicated in the sketch plan (Attachment 2) provided by the contractor (who is well aware of and accustomed to meeting these requirements) the riprap was to be placed no more than 6 FT waterward of the OHWL, at a maximum 3:1 slope, and no higher than the top of bank in order to avoid the need for compensatory floodplain storage. To some degree, these criteria dictate the width and depth of the practice and ensure a reasonable level of stability. No design plans or other information were available to estimate the width or depth of the original installation. However, clearly there was no intention of significantly increasing the width or depth of riprap or changing the fundamental nature of the shoreline protection.

Figure 2 shows the as-built conditions along with a small piece of the neighboring property visible in the background. As was presumably the case with the original installation, this riprap is a very typical installation that blends into the surroundings. While there is no specific measurement available of the initial width or depth of the practice, the work is clearly in accordance with the intention of the rule, in that no additional shoreline was riprapped, and the project simply restored the level of protection that had been in place previously.

Figure 2. As-built Conditions with Neighboring Property in Background

Underlying Soils Not Disturbed

The fast-track maintenance rule indicates that underlying soils must not be disturbed with the maintenance. This requirement helps to ensure that the installed practice will not disrupt the existing soil structure and result in additional susceptibility to erosion, and it requires that the construction activities be conducted in such a way that they do not destabilize the bank or the upland property and vegetation.

With construction already having been completed, the best way to check this requirement is to review the contractor's plans and typical practice, and to evaluate the results. The contractor's plan documents are included in Attachment 2.

The first item to note in the plans is the geotextile fabric and granular filter material. This filter, required for typical riprap installations, specifically ensures a stable interface between the riprap and the underlying soil. It is not known what type of filter (if any) was provided with the original installation, but this is clearly an improvement with respect to stability of the underlying soils.

It is also worth noting that the work was completed in early February during frozen conditions. This facilitates the construction process and significantly reduces the likelihood of soil disturbance, both near the bank as well as upland (in access areas). As noted on the plan, work was done over the ice. The plan

also notes that seed and erosion control blanket were installed behind the riprap in disturbed areas. As can be seen in Figure 2, any disturbed vegetation on the site was clearly restored and the site was left in a stable condition.

D. ADDITIONAL CONSIDERATIONS

CMI conducted a site visit on May 20, 2020 to observe the as-built conditions and discuss the project with the Owner. The riprap appeared to be stable and properly installed with quality workmanship. It was noted that a City sanitary sewer runs parallel to the shore approximately 10 FT inland. The shoreline of the neighboring property to the north was also observed to have a riprap installation that is in need of similar maintenance action. A pipe protruding from the bank of that property provides a visual reference for ongoing erosion. Based on discussion with the owner, the pipe exposure has increased significantly in recent years. Indicating approximately 4-5 FT of shoreline receding due to increased erosion. The pipe is shown in Figure 3.

Figure 3. Pipe Protruding from Bank on Neighboring Property

Finally, although it is requested that the permit for this project be granted based on the fast-track maintenance allowance for pre-existing stabilization practices, we would suggest that riprap is the proper approach to shoreline stabilization in this case even if it had not been installed previously. Considering the significant evidence of erosion on the neighboring property, the increasing amount of wakeboard activity and the associated wave action, and the presence of the City sewer, a standard riprap installation meeting all applicable agency requirements is an appropriate solution at this site.

E. CONCLUSION

The riprap project completed on the subject property meets the criteria for a permit as described in RPBCWD Rule F, Section 3.4.

NOTICE OF PROBABLE VIOLATION

Riley-Purgatory-Bluff Creek Watershed District
18681 Lake Drive East, Chanhassen, MN 55317
www.rpbcwd.org

Subject Property: PIN 258400020

Address: 7420 Chanhassen Road, Chanhassen, MN 55317

Property Owner: Albert A Eliasen

Permit Number: No Permit Issued Permitee (if different) _____

Contractor: Hagen Landscape and Barge Service

Date and Time: 02/10/2020 1500

The following apparent violations have been observed by RPBCWD staff:

	Rule/Permit/Order	Description
1.	Rule F -Shoreline Stabilization	No permit has been applied for or issued by the RPBCWD or DNR
2.		
3.		

You are requested to take the following actions to address the circumstances described above:

	Action	Requested Date/Time for Compliance
1.	Apply to the RPBCWD for applicable permits, with requisite fees, plans, and exhibits consistent with RPBCWD rules. www.pbcwd.org/permits Rule F requires that the applicant demonstrate that the selected method of stabilization is appropriate for the conditions. A copy of the RPBCWD scoresheet is attached.	May 26, 2020 for presentation at July 8, 2020 meeting of the RPBCWD Board of Managers
2.		

Additional Notes/Comments

A Notice of Probable Violation (NOPV) was sent on February 11, 2020 stating that shoreline stabilization work had been performed without a permit from the RPBCWD or the MN DNR. The contractor, Chris Hagen, contacted the RPBCWD on Feb 21, 2020 and provided a plan. However, no application was submitted including all the supporting materials as required under Rule F – Shoreline and Streambank Stabilization (see section 4 and subsection 3.2).

http://www.rpbcwd.org/application/files/1215/7781/4335/Rule_F-_Shoreline_and_Streambank_Stabilization_12.19.pdf

In the transmittal for the original NOPV, I included a Shoreline Erosion Intensity Worksheet (EIW)and an aerial photograph showing some of the requisite supporting information. This EIW did not demonstrate a need to riprap the shoreline. I have included that again for your use. You may also download a blank EIW here: http://www.rpbcwd.org/application/files/8715/5594/6148/Erosion_Intensity_Worksheet_RPBCWDVersion.pdf

Please contact Scott Sobiech at 952.832.2755 or myself at 952.807.6885 if you have any questions. Otherwise, submit your application on-line. Provide a signed copy of the application, the supporting materials as spelled out in section 4 of Rule F, and the $200 permit application fee/deposit. These can be emailed to me at terryjeffery@comcast.net and the check can be mailed to 18681 Lake Drive East, Chanhassen, MN 55317

This is not a legally binding order of the Riley-Purgatory-Bluff Creek Watershed District. **However, if you do not complete the actions requested above by the indicated deadline(s), RPBCWD staff will schedule an enforcement hearing before the RPBCWD board of managers. You will be provided with notice of the scheduled hearing and, at the hearing, an opportunity to appear before and be heard by the managers.** The timeliness and completeness of your actions will be considered by the board of managers in deciding whether to take further enforcement steps. The board may issue an order requiring remedial, corrective, preventative or other actions to achieve compliance with applicable RPBCWD requirements.

The listing of apparent violations above does not prevent the board from finding additional or other violations on the basis of evidence presented. Under Minnesota Statutes section 103D.545, failure to comply with RPBCWD rules, the conditions of your permit or an order of the board of managers subjects you to possible civil and criminal penalties. Pursuant to RPBCWD Rule L, you will be liable for all costs incurred by RPBCWD in obtaining and monitoring your compliance with applicable RPBCWD rules, permit terms and conditions, and orders of the board of managers, including consultants' costs and attorneys' fees.

This notice does not affect the ability of any other federal, state or local body of government to take enforcement action against you pursuant to its own laws and regulations.

ISSUED BY:

Terry Jeffery / Watershed Planning Manager
Name/Title (Print)

Signature

Mar 6, 2020
Date

ISSUED VIA:

[_] EMAIL
[_] IN PERSON
[X] OTHER (specify: US Mail)

ISSUED TO/RECEIVED BY:

Albert A. Eliasen
Name/Title (Print)

Date: February 10, 2020

_____
Title/Organization (Print)

_____

_____
Address & Telephone

_____
Signature

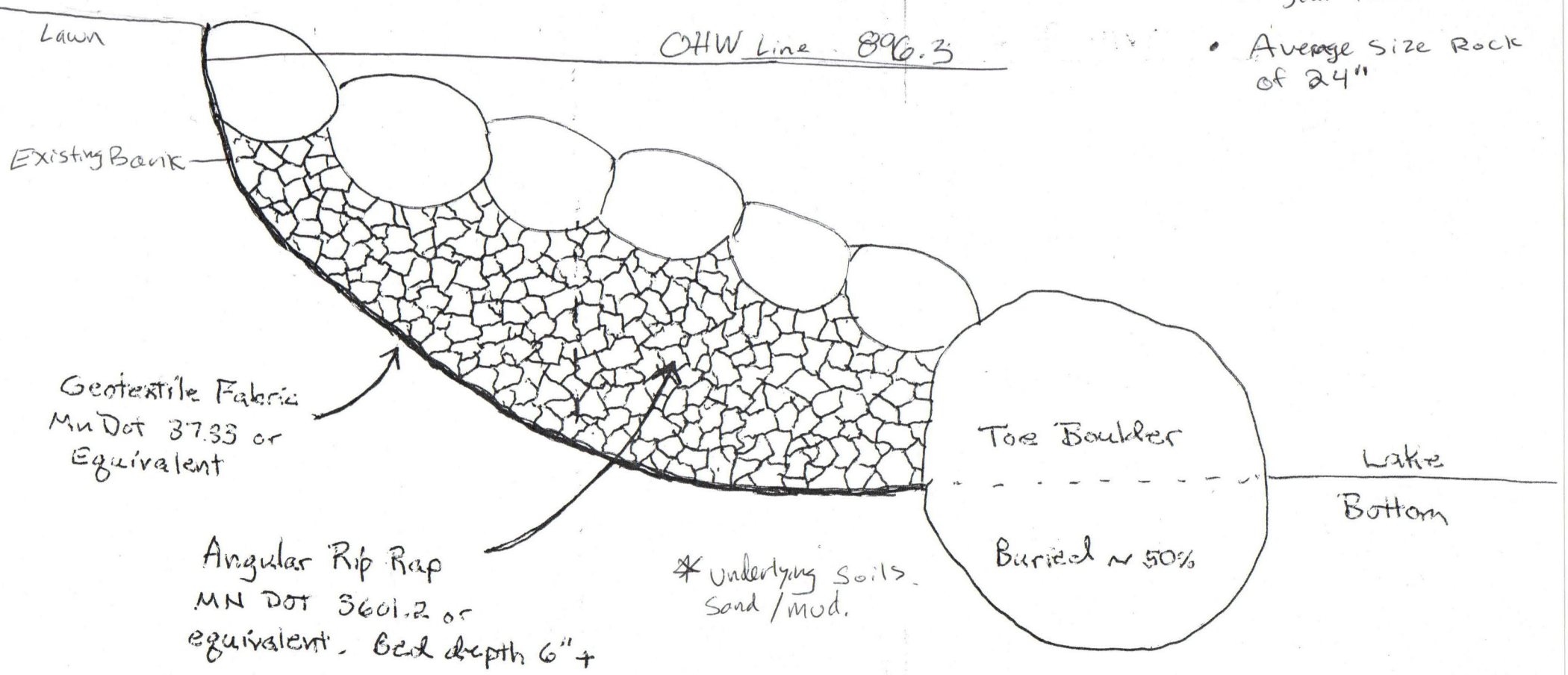
Your signature here indicates only that you received this notice. Your signature does not constitute an admission of any kind with respect to the apparent violations listed above.

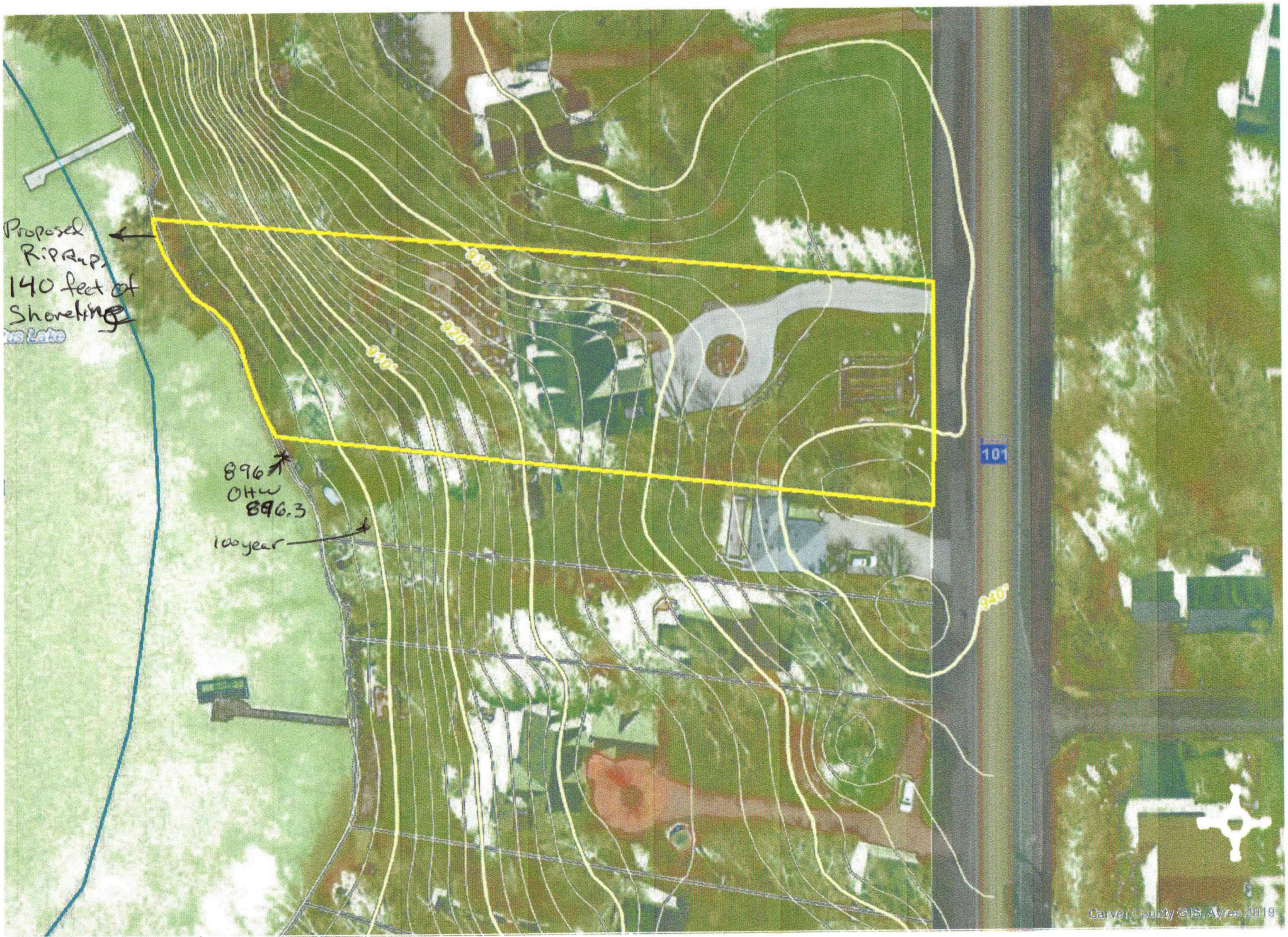
cc (via email):
Claire Bleser, RPBCWD administrator; Scott Sobiech, District Engineer; RPBCWD legal counsel; City of Chanhassen; Carver County Soil and Water Conservation District; MN DNR

Riprap Cross-Section Example

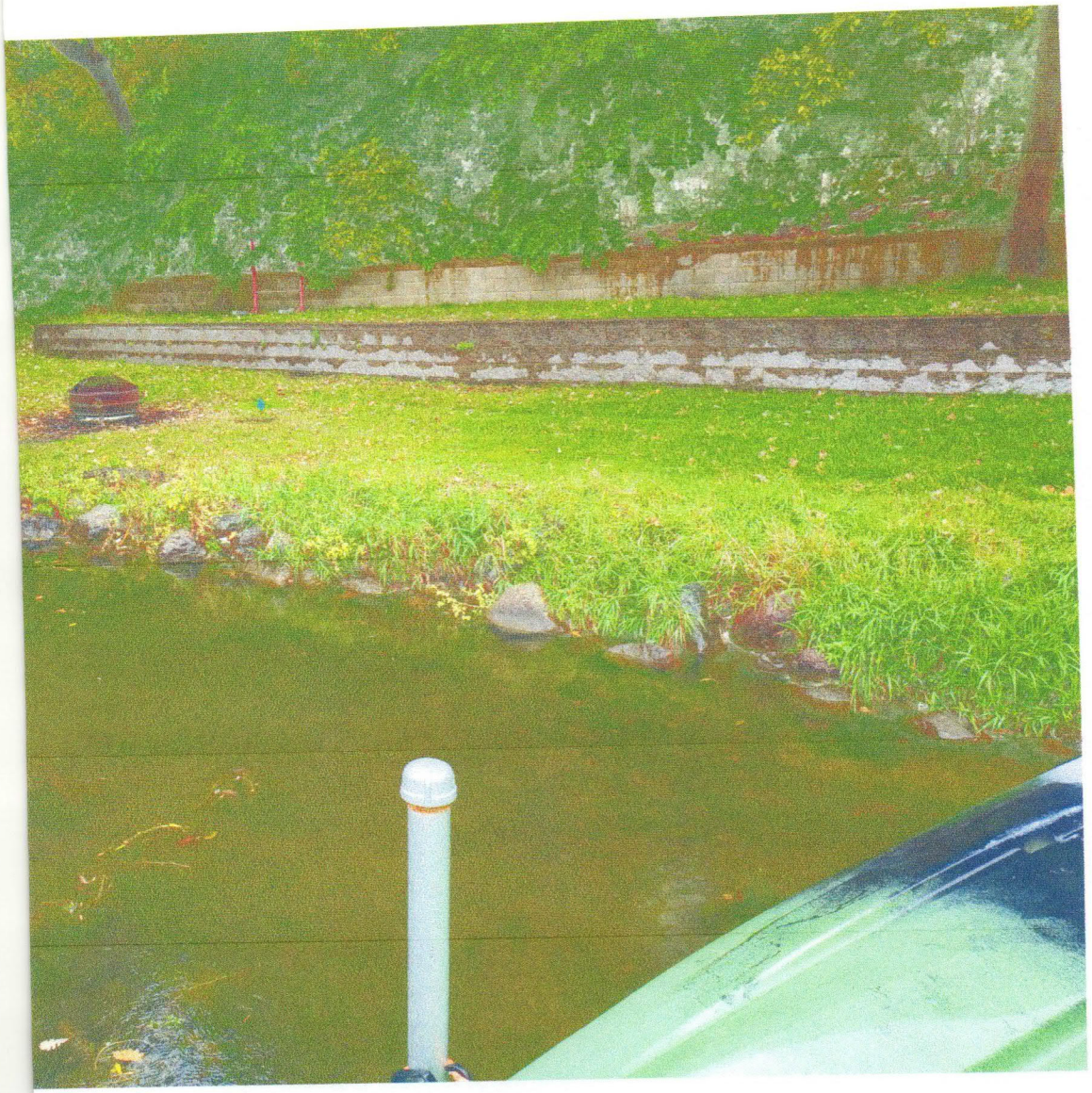
3 / Slope | 1

- 100 year Floodplain
- OHW Elevation
- Maximum 6 foot Waterward of OHW
- Finished Rip Rap 3:1 slope.
- Rip Rap no higher than top of Bank which is lower than 100 year flood plain.
- Average size Rock of 24"





- All work done over the Ice.
- Seed / erosion Blanket installed behind Rip Rap in disturbed areas.



Existing riprap shoreline indicating erosion prior to Construction.

RILEY PURGATORY BLUFF CREEK
WATERSHED DISTRICT

18681 Lake Drive East
Chanhassen, MN 55317
952-607-6512
www.rpbcwd.org

MEMORANDUM

TO: Board of Managers of the Riley Purgatory Bluff Creek Watershed District

FROM: Terry Jeffery, Interim District Administrator

DATE: December 8, 2021

RE: Engagement of MP&G Marketing for Outreach and Engagement with HCCI

RECOMMENDATION

Authorize Administrator to sign agreement, to be reviewed and approved by legal counsel, with MP&G to provide marketing for outreach and engagement with HOAs and faith-based organizations with a cost not to exceed $48,000.

BACKGROUND

The Hennepin County Chloride Initiative (HCCI) is a collaborative of all eleven watershed organizations in Hennepin County, the County, the Minnesota Pollution Control Agency, and many cities from across the county. HCCI members agreed to pool a portion of BWSR's Watershed Based Implementation Funds allocated in 2019 to collectively address chloride pollution. RPBCWD staff originally coordinated this project and the RPBCWD holds the grant with BWSR. For this reason, the contract with MP & G needs to be administered through RPBCWD. While RPBCWD staff continue to be active participants on HCCI, staff with Bassett Creek Watershed Management Commission now coordinates the project.

The HCCI funding (totaling $101,800) has been used on a variety of initiatives including a 2019 – 2020 study of the barriers to lower salt use which found that a lack of knowledge and education about the impacts of oversalting wasn't necessarily a barrier for salt applicators. Many winter maintenance professionals were aware of the need to minimize the use of salt but identified liability concerns and client demand as their largest barriers to adopting salt reduction strategies. Other HCCI-funded projects include development of Smart Salting for Property Manager's Guidebook, development of Winter Management Plan Templates, and the Parker's Lake Chloride Project Facilitation Plan.

Recently, HCCI members distributed a Request for Proposals (RFP) for professional marketing firms to develop a campaign targeting boards and committees with homeowners/town home associations and faith-based organizations. Knowing that these groups make decisions about property maintenance priorities, vendors, and budgets, engaging this group is an opportunity to build community capacity at a hyper-local scale. Boards and committees have interest and

RILEY PURGATORY BLUFF CREEK
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influence, and care deeply about their space. The members are generally there long-term, providing opportunities for relationship building with local leaders and culture-setting in their association and in the greater community. These boards and committees would, in-turn, influence property managers to hire the winter maintenance professionals who best match the property's needs and desires of the residents/members.

The RFP was sent to eleven firms; five proposals were received. Proposals were evaluated and scored by an HCCI subcommittee with a pre-determined evaluation matrix. The subcommittee discussed each proposal and interviewed the top two candidates. At their meeting on November 29th, the larger HCCI group approved the recommendation from the subcommittee to contract with MP+G Marketing Solutions to develop the campaign for a not to exceed amount of $48,000.

FINANCIAL IMPACT

This effort will be funded through the WBIF grant and will not add to RPBCWD financial obligation beyond administration of contract.

Attachments: Request for Proposal
MP&G Proposal
Agreement (under review by legal)

HENNEPIN COUNTY CHLORIDE INITIATIVE

A grant-funded project to reduce chlorides in water through a coalition of cities and watershed organizations in Hennepin County

REQUEST FOR PROPOSALS

Marketing Campaign

to Engage Homeowners Associations and Faith Based Communities on Proper Use of Winter Deicers

- A qualified respondent should review the attached specification and submit one (1) electronic copy of its proposal by 5:00 p.m. on or before Friday November 5, 2021 to:

  Laura Jester, Administrator
  Bassett Creek Watershed Management Commission
  c/o Keystone Waters, LLC
  16145 Hillcrest Lane
  Eden Prairie MN 55346
  Laura.jester@keystonewaters.com
  (952) 270-1990

- Questions regarding this request for proposal must be via email and must be received no later than end of day on October 22, 2021 to: laura.jester@keystonewaters.com

  Responses from Hennepin County Chloride Initiative will be communicated via e-mail to all recipients of this RFP on or before October 27, 2021.

- Contents of this Request for Proposals

I. Project Goals

- Develop a program that will engage, educate, and support citizen boards of condo and townhome associations and faith-based organizations (the "**audience**") in reducing the amount of winter deicing salt used on their properties. Implementation of the program should result in a shift in client demand toward a reduction in deicing salts, and the use of best practices by contracted winter maintenance crews for targeted properties.

- Develop a program that can be offered in two different formats. In most cases, the program will be facilitated and delivered by local trusted experts (for example city or watershed staff) through in-person meetings and activities (facilitated track). The complete framework for implementing the facilitated track is found in **Attachment A**. Program materials may also be utilized as a "self-serve track" by boards or committees without direct facilitation by experts.

- Identify appropriate messaging, materials and assessments through appropriate market research that will create a demand for behavior change by the winter maintenance professionals.

II. Project Background

Deicing salts are commonly used in northern climates to improve winter safety and improve driving and walking conditions. The overuse of these deicing salts (chlorides) has accelerated in recent years, and more and more of our rivers, streams and lakes have elevated concentrations of chloride. The chloride in salts can have negative impacts on the environment - particularly water resources, including drinking water. It only takes one teaspoon of salt to permanently pollute just five gallons of water such that it can no longer harbor freshwater aquatic life. Salt also causes premature and expensive damage to property including impacts to infrastructure, landscaping, and flooring. Once in the environment, there are limited options for treating or removing chloride from waters or soils – the most effective control is simply to use less.

As this issue has come to the forefront in the past few decades throughout the cold-weather States and Canada, cities, counties, states and other public institutions have taken numerous actions to limit the amount of road salt applied to streets and highways to the bare minimum needed. However, on private properties extra salt is routinely applied to roadways, parking lots and walks, usually to demonstrate that care was taken on property, even if that salt will never melt any ice. Although some salt is needed to maintain a safe winter environment, overuse has become a strategy to protect a property from liability lawsuits. We are seeking to educate property managers that more salt does not equal higher level of safety.

The Hennepin County Chloride Initiative (HCCI) is a collaborative of all eleven watershed organizations in Hennepin County, the County, the Minnesota Pollution Control Agency, and many cities from across the county. HCCI's goal is to reduce the amount of chloride entering our waterways from the overuse of winter deicing materials. While each of the HCCI members work in their own jurisdictions on this issue, the HCCI project uses Clean Water Funds through a state grant to collectively address this issue by pooling ideas and resources and promoting common messages and strategies, with an emphasis on private property owners and managers, from large retail centers to small properties or residences.

A 2019 – 2020 study by the HCCI found that knowledge and education about the issues with oversalting wasn't necessarily a barrier for salt applicators. Many winter maintenance professionals were aware of the need to minimize the use of road salt but identified liability concerns and client demand as their largest barriers to adopting salt reduction strategies. In discussing their concerns, many cited end-user demand as reasons for over application of salt- "we're only doing what our clients have told us to do."

This project aims to concentrate education and engagement activities regarding winter maintenance best practices to specific property types. Homeowners' associations, condo associations, and faith-based establishments have boards and committees that make decisions about property maintenance priorities, vendors, and budgets. Engaging this group is an opportunity to build community capacity at a hyper-local scale. Boards/committees have interest and influence, and care deeply about their space. The members are generally there long-term, providing opportunities for relationship building with local leaders and culture-setting in their association and in the greater community.

These boards/committees would, in-turn, influence property managers to hire the winter maintenance professionals who best match the property's needs and desires of the residents/members. These boards/committees could also work to change the demand by residents and members (the client demand). Our aim is to build a grassroots effort to change the paradigm about winter maintenance practices starting with where people live and worship, and then moving on to where they work and shop.

III. Scope of Services

The HCCI is soliciting proposals from professional marketing firms to develop a program/marketing campaign to realize the overall project goal (Section I). The final campaign materials will be utilized with citizen committees and boards of directors through one of two tracks: facilitated and self-serve (as described above). Facilitated presentations and discussions are envisioned to be in-person rather than through a virtual format and would be implemented through a complete framework (**Attachment A**).

The following products should be included in the marketing campaign or the development thereof:

a. Market research to identify messages, materials, and assessments that would be most effective with target audience, summarized in a document.

b. Program branding including a general assessment of existing and available materials from other programs for their fit into this program.

c. Direct mail recruitment letter/flyer/social media content.

d. Board Presentation - This would be used as the key initial meeting between the boards/committees and trusted experts. It needs to contain both presentation and question/answer/discussion formats. This meeting will set the scope and success of the program. The critical content and most effective delivery method should be identified.

e. Short video (5-minutes) (In some cases, the video may be utilized as a pre-meeting introduction if video viewing capabilities aren't available in meeting room)

    i. Interviews of local property managers with success stories where best practices are working and the benefits to budgets, infrastructure, landscaping, interior flooring without compromising safety

    ii. Interview with lawyer on liability issues

    Note: The HCCI has access to a wide variety of resources and individuals with success stories regarding this issue which can be utilized in the development of this program.

f. Ideas and designs for simple "take-home" giveaways (magnets, cups, pencils, etc.)

g. Ideas for reaching a broader audience through outreach by board members into their communities. This could be survey questions for residents/members to engage with broader group at the property to gage attitudes, beliefs, concerns, hopes. Or, it could be development of "train the trainer" guidance so board members can more easily convey information to broader audience.

The marketing firm shall provide the following within the proposal:

- A detailed approach for developing the marketing campaign to incorporate the products listed above and to coordinate with HCCI.
- Suggestions for additional elements in the program.
- A comprehensive timeline to complete the campaign.
- A cost not-to-exceed for all of the aforementioned services, broken down by product (a – g) as appropriate. Include hours and rates involved in completing each task.

IV. Timeline

This RFP will be conducted according to the following tentative schedule. This schedule may be altered at any time at the discretion of the HCCI.

Task	Expected Timeline
Release of RFP	Friday October 15, 2021
Deadline for Questions Regarding RFP	Friday October 22, 2021
Deadline for Submittal of Responses to RFP	Friday November 5, 2021; 5:00 p.m.
Interviews (Optional, at HCCI's discretion)	November 8 – 19, 2021
Selection of Contractor	Late November 2021
Execute Contract	Early December 2021
Project kick-off meeting with HCCI members	Early/Mid December 2021
Meet with HCCI to present draft program	End of March 2022
Initial program to piloted (using local staff) with two properties	April - May 2022
Meet with HCCI to review results of pilot presentations	Late May 2022
Program refined by marketing firm with results of pilot presentations	June - July 2022
Final and complete products delivered to HCCI	July 29, 2022

V. Budget

The development of the marketing campaign/program will be limited to an available budget of $50,000. HCCI will select the proposal that provides the best value, based on the understanding and responsiveness to this request for proposals.

VI. Instructions to Proposers

A. General Information

1. Submittal of Proposals

Proposers shall submit one electronic proposal to the address set forth on this RFP's cover page, bearing Proposer's name, address, and clearly marked as follows: Proposal for a Marketing Campaign for Hennepin County Chloride Initiative. **All proposals must be received no later than 5:00 p.m. Friday November 5, 2021**. Proposals received after this time shall be rejected. The HCCI reserves the right to accept or reject any or all proposals.

2. Proposal Format

Proposals shall be prepared with 8-1/2" x 11" format as a PDF. Index and bookmark proposal sections and sequentially number all pages throughout or by section. The proposal should be clear and understandable when printed in black and white. Examples of the Proposer's work products need not conform to the 8-1/2" x 11" paper requirement and should be in electronic format only (links to examples on websites are acceptable). All text and exhibits should be succinct and relevant to the RFP requirements.

3. Examination of RFP

By submitting a proposal, the Proposer represents that the proposer has thoroughly examined and become familiar with the work required under this RFP and that the proposer is capable of performing quality work to achieve the objectives of the HCCI.

4. Addenda/Clarifications

Any changes, if any, to this RFP will be made by the HCCI through a written addendum transmitted via e-mail. No verbal modification will be binding.

5. Pre-Contractual Expenses

Pre-contractual expenses are defined as expenses incurred by the Proposer in: 1) preparing its proposal in response to this RFP; 2) submitting the proposal to the HCCI; or 3) any other expenses incurred by the Proposer prior to the date of execution of the proposed agreement.

The HCCI shall not, in any event, be liable for any pre-contractual expenses incurred by the Proposers in the preparation of their proposals. Proposers shall not include any such expenses as part of their proposals.

6. Exceptions and Deviations

Any exceptions to the requirements in this RFP must be included in the proposal submitted by the Proposer. Segregate such exceptions as a separate element of the proposal under the heading "Exceptions and Deviations."

7. Contract Award

Issuance of this RFP and receipt of proposals do not commit the HCCI to award a contract. The HCCI reserves the right to postpone opening for its own convenience, to accept or reject any or all proposals received in response to this RFP.

8. Joint Offers

Where two or more Proposers desire to submit a single proposal in response to this RFP, they should do so on a prime-subcontractor basis rather than as a joint venture. The HCCI intends to contract with a single firm and not with multiple firms doing business as a joint venture.

9. Contact Person

The Proposer's sole point of contact with the HCCI for this proposal is Laura Jester. No contact regarding this RFP is to be made with other members of the HCCI, unless so directed by Ms. Jester.

10. HCCI Rights

The HCCI may investigate the qualifications of any Proposer under consideration, require confirmation of information furnished by the Proposer, and require additional evidence of qualifications to perform the work described in this RFP. The HCCI reserves the right to:

a. Reject any or all proposals.
b. Cancel the Request for Proposals;
c. Issue a subsequent Request for Proposals;
d. Remedy errors in the Request for Proposal;
e. Appoint evaluation committees to review proposals;
f. Establish a short list of 3 Proposers eligible for interview after evaluation of written proposals;
g. Negotiate with any, all, or none of the RFP respondents; and
h. Reject and replace one or more subcontractors.

B. Components for the Proposal

1. Letter of Transmittal

Address the letter of transmittal to the address on the cover page of this RFP and include, at a minimum, the following:

a. Identification of the offering firm(s), including name, address, and telephone number of each firm;
b. Acknowledgment of receipt of RFP addenda, if any;
c. Name, title, address, telephone and fax numbers, and email address (if any) of contact person during period of proposal evaluation;
d. A statement to the effect that the proposal shall remain valid for a period of not less than 90 days from the date of submittal; and
e. Signature of a person authorized to bind the offering firm to the terms of the proposal.

2. Proposer's Team Organization

Provide an organization chart showing the interrelationship of the Proposer's team members and key personnel. Identify the team members' areas of responsibility. Provide subcontractors' company name, address, contact person, and telephone number. Describe your previous experience working with each subcontractor.

3. Qualifications and Experience

Identify similar projects undertaken by the Proposer's team within the last five (5) years. Document the team members' actual responsibility on each project. Provide portfolios (links to online resources are acceptable) with examples of previous work, as appropriate. The subcontractors' project should be similar to the work they will perform on this project. For each project, provide the client's name, address and telephone number for a contact person currently available who is familiar with the firm's performance on each project listed. The contact person should be familiar with the firm's key personnel.

4. Key Personnel

For each of the key personnel shown in the organization chart, provide a one- to two-page résumé. A longer résumé may be used for the project manager. Include in the project manager's résumé a summary of experience with any specialization or expertise at the local, state and national level needed for the project.

5. Work Plan and Budget for Scope of Services

The proposal should demonstrate the Proposer understands of project goals. The proposal must include a clear description of the methods or process to be used to develop each component in the scope of services. In addition, the Proposer shall include a project schedule that details tasks, timelines and work products.

The Proposer shall provide a detailed budget for the proposed project. The budget should include each of the tasks/products in the scope of services and provide:

a. Professional fees, including hourly rates and number of hours to be worked per person
b. Direct expenses (equipment, supplies, etc.)
c. Contract labor
d. Travel and lodging
e. Other, as appropriate

6. Conflict of Interest

The Proposer must identify any potential conflict of interest it may have providing the services contemplated by this RFP.

VI. Evaluation of Proposals

Firms and their proposals will be evaluated on the following criteria. These criteria will be the basis for review and assessment of the written proposals and optional interview session. At the discretion of HCCI, interviews of the top-rated Contractors may be conducted.

The rating scale shall be from 1 to 5, with 1 being a poor rating, 3 being an average rating, and 5 being an outstanding rating.

QUALIFICATION	STANDARD	Score (1-5)
Scope of Proposal	Does the firm demonstrate an understanding of the project? Does the proposal address all elements of the RFP? Does the proposal show an understanding of the project goals and desires outcomes? Are there any exceptions to the specifications, Scope of Work, or agreement? Does the proposal provide examples of innovative engagement and marketing techniques? Can the target start and completion dates be met?	
Firm Capability	Does the firm have the resources, capacity and support capabilities required to successfully complete the project on-time and in-budget? Has the firm successfully completed previous projects of this type and scope?	
Assigned Personnel	Do the persons who will be working on the project have the necessary skills and qualifications? Are sufficient people of the requisite skills and qualifications assigned to the project?	
Project Approach & Marketing Research	Does the project approach seem appropriate to reach the target audience? Is there an understanding of how the final campaign will it fit into the overall framework as laid out in **Attachment A**? Is the proposed market research appropriate?	
Cost & Work Hours	Does the proposal include detailed cost break- down for each cost element as applicable and are the line-item costs competitive? Are the work hours presented reasonable for the effort required by each project task or phase?	

VII. Contract Terms and Conditions

The following terms and conditions, together with any necessary State requirements, shall be incorporated into the agreement with the successful proposer.

A. Term

The term of the contract to be awarded under this RFP is expected to commence in early December 2021 and end on date specified in the approved contract.

B. Contract

The selected Contractor would enter a contract with the HCCI fiscal agent: Riley Purgatory Bluff Creek Watershed District. The Contractor must be willing to sign a contract that has the terms set forth in the form of the contract (**Attachment B**).

The HCCI has the right to make any additions, deletions, changes and modifications to the form contract as it deems necessary, prior to the award of the contract.

Attachment A:
Framework for Engaging Resident and Faith-based Establishment Boards and Committees on Winter Maintenance and Chloride Pollution Reduction

Target Audience: Homeowners' associations, condo associations, and faith-based establishments have boards/committees that make decisions about priorities, vendors, and budgets. Engaging this group is an opportunity to build community capacity at a hyper-local scale. Boards/committees have interest and influence, and care deeply about their space. The members are generally there long-term providing opportunities for relationship building with local leaders and culture-setting in their association and in the greater community.

Goal: Reduce chloride at private properties which are managed by boards and committees (condo, townhomes, faith-based establishments).

RECRUITMENT

Outcome: Local groups identified and invited to participate in the program.

Steps

- LOCAL STAFF: Develop local list of homeowner's associations, condo associations, and faith-based establishments. Cities have this information available through relatively simple GIS queries. City Departments or Commissions may have a pulse on early-adopter candidates. Use City GIS inventory to generate list of names and addresses.
- Send letter (developed by MARKETING FIRM) for initial invite to groups to sign-up for the program.
- Use direct mail, social media, and/or other contact information if available to market the program. (Content developed by MARKETING FIRM)

ENGAGEMENT

Activity: Information shared with group through presentation (facilitated or self-serve).

Outcome: Key relationships established.

Steps

- LOCAL STAFF: Schedule an initial meeting with the board or committee. Plan for an hour or less. Determine a location with the applicable technology requirements (screen, projector if needed). Meeting may occur at the participant facility or a city facility.
- Inform. Introduce topic, impacts, cost, liability, best practices, myths, success stories, etc. Use messages, materials, presentations, videos produced by MARKETING FIRM.
- Learn. Lead facilitated discussion on site-specific challenges and opportunities. Lead optional field/site walk. Use discussion topics produced by MARKETING FIRM.

Package some materials so groups may self-serve if they prefer or if a facilitated option is unavailable. Offer to host online or to provide electronic or printed materials via email request.

ADAPTIVE MANAGEMENT

Outcome: Facility profile one-pager created.

Outcome: Action items selected, and stakeholders commit to take action.

Outcome: Technical support offered.

Outcome: Measure and monitor, refine and adapt. Continuous, incremental improvement.

Steps – Performed by LOCAL STAFF

- After the initial engagement, create a facility profile. Summarize the current snow and ice management program. Describe opportunities and challenges, things that are working and things that are not working. Make recommendations, as appropriate, for actions the group might consider to measure, monitor, refine, and adapt to reduce their chloride use. Include a map.
- Review the draft profile with the group.
- Make plans/pledge to consider actions. At a minimum make plans to reconnect and reevaluate the following year.
- Offer technical assistance/resources/advice/site visits as appropriate.
- Invite the group to join the community of practice.

COMMUNITY OF PRACTICE

Outcome: Cohort established.

Outcome: Investment in key relationships.

Outcome: Word-of-mouth recruitment.

Steps Performed by LOCAL STAFF

- Once or twice per year newsletter. Share training links, general advice, success stories, common questions (and answers), news you can use, facility profiles, owner interviews, etc.
- Annually reach out to groups that have gone through the program (mail, email, phone). Share the latest facility profile and iterate updates as needed. Update activities, actions, scope new opportunities, renew pledge. Offer support.
- Refresher presentations as needed as groups turnover.
- Celebrate/recognize progress.
- Welcome new interest and enroll as schedule allows.

EVALUATION

Outcome: Annual evaluation of program, materials, and outcomes.

Steps Performed by LOCAL STAFF

- Humbly observe what's working and not working.
- Incorporate new technology/best practices.
- Request input from participants.
- Implement changes.

Attachment B:

SERVICES AGREEMENT BETWEEN
RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT and
XXXXXXXX

This Agreement is entered into between the Riley Purgatory Bluff Creek Watershed District, a public body with powers set forth at Minnesota Statutes chapters 103B and 103D (RPBCWD), and the , a private Minnesota corporation ("CONSULTANT"). In consideration of the mutual terms and conditions set forth herein, including the obligations of mutual consideration, the sufficiency of which is hereby acknowledged, RPBCWD and CONSULTANT agree as follows:

1. Services

CONSULTANT will perform the work described in the Scope of Services dated _____, 2021, attached hereto as Exhibit A and incorporated herein ("the Services"). The RPBCWD, at its discretion, in writing may suspend work immediately or amend the Services to delete any task or portion thereof. The RPBCWD will compensate for authorized work by CONSULTANT on a task deleted or modified by the RPBCWD in accordance with Paragraphs 5 and 6.

2. Independent Contractor

CONSULTANT is an independent contractor under this Agreement. CONSULTANT will select the means, method and manner of performing the Services. Nothing herein contained is intended or should be construed to constitute CONSULTANT as the agent, representative or employee of the RPBCWD in any manner. Personnel performing the Services on behalf of CONSULTANT will not be considered employees of the RPBCWD and are not entitled to any compensation, rights or benefits of any kind from the RPBCWD.

3. Subcontract and Assignment

CONSULTANT will not assign, subcontract or transfer any obligation or interest in this Agreement or any of the Services without the written consent of the RPBCWD and only in accordance with any conditions of that consent.

4. Standard of Care; Indemnification

CONSULTANT will perform the Services with due care and in accordance with applicable professional standards. CONSULTANT will indemnify, defend and hold harmless the RPBCWD, its board members, employees and agents from any and all actions, costs, damages and liabilities of any nature to the degree they are the result of CONSULTANT's negligence, including professional negligence, or other action or inaction by CONSULTANT that is the basis for CONSULTANT's liability in law or equity.

5. Compensation

The RPBCWD will compensate CONSULTANT for the Services in accordance with Exhibit A. Invoices are to be submitted no more frequently than monthly. Payment for undisputed work is due within 30 days of receipt of invoice.

The RPBCWD will not make final payment until CONSULTANT has provided proof of compliance with state income tax withholding requirements pursuant to Minnesota Statutes § 270C.66.

CONSULTANT will maintain the books, records, documents, and accounting procedures and practices relevant to this Agreement for a minimum of six years for examination by the RPBCWD or the state auditor.

6. Term and Termination

This Agreement is effective when fully executed by the parties. It terminates on **XXXXXXXX**, unless earlier terminated as set forth herein.

The RPBCWD may terminate this Agreement at its convenience, by a written termination notice stating specifically what prior authorized or additional services CONSULTANT is to complete. CONSULTANT will receive full compensation for all authorized work performed, except that CONSULTANT will not be compensated for part performance of any task identified in Exhibit A if termination is due to CONSULTANT's material breach of this Agreement.

7. No Waiver

Notwithstanding any other term of this Agreement, the RPBCWD waives no immunities in tort. This Agreement creates no right in and waives no immunity, defense or limitation on liability with respect to any third party.

8. Insurance

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

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

B. Workers' compensation: in accordance with legal requirements applicable to CONSULTANT.

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

9. Compliance with Laws

CONSULTANT will comply with the laws and requirements of all federal, state, local and other governmental units in connection with performing the Services, and will procure all licenses, permits and other rights necessary to perform the Services.

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

10. Data

All data obtained or generated by CONSULTANT in performing the Services, including documents in hard and electronic copy, software, and all other forms in which the data are contained, documented or

memorialized, are the property of the RPBCWD. CONSULTANT retains a nonexclusive license to use the materials and may publish or use the materials in its professional activities.

Any CONSULTANT warranty under this agreement does not extend to any party other than the RPBCWD or to any use of the materials by the RPBCWD other than for the purpose(s) for which CONSULTANT is compensated under this Agreement.

11. Data Practices; Confidentiality

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

12. Equipment and Supplies

CONSULTANT will provide all equipment and supplies used in performance of the Services.

13. Continuation of Obligation

Insurance obligations; warranties and obligations to defend, indemnify and hold harmless; and requirements concerning preservation and maintenance of documents will survive completion of the Services and the term of this Agreement.

14. Notices

Any written communication required under this Agreement to be provided in writing will be directed to the other party as follows:

To RPBCWD:

Administrator
Riley Purgatory Bluff Creek Watershed District
14500 Martin Drive, Suite 1500
Eden Prairie MN 55344

To CONSULTANT:

Either of the above individuals may in writing designate another individual to receive communications under this Agreement.

15. Whole Agreement

The entire agreement between the two parties is contained herein and this Agreement supersedes all oral agreements and negotiations relating to the subject matter hereof. Any modification of this Agreement is valid only when reduced to writing as an amendment to the Agreement and signed by the parties hereto.

16. Time Is of the Essence

Time is of the essence in performing the Services.

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

Consultant	**RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT**
By_____	By_____
Its_____	Its_____
Date:	Date:
	APPROVED as to FORM & EXECUTION
	_____
	RPBCWD Attorney

Exhibit A
Scope of Services

MARKETING SOLUTIONS
"Building Resilient Brands!"

November 5, 2021

PROPOSAL:
Marketing Campaign for

HENNEPIN COUNTY CHLORIDE INITIATIVE

PREPARED FOR
Laura Jester | Administrator
Bassett Creek Watershed Management
Commission c/o Keystone Waters, LLC
16145 Hillcrest Lane
Eden Prairie MN 55346

PREPARED BY
MP+G Marketing Solutions
Mary Pat McNeil | Owner | Minnesota Water Steward
24087 Pine View Road, Pierz MN 56364
mp@mpgmarketingsolutions.com
mpgmarketingsolutions.com
(612) 483-2302

Proposal for a Marketing Campaign
FOR HENNEPIN COUNTY CHLORIDE INITIATIVE
to Engage Homeowners Associations and Faith Based Communities
on Proper Use of Winter Deicers

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Dear Laura Jester,

Thank you for the invitation to provide this proposal for this project for HCCI, an initiative which is critical for Minnesota's waterways. We are eager to begin engaging, educating, and supporting citizen boards of condo and townhome associations and faith-based organizations to reduce the amount of salt used for deicing. Your Request for Proposals does a thorough job communicating your marketing needs. Other than the responses to RFP questions, **we have received no addenda to the RFP.**

The firm offering this proposal is:
MP+G Marketing Solutions
24087 Pine View Road, Pierz, MN 56364
Phone: (612) 483-2302
Fax: (none)
Contact: Mary Pat McNeil, Owner
Email: mp@mpgmarketingsolutions.com

The contact person during proposal evaluation is:
Mary Pat McNeil, Owner
MP+G Marketing Solutions
24087 Pine View Road, Pierz, MN 56364
Phone: (612) 483-2302
Fax: (none)
Email: mp@mpgmarketingsolutions.com

As a Minnesota Water Steward, I am familiar with this important issue; I volunteered at the 2014 Clean Water Summit and the 2015 Road Salt Symposium.

The experience provided an inside perspective on how various water partners worked on similar issues. I also gained insights into how the road salt industry—from bigger businesses and mom and pop shops to the actual drivers—was handling the issue of oversalting. Since that time, I have seen programs reach out to get everyday people involved. There are many good ideas already in place, yet a more concerted effort is definitely the course to take.

We have the qualifications, competence, and capacity to provide the services you request. I have more than 25 years of experience in strategic marketing communications and engagement services with twelve years specifically focused on environmental, educational, and government agency communications; Danie Watson has more than 20 years of experience in public sector communications specializing in solving health, sustainability, and safety challenges for national, state, and local entities. Our team includes Greg Smith, creative director, and Jake Sturgis and Rod Rassman, videographers, who also have environmental, government agency, and public sector experience. We are passionate about the environment.

We want to help HCCI's influence grow. And to see its mission come to life!

The following proposal shall remain valid for a period of 180 days from November 5, 2021, the date of submittal. We look forward to speaking with you further.

Sincerely,

Owner MP+G Marketing Solutions

MP+G MARKETING SOLUTIONS

Your Experienced Team

ABOUT US

MP+G is a virtual agency. Our team brings clients more value by providing years of experience combined with high-quality expertise and low overhead. We provide our environmental clients with rich experience in effective communications with community stakeholders, and a passion for your mission - we are Minnesota Water Stewards and are passionate about the environment. MP+G is a certified, woman-owned business, targeted vendor for the State of Minnesota, and a Constant Contact Solution Provider.

HCCI PROJECT ORGANIZATIONAL CHART

Mary Pat McNeil – Project + Branding Lead

Owner of MP+G Marketing Solutions, LLC., an award-winning brand and marketing communications business. Her 25+ year background marries a unique combination of brand strategy, advertising, public relations, promotions, licensing, retail, e-commerce, and nonprofit marketing experience bringing a broad and deep perspective to her work. From developing strategies and integrated campaigns to rolling up her sleeves and writing content, her work has helped "move the needle" for clients.

Mary Pat has partnered with **Greg Smith** since 2006 as the lead Creative Director at MP+G Marketing Solutions. **Mary Pat** and **Danie Watson** have shared passions for environmental and educational initiatives. We have partnered on several marketing campaigns and research projects for clients, including the Minnesota Department of Education and the Minnesota School Boards Association. **Mary Pat** has hired **Jake Sturgis** for video services for multiple school district referendum and branding projects including the Minnesota School Boards Association and the Arbor Month "Get your daily dose of trees" marketing campaign for the

Minnesota DNR. **Mary Pat** has hired **Rod Rassman** as a videographer for several school district referendum projects.

Contact: Mary Pat McNeil, she/her/hers
Owner
MP+G Marketing Solutions
24087 Pine View Road
Pierz, MN 56364
(612) 483-2302

Greg J. Smith – Creative Director

Greg is Creative Design Strategist at MP+G and is an award-winning marketer, creative director, and graphic designer experienced on both the agency and corporate sides of the business. He has worked for numerous ad agencies with a variety of clients ranging from manufacturers to retailers to franchised fast food restaurant chains. Most recently his work has focused on educational, environmental, and nonprofit organizations.

Greg's work for International Dairy Queen earned him the marketer of the year award. His comprehensive new brand identity system for Minnesota School Boards Association helped them win the National School Boards Association Innovation Award. Greg has created winning campaign logos for over two dozen school districts across the state of Minnesota. He is a Minnesota Water Steward.

Greg Smith collaborates with **Mary Pat** as the lead Creative Director at MP+G Marketing Solutions.

Contact: Greg Smith, he/him/his
Creative Director
MP+G Marketing Solutions
24087 Pine View Road
Pierz, MN 56364
(612) 483-2302

OUR PARTNERS

We partner with top consultants who are experts in their fields to provide creative solutions for your business.

Danie Watson – Research + Strategist Partner

Expertise:
President of The Watson Group Marketing, Danie is a communications researcher, behavioral strategist, message/brand developer, writer, and content planner with a passion for community engagement and inclusion. For more than two decades she has specialized in solving health, sustainability, and safety challenges for local and national entities. Danie delivers the need-to-know intelligence clients seek to define audiences, guide decision making, build a shared messaging strategy, and shape effective outreach. Among other projects, Danie is currently working with 11 diverse community organizations to implement evidence-based, culturally-driven tobacco prevention plans (communications, evaluation, and work plans) over a six-year grant cycle for the Minnesota Department of Health Tobacco-Free Communities program.

Danie and **Mary Pat** have been like-missioned colleagues for years, and began working together in 2019. They have partnered together on several marketing campaigns and research projects for clients, including the Minnesota Department of Education and the Minnesota School Boards Association.

Contact: Danie Watson, she/her/hers
President
The Watson Group Marketing
1559 Eagle Lane
Mound, MN 55364
(612) 306-9577

Jake Sturgis – Video Partner Option #1

Expertise:
Jake Sturgis, founder, Captivate Media brings nearly 20 years of experience in education and storytelling. After working directly in school PR for over a decade, he launched Captivate Media 2014. His work has garnered national attention, leading to multiple awards and public speaking engagements on visual storytelling and authentic student engagement. He received his accreditation in public relations (APR) in 2013, and recently served as president of the Minnesota School Public Relations Association.

Jake has built a team of communication pros that have worked with non-profits, government agencies and school districts nationwide to draw out authentic voices and build up communities through storytelling.

Mary Pat has partnered with **Jake** and his team on many projects, including creating the compelling Arbor Month #31DaysOfTrees videos for the Minnesota Department of Natural Resources aimed at getting millennials to opt outside and celebrate their relationship with trees, as well as a number of winning school referendum campaigns including Chatfield, Cleveland, Inver Grove Heights, and Pierz School Districts and the brand launch video for Minnesota School Boards Association.

Contact: Jake Sturgis, APR, he/him/his
Founder + CEO
Captivate Media
755 Florida Ave. S Suite #D1,
Golden Valley, MN 55426
(612) 314-3314

Rod Rassman – Video Partner Option #2

Expertise:
Eight-time Emmy award winning television reporter Rod Rassman started Rassman Media Group in 2004. Since then, Rassman Media Group has been creating branded video content, instructional videos, social media videos, strategic messaging and other visual content for a variety of large corporations and non-profits throughout Minnesota. Its clients include Children's Minnesota, Minneapolis Heart Institute Foundation, Ridgeview Medical Center,

Medtronic, Cargill, Andersen Windows, Post Consumer Brands, Knutson Construction and many others.

As storytellers, Rassman Media understands the importance of creating content for the Hennepin County Chloride Initiative that clearly explains the initiative, highlights the benefits and advocates for its success.

MP+G Marketing Solutions has chosen **Rassman Media Group** as its partner for video storytelling services, animation, voiceover, live-action videography, and aerial imaging for successful school district referendum projects including Watertown-Mayer and Red Rock Central Public Schools.

Contact: Rod Rassman, he/him/his
Owner + Videographer
Rassman Media Group
1008 Barbary Circle
Waconia, MN 55387
(612) 799-7646

QUALIFICATIONS AND EXPERIENCE

Our business focus is working with organizations connected to education and the environment, so when you presented this opportunity with the Hennepin County Chloride Initiative, we were eager to submit our qualifications.

Passion, enthusiastic leadership, curiosity, and a collaborative spirit are just a few of the soft skills we can bring to HHCI.

OUR PHILOSOPHY
MP+G Marketing Solutions believes that success is in the results. And beauty is in the details. We believe it is critically important to recognize the value of strategy in any marketing campaign.

STRATEGY IN ITS SIMPLEST TERMS:
- Clearly defining your organization's mission and vision
- Identifying specific target audiences and desired outcomes
- Making recommendations designed to appeal to those audiences to achieve the desired results

We are an experienced strategic marketing, branding, and communications team that digs deep to understand your needs and knows how to develop a marketing campaign that will appeal to and motivate your audience – and is designed to deliver results.

OUR APPROACH
We strive to create strong, strategic partnerships of mutual respect and trust with our clients. Our best work happens when we are able to truly serve as your partner. We pride ourselves on spot-on strategy, clean, fresh design and clear, concise content that engages stakeholders, and compels advocates to action. We make good use of resources and believe in finding solutions, not problems.

OUR PROMISE
To leverage assets, listen deeply to diverse voices, encourage consensus, provide a clear strategic direction, and deliver an innovative marketing campaign that will help HCCI engage stakeholders to protect, manage and improve water resources. In other words, to bring the HCCI mission to life!

MP+G Marketing Solutions

"Building Resilient Brands!"

Relevant Work Samples

The Strategic Branding, Marketing Communications + Engagement Pros

Metro Blooms - Blue Thumb Planting for Clean Water®
Mary Pat McNeil: account project/manager, brand strategist, copywriter
Greg J. Smith: creative director
Kristen Peterson: design

Minnesota Department of Natural Resources - Forestry Division
Mary Pat McNeil: account/project manager, campaign strategist, media relations, copywriter, co-script writer
Greg J. Smith: creative director and design
Kristen Peterson: design
Jake Sturgis: videographer, co-script writer
Jason Sem: search consultant social media campaign

Minnesota School Boards Association
Mary Pat McNeil: account/project manager, marketing strategist, copywriter, co-script writer
Greg J. Smith: creative director and designer
Kate Wisser: brand strategist
Danie Watson: project lead for policy research
Jake Sturgis: videographer, co-script writer

Kaleidoscope Charter School
Mary Pat McNeil: account/project manager, marketing strategist, copywriter
Greg J. Smith: creative director
Kate Wisser: brand strategist
Kristen Peterson: design
Jake Sturgis: videographer, co-script writer

Environmental Projects and Campaigns

Metro Blooms / Blue Thumb — Planting for Clean Water®

READY & RESILIENT

A multi-channel communications strategy and media campaign promoting community Resilient Yards Workshops focusing on what makes a yard resilient and how that interconnects with protecting our waterways and providing food for pollinators. (2017) **View Project >**

THUMBS UP! and DIG IN

Event branding, communications, partners' information packets and website homepage improvements for Finest On Earth™ Partner Recognition Events. (2016-17) **View Project >**

WHAT WILL YOU DO WITH YOUR ONE WILD AND PRECIOUS YARD?

Strategy and design for educational signage on growing your own resilient yard and the benefits of healthy soil. (2018) **View Video >**

RESILIENT YARDS

Strategy and design for educational signage on the benefits of growing a resilient yard. (2017)
View Project Post >

GOING NATIVE

State Fair Eco Exhibit strategy and design for educational signage on the benefits of planting native plants. (2016) **View Project Post>**

Case Study Minnesota Department of Natural Resources

A Daily Dose of Trees

PR and Marketing Campaign for Arbor Month

GOALS

In our first year's campaign, the goals were based on garnering publicity and securing placements, interviews and video clips in the local print and broadcast media. In our second year, **MP+G** introduced social media to the mix and helped deliver the DNR's first social media marketing campaign. In our third year, our goal was to focus on getting millennials to engage in the Arbor Month message.

OBJECTIVES

Develop a targeted social media campaign to millennial Minnesotans to create awareness of the DNR Arbor Month key messages featuring the health benefits of trees by promoting participation in a 31-days of trees challenge.

MNDNR #31 DaysOfTrees Challenge Social Media Campaign

A PRESCRIPTION FOR SUCCESS

MP+G developed a targeted social media campaign that included memes and video clips for Facebook and Twitter, and advertisements for Facebook and Instagram. The videos focused on stories from millennials about how trees have improved their health. The **#31DaysOfTrees campaign** challenged millennials to experience trees each day in May. Participants were tracked on social media and entered a drawing to win prizes.

CLIENT

MN Department of Natural Resources works with citizens to conserve and manage the state's natural resources, to provide outdoor recreation opportunities, and to provide for commercial uses of natural resources in a way that creates a sustainable quality of life.

GET YOUR DAILY DOSE OF TREES

for a healthy you and me

DELIVERABLES

- Detailed communications plan
- Celebratory theme graphic + tagline
- Imaginative infographic poster (endorsed by the MN Department of Health)
- Targeted media relations campaign–pitches, press releases, media kits
- Spot-on social media campaign
- Dynamic video series
- Facebook, Twitter, Instagram memes + ads
- Effective hashtag
- User-centric landing page
- Event banners
- Comprehensive project analytics summary

A WINNING PROGNOSIS

"MP+G helped bring the "Get Your Daily Dose of Trees" Arbor Month campaign to a new level. They understood our millennial target audience and how to capture their attention. Their testimonial videos of other millennials talking about how trees have improved their health was effective and engaging. MP+G went beyond expectation to keep the campaign on track, moving forward, focused, and successful. I recommend using MP+G to help with your marketing campaign."

Jennifer Teegarden
Forestry Outreach Specialist
MN DEPARTMENT OF NATURAL RESOURCES

Case Study Minnesota Department of Natural Resources

PR and Marketing Campaign for Arbor Month

Click on the image to view the video

Click on the image to view the video

HEALTHY RESULTS

The *"Daily Dose of Trees for a Healthy You and Me"* campaign exceeded expectations and was so successful, the DNR agreed to **MP+G's** suggesion to repeat the campaign concept the following year.

The next year, **MP+G's** strategic placement of social media ads over six weeks used a limited budget to make **577,000 impressions** resulting in **5,023 clicks** and **15,000 video views; increased page likes by 114;** and **900 entries** for the 31-day challenge. Impressive numbers for a government agency's first-ever social media campaign.

View all the Videos >

Left: *MN DNR's dynamic video series. Personal "importance of trees" stories told by millennials working in environmental professions gives the 31-day challenge an engaging edge.*

ABOUT THE MARKETING SOLUTIONS TEAM

MP+G Marketing Solutions, LLC

"Building Resilient Brands!

MP+G Marketing Solutions *provides cost-effective marketing solutions. Known for her creative voice and vision,* ***Mary Pat McNeil*** *helps organizations tell their unique story and engage their communities by delivering compelling brand strategy and marketing campaigns. MP+G's work has been on the receiving end of several industry awards at the state and national levels.*
Call: *612.483.2302* ***Email:*** *mp@mpgmarketingsolutions.com*
Web: *mpgmarketingsolutions.com*

Case Study Minnesota School Boards Association

Where Minnesota School Boards Learn to Lead

Brand Strategy, Brand Identity System, Research, Marketing Communications Plan & Implementation

GOALS

1. To ensure MSBA continues to provide significant value to its members and is relevant not just today but well into the future. **2.** To align the strategic planning with all brand touch points. **3.** To position MSBA in the marketplace as the "go-to" organization.

OBJECTIVES

Develop a brand strategy that can serve as a filter and lens for organizational decision-making — define what and how MSBA communicates.

MSBA Powerpoint Title Slide Banner Image

STRATEGIES & TACTICS

Guided staff though a rigorous rebranding process using the proprietary **Learn It. Launch It. Live It!™** approach.

Learn It. Conducted brand discovery workshop to uncover perceptions of brand attributes and brand personality. Reviewed prior internal research that provided insight into the brand, conducted 1-on-1 interviews with external stakeholders. Conducted competitive review. Developed brand positioning statement, brand promise, brand personality, key messages, tagline options and new identity system. Trained the staff on use of brand strategy.

Launch It. Performed communications audit. Prepared phased communications plan. Developed media relations, communications and promotion tactics to support the plan. Advised on an internal and external launch.

Live it! Instructed staff how to use brand guidelines to help make decisions about eliminating work activities that do not support the new brand position. Recommended aligning new activities that deliver on the brand promise; updating all communication touch points to reflect the brand strategy; rewarding staff member behaviors that support the brand strategy; ways to measure effectiveness of brand communication in changing the perceptions of MSBA.

CLIENT

The Minnesota School Boards Association, a leading advocate for public education, supports, promotes and strengthens the work of public school boards. MSBA was founded in 1920 and is the eighth-oldest school board organization in the U.S.

DELIVERABLES

- Brand strategy: position, brand promise, + brand personality
- Key messages + tagline
- Identity design + brand style guide
- Communications strategy + implementation plan
- Marketing materials: print + digital
- Social media + Video
- Website home page redesign
- Market research for key policy issue

MSBA
Minnesota School Boards Association

BEFORE

msba
MINNESOTA SCHOOL BOARDS ASSOCIATION
Where School Boards Learn to Lead

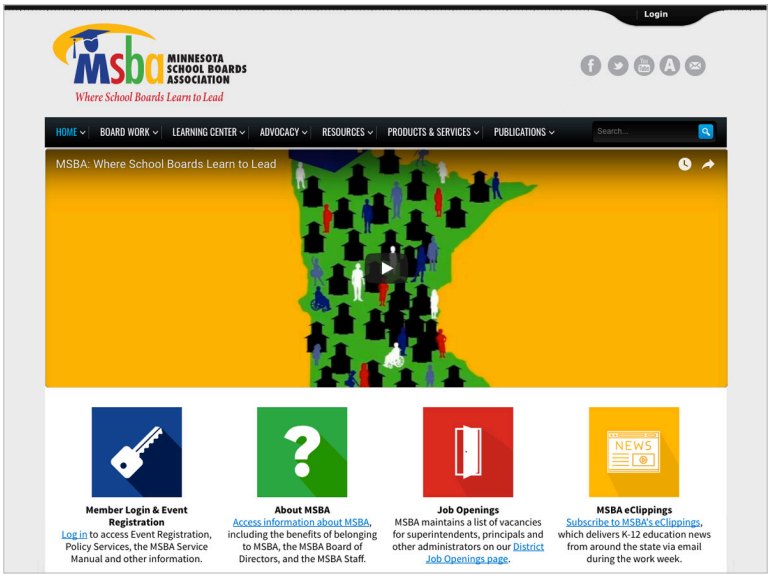
AFTER

"MP+G are great listeners, they've taken a wide variety of input and done a really good job of focusing in and helping us re-position our organization for the future. They pushed us outside of our comfort zone and helped us to get to a place that is enlightened and sustainable. They've done quality work and we're excited to launch the NEW MSBA Brand."

Kirk Schneidawind, Executive Director

Case Study Minnesota School Boards Association

Brand Strategy, Brand Identity System, Research, Marketing Communications Plan & Implementation



www.mnmsba.org

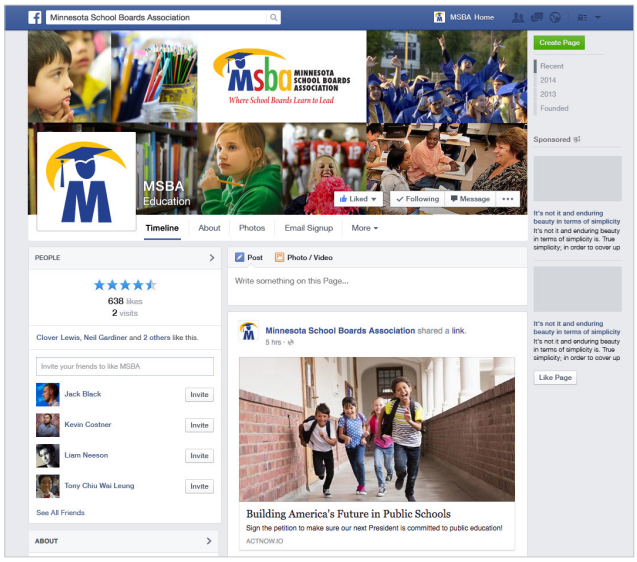
RESULTS

Award-winning Work: Minnesota School Boards Association is winner of the **NSBA 2016 Innovation Award** for pursuit of innovation to affect student outcomes. "Its strategic plan and new brand strategy significantly enhance its position as the go-to public education organization in the state."

MSBA's new branding in action. *Top left is the MSBA website with re-branding applied to its homepage with engaging, informative video, and cleaner organization of content.*

Below: *MSBA's Twitter and Facebook pages use photos and colors that reflect the brand. Header images were designed to effectively introduce the new MSBA brand through social media channels.*

twitter.com/mnmsba



www.facebook.com/mnmsba

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Web: *mpgmarketingsolutions.com*

THE WATSON GROUP
Marketing Communications

Danie Watson *is a market researcher, behavioral strategist, message/brand developer, and content planner with a passion for community engagement and inclusion. Danie delivers the need-to-know intelligence clients seek to develop targeted messages and strategies, and to shape effective outreach.*

The Watson Group is a State of Minnesota Certified Professional and Technical Services Master Contractor through the State Director of Management Analysis and Development (MAD), and is certified as a woman-owned business in Minnesota.

Case Study Kaleidoscope Charter School

Education. *Reimagined.*

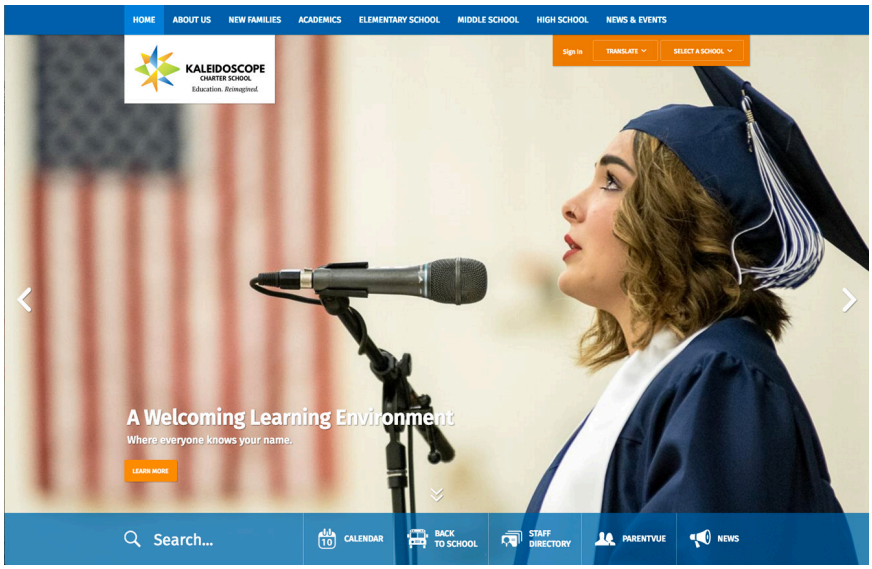
Brand Strategy, Brand Identity System, Marketing Communications Plan + Implementation

GOALS

1. Develop a distinctive brand that is immediately identifiable from neighboring districts. **2.** Shape and define Kaleidoscope's image. **3.** Develop a communications plan that focuses on retention and can be implemented by internal staff. **4.** Reinforce the new strategic plan, identify measurable goals and the means to track progress against brand and enrollment objectives.

OBJECTIVES

Develop a brand strategy that serves as a filter and lens for district decision-making – create a communications plan to define what and how Kaleidoscope communicates. Assist with implementation of key marketing tactics including: signage, website, social media, video, email marketing, operational and back-to-school materials. Kaleidoscope parents and potential parents will be aware of tangible benefits for their family and students who are attending or plan to attend grades K-12.



Kaleidoscope District School website: www.kcsmn.org

STRATEGIES & TACTICS

Guided Staff Through the Brand Discovery Process: Conducted a brand discovery workshop to uncover brand attributes.

Secondary and Primary Research: Reviewed all research provided by the staff and conducted 20+ individual surveys among key stakeholders.

Redefined the Brand: Developed brand positioning statement, brand promise, brand personality, key messages, tagline options and new identity system for the district, its schools, and athletics program.

Initiated Our Learn It. Launch It. Live it!™ Process: Provided guidance to the superintendent, director of teaching and learning, principal and team of administrators through the three key steps of operationalizing the brand.

CLIENT

Kaleidoscope Charter School is a caring community of educators that embrace each student's unique talents and motivates them to emerge as confident and curious contributors to the world. Kaleidoscope educates **600 students** annually, with class sizes limted to 24 and a **14 to 1 ratio** of students to licensed teachers.

Kaleidoscope Charter School

BEFORE

KALEIDOSCOPE
CHARTER SCHOOL
Education. *Reimagined.*

AFTER

DELIVERABLES

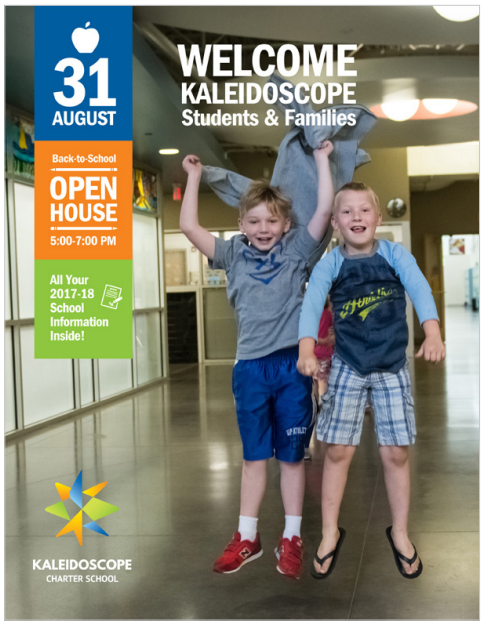
- Brand strategy: position, brand promise, + brand personality
- Key messages + tagline
- Identity design + brand style guide
- Communications strategy + implementation plan
- Marketing materials: print + digital
- Social media
- Videos
- Website redesign

"M+G worked closely with our administration team to help define who we are and what differentiates us from other school districts. They really listened to us and got to know what makes us unique in the educational market-place - developing a brand strategy and identify that truly reflects our personality. They partnered with us to quickly get us up to speed and ready to live the Kaleidoscope brand in time for the new school year."

Brett Wedlund, Superintendent

Case Study Kaleidoscope Charter School

Brand Strategy, Positioning, Identity System, Marketing Communications Plan & Implementation



Kaleidoscope Back to School Packet

STRATEGIES & TACTICS (continued)

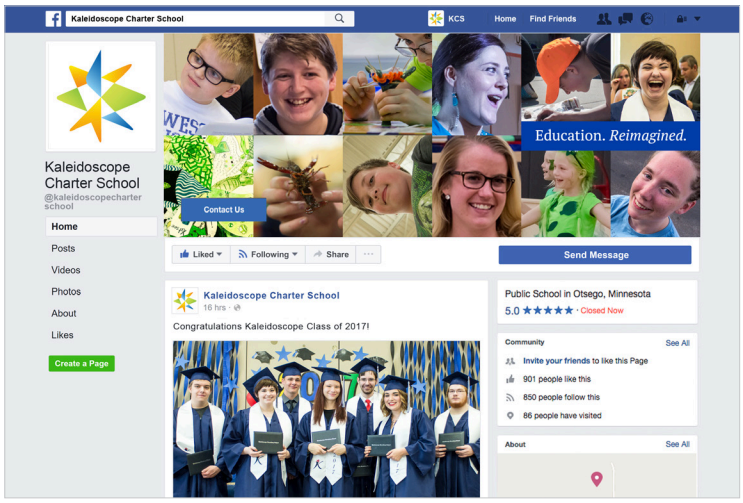
Learn it. Familiarized Staff with New Brand Promise and Key Messaging: Demonstrated how the new strategy and identity were derived from who and what Kaleidoscope already was to a direction that would support the mission and vision in a way that differentiated them from their competition.

Launch It. Media Relations, Communications, and Promotion: Performed a communications audit and prepared a phased communications plan following the Learn it. Launch it. Live it!™ model and identified key tactics for implementation.

Live it! Communications Tactics and Measurement: Creating new channels for sharing information, utilizing new and existing communications tools to work harder: district website with three school sites, ***Why Choose Kaleidoscope?*** promotional videos, email communications and social media plan, back-to-school and operational materials, and suggestions for implementing effectiveness measures.

RESULTS

New Branding Launched with Website Go Live!: September 5, 2017.



www.facebook.com/kaleidoscopecharterschool

Kaleidoscope District School Promotional Video

View all the Videos >

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MP+G: Client Kudos I Projects + Campaigns

LONG-TERM IMPACT

"Over the past three years MP+G has been ***our go-to resource*** *for Metro Blooms/Blue Thumb's marketing efforts. They developed a strategic communications plan, several* ***successful strategies*** *for promoting our organization and programming, and identified and clarified our key messaging -* ***giving it strength and consistency.*** *Mary Pat worked with our staff to* ***improve the impact*** *of our Minnesota State Fair Eco Exhibit, developed a unique look for our online communications from website to social media, and created a valuable range of digital assets for our staff and partners to reuse. Without a doubt, we could not have achieved all of these accomplishments without MP+G Marketing Solutions' expertise."*

Rebecca Rice | Executive Director
METRO BLOOMS I BLUE THUMB ~ PLANTING FOR CLEAN WATER®

STRENGTHENING COMMUNITY RELATIONSHIPS

"MP+G created a distinctive, custom campaign for our referendum, they helped us better understand our audience and developed a sound informational campaign strategy to reach our goals. ***The district's relationship with the community is stronger now than before*** *the election and our community is better informed and better prepared to meet the needs of our students."*

Stephen Jones | Superintendent
LITTLE FALLS COMMUNITY SCHOOLS

REMARKABLE RESULTS

"MP+G helped bring the second year of the **"Get Your Daily Dose of Trees"** *Arbor Month campaign to a new level. They understood our target audience, millennials, and how to capture their attention. Their idea of making testimonial videos of millennials talking about how trees have improved their health was effective and engaging. MP+G went 'beyond expectation' to keep the campaign on track, moving forward, focused, and successful. MP+G's strategic placement of social media ads over six weeks used a limited budget to make* ***577,000 impressions;*** *resulting in* ***5,023 clicks*** *and* ***15,000 video views;*** *increased page likes* ***by 114;*** *and* ***900 entries*** *for a 31-day challenge. Impressive numbers for a government agency. I recommend using MP+G to help with your marketing campaign."*

Jennifer Teegarden | Forestry Outreach Specialist
MINNESOTA DEPARTMENT OF NATURAL RESOURCES

INSIGHTFUL RESEARCH

"We needed to learn the views of our membership to guide decision making on an important policy issue. **Danie Watson and Mary Pat McNeil** *were essential in gently and inclusively moving us forward.* ***Their research gave us the insight we needed to shape our policy position*** *that reflects our membership, the students we serve, and the communities that we lead."*

Kirk Schneidawind | Executive Director
MINNESOTA SCHOOL BOARDS ASSOCIATION

MP+G: Client Kudos I Projects + Campaigns

EFFECTIVE STRATEGY

"MP+G Marketing provided communication and marketing strategy for our high school facility bond election that passed after having failed only one year ago. Mary Pat was ***tireless in her efforts*** *to aggressively develop effective strategies in a variety of mediums (print, video, website, email, social media) that were very well received by the public and critical in the passage of our project. Especially in light of a very unusual campaign season (November of 2016) there is no doubt in my mind that MP+G was* ***crucial to the success of our election. I highly recommend her."***

Edward J. Harris | Superintendent
CHATFIELD PUBLIC SCHOOLS

BEST PRACTICES: ON TRACK + FOCUSED

*"****MP+G used best practices based on their extensive experience.*** *When I say they are persistent in their approach it might be misconstrued as a negative – but let me assure you, in my view it was a positive. Everything they did had a purpose and everything they did worked. Let's face it referendums are a boatload of work not just for superintendents but for everyone involved – from support staff to your citizens group. Their persistent guidance served as a reminder of the importance of this referendum and the fact that if it doesn't pass, my job becomes that much more difficult.* ***They kept me on track and focused. And they delivered a win.*** *Without question I'd hire them again."*

Bill Adams | Superintendent
JANESVILLE-WALDORF-PEMBERTON SCHOOL DISTRICT

IMPROVED CAMPAIGN EFFECTIVENESS

"Working with MP+G, the Labor Standards unit of the Minnesota Department of Labor and Industry accomplished a successful public education campaign around the laws we oversee. The four-month campaign resulted in almost ***10,000 new user visits to the Department's website and hundreds of unique phone and electronic communications.*** *MP+G's expertise guided campaign decisions that* ***continuously improved the effectiveness of our messaging,*** *throughout our experience working with them."*

Dave Skovholt | Outreach Coordinator
MINNESOTA DEPARTMENT OF LABOR AND INDUSTRY

PROMPT, EFFICIENT, + ACCOMODATING

"MP+G brought a great deal of experience to the billboard campaign she completed for the Anoka-Hennepin School District. Mary Pat was extremely thorough in all phases of the project, which ***resulted in an end product that was a credit to Anoka-Hennepin.*** *Bravo! Mary Pat is prompt, efficient and accommodating. She is a joy to work with!"*

Mary Olson | Director of Communication (retired)
ANOKA-HENNEPIN SCHOOL DISTRICT

DISTINCTIVE BRANDING

"MP+G Marketing Solutions created a distinctive brand for the city's developer communications. *Their eye-catching marketing package and memorable* ***"Dig into Mound"*** *graphics and tagline helped us to get a fresh new look and attracted new interest in the project."*

Kandis Hanson | City Manager (retired)
CITY OF MOUND, MINNESOTA

PROJECT WORK REFERENCES

Jennifer Teegarden | Cooperative Forest Management Outreach Specialist
Minnesota Department of Natural Resources | Division of Forestry
500 Lafayette Rd, St. Paul, MN 55155
jennifer.teegarden@state.mn.us
Work: 651-259-5285

Becky Rice | Executive Director
Metro Blooms | Blue Thumb–Planting for Clean Water®
3747 Cedar Ave, Minneapolis, MN 55407
becky@metroblooms.org
612.865.0248

Brett Wedlund | Executive Director (formerly Kaleidoscope Charter School)
Nova Classical Academy
1455 Victoria Way, St. Paul, MN 55102
bwedlund@novaclassical.org
Work: 651.209.6320

Kirk Schneidawind | Executive Director
Minnesota School Boards Association
1900 Jefferson Ave, St Peter, MN 56082
kschneidawind@mnmsba.org
Work: 507-934-2450

See Team Resumes - Pages 24-31

Our Process

WORK PLAN AND BUDGET

DISCOVER The goal of this phase is to gather the information necessary to build a framework for thinking about, talking about, and doing the work.

Market Research
The market research will begin with a clear definition of audiences, research goals, and research questions. In addition to the condo and townhome association and faith-based organization board members, we recommend adding property managers to the audience list; property management companies routinely research, vet, and recommend vendors to HOA boards, and so become *de facto* decision makers for many associations and organizations. The Minnesota Multi-Housing Association is a possible partner in identifying research participants for this audience.

Next, we will work with HCCI to identify potential research participants, draft an invitation letter, and invite participants. Danie Watson and Mary Pat McNeil will develop structured interview guide(s) in collaboration with HCCI. The guides will be structured to uncover the thoughts, feelings, opinions, and experiences of participants. Danie plans to conduct individual phone interviews with participants, but focus groups may also be considered, depending on the consensus view of clients and the team. Mary Pat will assist.

Detailed notes will be taken, and/or interviews will be transcribed, budget permitting. Danie will analyze the data for themes and key messages, as well as benefits and barriers to voluntary behavior change, and needed promotional materials.

Danie will provide a report with research findings and guidance for HCCI decision making. The research process and report will emphasize strategies for measurable behavior change.

POSITION Develop a brand platform and marketing campaign plan that supports the HCCI vision and serves as a guide for effective communications to the diverse target audiences.

Program Branding
From the findings uncovered in the research process, and from a communications audit of the existing partner materials, we will develop a brand platform for the program. The brand platform will include a positioning statement, personality traits, key messages and a brand promise. Once this platform has been refined and approved by the key stakeholders, we will develop a brand identity - tagline and logomark - for the campaign.

Campaign Strategy
The campaign strategy will evolve from the research and brand strategy work. It will outline the steps for the launch process

LAUNCH Create an implementation plan and recommendations for specific communications and engagement tactics, including print, video, and social media and other tactics that arise as options throughout the process. The following tactics would be included:

Recruitment Letter
The key messaging from the brand platform will provide the direction, tone and manner, while the market research and communications audit will help to inform the format, design of the recruitment letter, social media and other marketing tactics we will choose to reach our three key target audiences: HOAs, faith-based organizations, and property management companies.

Board Presentations
Informed by the market research, and conveying the new brand identity, we will develop two PowerPoint presentations: one for HCCI members to use when presenting to boards, and one for boards to use as a self-guided presentation. Both will include a separate Q&A guide for addressing frequently asked questions that may arise during presentations. We will access the existing photo library for visuals. Length and content of the presentations will be determined in collaboration with HCCI.

Short Video(s)
One 5-minute explainer video for presentations along with two 30- to 60-second social media clips will be developed to promote the program to the target audiences. The video scripts will be aligned with the key messaging and program branding that stems from the research findings and brand strategy process. Videos may include interviews with current HCCI members, Minnesota Water Stewards, and other partners, along with property managers, HOA and faith-based community members who are currently practicing best practice salting methods or are interested in implementing a program. Interviews will also include a knowledgeable legal counsel to address the liability issues.

Giveaways
MP+G has over 15 years' experience developing highly effective promotional products for the Star Tribune and General Mills. If deemed appropriate, giveaways will be selected based not only on their ability to deliver the HCCI message and branding appeal, but also their compatibility with sustainable environmental best practices.

EVALUATE Review feedback from the pilot presentations and employ other measures to determine success rate and what can be improved. Make adjustments and re-evaluate in a timely manner. Formulate and refine outreach tools for the community based on these trial presentations.

Community Outreach Tools
Strategies and materials for reaching a broader audience will come out of the research and pilot board presentations, we will develop additional tools for boards to use in community outreach. Resident/member engagement materials could include surveys, handouts, and train-the-trainer guides.

HCCI Budget Overview					
Task	**Deliverable**	**Staff**	**Hours**	**Rate**	**Subtotal**
A. Market research: Identify messages, materials, and assessments. Conduct key informant interviews, analyze data, craft strategy for behavior change, and develop shared messaging platform across audiences.	Written report	Danie Watson Mary Pat McNeil	80 20	$120/hr.	$12,000
B. Program branding: Assessment of existing materials and program branding, and create brand name, slogan, and identity	Brief assessment report and graphic designs for program brand	Mary Pat McNeil Greg Smith	30 60	$120/hr.	$ 10,800
C. Recruitment letter: Write materials for recruitment of boards	Letter, flyer, and social media posts	Mary Pat McNeil Greg Smith	5 20	$120/hr.	$ 3,000
D. Board presentations	PowerPoint for facilitated presentations, PowerPoint for self-guided presentations, Q&A formats	Mary Pat McNeil Danie Watson	37.5 15	$120/hr.	$ 6,300
E. Short video: Plan, script, shoot, and edit video of content and interviews that tell the program story	One five-minute overview video, and two 30–60 second social media videos	Mary Pat McNeil CONTRACT LABOR: Jake Sturgis OR Rod Rassman	20 80	$120/hr.	$ 12,000
F. Ideas and designs for giveaways	Ideas and designs for giveaways	Mary Pat McNeil Greg Smith	2.5 10	$120/hr.	$ 1,500
G. Tools for boards to use in community outreach: Strategy and materials for reaching a broader audience	Resident/member engagement materials TBD, such as survey or train-the-trainer guide	Mary Pat McNeil Greg Smith Danie Watson	5 10 5	$120/hr.	$ 2,400
H. Project management	Meetings, logistics, and keeping the project on track	Mary Pat McNeil Danie Watson			Included
I. Travel and lodging					None
Total Estimate					**$48,000**

TIMELINE

Project kick-off meeting with HCCI members — Early/Mid December 2021

Market Research — 6 weeks — December 2021–January 2022
- Identify messages, materials, and assessments
- Primary and Secondary research includes:
    - Conduct key informant interviews, analyze data
    - Draft strategy for behavior change, and
    - Develop shared messaging platform across audiences

Client Meeting to establish consensus in market research findings
- Brief assessment report

Program Branding — 4–5 weeks — January–February 2022
- Mini communications audit includes:
    - Review of existing materials and program branding
    - Brand platform, brand position, key messages, brand personality and promise

Client Meeting to present brand platform gain consensus
- Creating brand name, slogan/tagline, and identity/logo mark
- Graphic designs for program brand

Program development — 4 weeks — February–March 2022
Recruitment Letter / Materials
- Letter
- Flyer
- Social Media posts
- Email marketing

5-minute video — 6–8 weeks — February–March 2022
- Plan, script, shoot, and edit

Ideas and designs for giveaways — 2 weeks — February–March 2022
- Criteria
- Product Concepts
- Pricing estimates
- Design

Meet with HCCI to present draft program — End of March 2022

Board presentations — 4 weeks — March–April 2022
- PowerPoint for facilitated presentations,
- PowerPoint for self-guided presentations,
- Q&A formats

Initial program to piloted (using local staff) with two properties — April–May 2022

Tools for boards to use in community outreach — April–May 2022
Strategy and materials for reaching a broader audience

Meet with HCCI to review results of pilot presentations — Late May 2022

Program refined by marketing firm with results of pilot — June–July 2022

Final and complete products delivered to HCCI — July 29, 2022

CONFLICT OF INTEREST

At present we are aware of no conflicts of interest on the part of MP+G Marketing Solutions, or any of our partners, related to this Request for Proposals. If any were to arise during the completion of a contract for these services, we would promptly notify HCCI.

SUMMARY

Spot-on strategy separates us from the competition. It's what moves the needle versus just being a clever, flash-in-the-pan campaign. The strategic communications planning and marketing campaigns we have done with *Minneapolis Park and Recreation Board,* the *Minnesota Department of Natural Resources, Metro Blooms, Blue Thumb–Planting for Clean Water®, Just Wind® Community Wind Farm*s, multiple school districts across the region, non-profits, and numerous high-profile consumer product companies have been the basis for solid, transformational results for our clients.

We make good use of resources — yours, ours and the environment — and provide solutions for your branding, marketing, and communications needs. We create strong, strategic partnerships with our clients. Partnerships built on mutual respect and trust. When we are truly your partner that's when our best work happens.

We welcome the opportunity to offer our strategic marketing campaign services to HCCI.

KEY PERSONNEL - RÉSUMÉS

MARY PAT MCNEIL

24087 Pine View Road
Pierz, Minnesota 56364
612.483.2302 c

facebook.com/MPGMarketingSolutions
linkedin.com/in/marypatmcneil
mpgmarketingsolutions.com

Award-winning
BRAND + MARKETING COMMUNICATIONS PROFESSIONAL
"Building Resilient Brands!"

Strategic Insight | Creative Voice + Vision
Print + Digital | Social Media Fluency

"Mary Pat understood our target audience, millennials, and how to capture their attention. Her idea of making testimonial videos of millennials talking about how trees have improved their health was effective and engaging. She went beyond expectation to keep the campaign on track, moving forward, focused, and successful."
Jennifer Teegarden | Forestry Outreach | Minnesota Department of Natural Resources

"Working with MP+G, the Labor Standards unit of the Minnesota Department of Labor and Industry accomplished a successful public education campaign around the laws we oversee. The four-month campaign resulted in almost 10,000 new user visits to the Department's website and hundreds of unique phone and electronic communications. MP+G's expertise guided campaign decisions that continuously improved the effectiveness of our messaging."
Dave Skovholt | Outreach Coordinator | Minnesota Department of Labor and Industry

PROFESSIONAL EXPERIENCE

MP+G MARKETING SOLUTIONS—Pierz, Minnesota **2006-Present**
Owner

Provide strategic counsel and innovative branding and marketing content solutions to a variety of clients. Services include brand strategy, media relations, market research, content strategy, social media management, website development, marketing campaigns; tactics, including e-mail, newsletters, advertising, blogs, collateral, and presentations. A Constant Contact Solution Provider, certified woman-owned business, and targeted vendor for the State of Minnesota.

A selected client list includes:

• **Department of Natural Resources Forestry Division**—*marketing and media relations campaign:* 2015 -2017 annual Arbor Month marketing campaign included strategic communications plan, theme and tagline creation, media relations, press and marketing materials, social media campaign with five feature videos.

• **Metro Blooms | Blue Thumb – Planting for Clean Water®**—*served as the primary marketing agency: developed a strategic communications plan, marketing campaign strategies for promoting the organization and programming, identified and clarified key messaging, worked with staff to improve the impact of Minnesota State Fair Eco Exhibit, a unique look for signage, website, email and social media, and created a valuable range of marketing materials for staff and partner use.*

• **Minneapolis Parks + Recreation Board**—*developed marketing communication plans and campaigns:* including media kits, news releases, signage and webpages for MPRB initiatives including sustainability surveys, Arbor Month partnerships with Minnesota DNR Forestry, and Webber Park – the first public swimming pool in North America to have a natural filtration system using plants from a nearby pond, rather than chemicals, to treat the water.
• **Minnesota School Boards Association**—*brand strategy, marketing plan and identity:* discovery, market research, strategic communications plan, key messaging, tagline and logo development, social media strategy and staff training, launch video; annual survey development: creative brief, survey invitation, question development, and analysis; focus group facilitation and research.
• **University of Minnesota College Readiness Consortium**—*email marketing campaign:* strategy, key messages, tagline, template design, staff training, contact management, content direction, and execution.
• **Minnesota Department of Labor and Industry**—*Google ads and search marketing campaign:* for the 2019 Wage Theft Outreach Project, developed overall strategy, key messages, ad campaign to serve as a pilot for future campaigns, placed and optimized Google search and display ads for a 3-5-month period, provided DLI staff training for successful self-implementation of future campaigns.
• **Anoka-Hennepin Public School District + Anoka Ramsey Community College**—*marketing billboard campaign:* strategy, student research, communications plan, creative brief, key messages, billboard concepts, creative and photo direction, and copywriting.
• **City of Brooklyn Park, Edinburgh, USA**—*brand campaign:* discovery, strategy, market research including focus groups, interviews, surveys and competitor analysis, key messages, tagline, identity refresh, advertising and strategic communications and engagement plan, billboards, and social media.
• **Westonka School District**—*served as Director of Marketing + Community Relations:* marketing strategy and brand identity, strategic communications plan and materials, research, focus groups, website redesign, e-newsletter, mascot, multimedia, advertising, media relations, online pressroom, social media launch and on-going marketing campaigns.

COUGHLAN COMPANIES—Bloomington, Minnesota **2005-2006**
Sr. Marketing Communications Manager
Strategically aligned and developed marketing communications department for two publishing companies: Picture Window Books and Compass Point Books. Responsible for brand design, print and interactive advertising, media relations, newsletters, promotions, catalogs and sales collateral, trade shows, and websites. Received accolades from the sales force and Vice President of production for new catalog designs.

GENERAL MILLS—Golden Valley, Minnesota **2002-2004**
General Manager, Employee Services
Recruited by General Mills to extend the brand experience through employee services. In the first year, enhanced the equity products program and grew it by over 50%. In 2004, won an Eagle Award, General Mills' highest achievement award.

EDUCATION Bachelor of Arts degree: English and Spanish; Minor, Graphic Design Magna cum Laude—St. Cloud State University, St. Cloud, Minnesota

Graduate Studies: Media Relations, Marketing, Mini-Masters of Marketing Management, Mini-Masters of Business Communication—University of St. Thomas, Minneapolis, Minnesota

Certificate: Accelerated Spanish—University Language Center, Minneapolis, Minnesota

Organizations/Positions: Minnesota School PR Association (MinnSPRA), Constant Contact Business Partner, 2014 Clean Water Summit Minnesota Landscape Arboretum volunteer, 2015 Road Salt Symposium Fresh Water Society volunteer, 2015 Minnehaha Creek Watershed District Master Water Steward Program participant, 2015 Master Gardener annual conference guest speaker, MSBA Leadership Conference Workshop Speaker 2018-2019, MinnSPRA Good Trouble School Communicators 2021

Awards: Printing Industries of America Awards, International Newspaper Marketing Association (INMA) Award, General Mills Eagle Award, five MinnSPRA and five National School Public Relations Awards, two MAGC Northern Lights Awards

Certifications: Minnesota certified woman-owned small business, State of Minnesota targeted vendor, Constant Contact Solution Provider, Minnesota Water Steward

MINNESOTA WATER STEWARDS
Community Leadership for Clean Water

Greg J. Smith

Creative Director + Production Specialist

PROFILE: Creative Director with a 30-year background in design, production, and implementation of in-store merchandising programs for retailers across the country. Solid background in all areas of printing from creative to post-production.

MP+G Marketing Solutions 2002 to Present
Creative Director | Designer
Job Responsibilities: Provide strategic direction for brand and content, as well as design for advertising, marketing collateral, and trade show presentations to a variety of clients.

Graphic Systems, Inc. 2007 to 2014
Sales + Production | Post-Production Specialist
Job Responsibilities: in-store merchandising program sales, Fotoba operator, overseeing quality control (color, front-to-back registration, and substrate imperfection) and maintaining final count for shipping. Secondary Responsibilities: Zund operator, AGL operator, Durst RHO operator, and in-house carpenter as well as a host of finishing duties from poll pockets to easels.

Greg Smith Carpentry 2002 to 2007
Finish Carpenter
Responsibilities: Whole-house trim-outs: doors, windows, cabinets, stairs & railings, floors, etc. Custom cabinet builder & designer.

International Dairy Queen 1987 to 2002
Director, Creative Services
Job Responsibilities: Managing department of four design and production specialists, developing merchandising and point-of-sale materials for over 5,000 Dairy Queen franchise outlets, 600 Orange Julius outlets, 200 Karmelkorn outlets as well as all corporate printed publications and communications.

Appointments and Honors
- Marketer of the Year, International Dairy Queen
- 4-time Soldier of the Month

Education
Alexandria Vocational Institute | Graduated 1972

Military Service
U.S. Army, Artillery Senior Assembly Specialist /
Honest John Rocket System | Served 1972-1974

MINNESOTA WATER STEWARDS
Community Leadership for Clean Water

Danie Watson

HEALTH AND SUSTAINABILITY COMMUNICATIONS SPECIALIST

WATSON GROUP MARKETING | Mound, MN
Owner | Lead Researcher | Creative Director | 1994–Present
Danie is a communications researcher, behavioral strategist, message/brand developer, and content planner with a passion for community engagement and inclusion. For more than two decades she has specialized in solving health, sustainability, and safety challenges for local, state, and national entities. Danie delivers the need-to-know intelligence clients seek to define audiences, guide decision making, build a shared messaging strategy, and shape effective outreach.

In her consulting work, clients value her talent for translating research into strategy and creative; her experience working with diverse communities; and her ability to recommend interventions, media channels, marketing tools and evaluation measures best suited to reaching the target audience, on message and within budget. She approaches projects collaboratively, and seeks to discover and engage the strengths of all team members.

Danie is currently working with 11 diverse community organizations to implement evidence-based, culturally-driven tobacco prevention plans (communications, evaluation, and work plans) over a six-year grant cycle for the Minnesota Department of Health Tobacco-Free Communities program.

The Watson Group is a State of Minnesota Certified Professional and Technical Services Master Contractor through the State Director of Management Analysis and Development, and is certified as a woman-owned business in Minnesota.

HIGHLIGHTED PROJECTS
Minnesota Chamber of Commerce, Energy Smart and Waste Wise Programs
Promotion of energy conservation and waste reduction. Strategic marketing of program services to businesses, government agencies, and nonprofit organizations designed to encourage, facilitate, and promote actions and investments that reduce energy use, and minimize business waste.
Contact: Jill Curran, former Program Director, (home address is private), (651) 500-9572

Minnesota School Boards Association
Research to guide public policy position. Market research on the views of MSBA's membership needed to guide decision making on an important policy issue. Conducted focus groups, analyzed data, and presented findings and key messages.
Contact: Kirk Schneidawind, Executive Director, 1900 West Jefferson Avenue, St. Peter MN 56082, (507) 934-2450

SELECTED CLIENT LIST
Public Health, Sustainability, and Public Policy

- Centers for Disease Control and Prevention, Atlanta:
  - Office of Global Health, Sustainable Management Development Program
  - Division of Global Migration and Quarantine, U.S.-Mexico Unit
  - National Center for Emerging and Infectious Disease
  - Division of Environmental Hazards and Health Effects

    - National Center for Injury Prevention and Control
    - Division of Adolescent and School Health
    - Division of Vector-borne Infectious Disease
    - National Center for Birth Defects and Developmental Disabilities
- Minnesota Department of Health
- Minnesota Environmental Protection Agency/Office of Environmental Assistance
- Minnesota Department of Education
- University of Minnesota, School of Public Health
- Robert Wood Johnson Foundation (RWJF)
- RWJF Turning Point Program
- Alaska Division of Public Health
- California Divisions of Public Health and Public Safety
- Colorado Department of Health
- Kansas Public Health Foundation
- Kentucky Public Health Leadership Institute
- Maine Department of Health/Medical Care Development
- New York Department of Health/HCRI
- Randolph Hospital, North Carolina
- South Carolina Hospital Association
- Virginia Department of Health

Nonprofit Organizations

- NorthPoint Health & Wellness
- Minnesota School Boards Association
- Three Square Food Bank, Nevada
- Minnesota Coalition Against Sexual Assault
- Second Harvest Heartland, Minnesota
- Baylor University Medical Center, Dallas

Business Organizations

- Cities Management, Sustainable Property Managers
- Minnesota Chamber of Commerce, Energy Smart Program

ADDITIONAL WORK EXPERIENCE

Ah-ha! Design Group | Minneapolis, MN, 1993–1994 | Managing Director
Kroll Ontrack | Eden Prairie, MN, 1990–1993 | Marketing Director, International and Domestic
Richard Scales Advertising | St. Paul, MN, 1987–1990 | Senior Account Executive
Energy Office, City of Minneapolis |1983–1984 |Neighborhood Energy Workshop Program

EDUCATION

University of Minnesota, Graduated 1982, Bachelor of Fine Arts in Theater, Minor in Italian
Minneapolis College of Art and Design, 1995-96, Continuing Education in Design
Languages: Italian and German

JAKE STURGIS, APR

3931 Leslee Curve, Excelsior, MN 55331
(612) 245-2300 | jake@captivatemedia.us

EDUCATION

UNIVERSITY OF WISCONSIN-SUPERIOR
B.S., Mass Communication, Speech Communication minor
Graduation: May 2002 *Magna Cum Laude*, GPA- 3.8

EXPERIENCE

CAPTIVATE MEDIA + CONSULTING, Golden Valley, MN
Owner & CEO (Jan. 2014 – Present)
- Oversee all business and communications functions of business
- Provide strategic communications counsel for clients and business

MINNETONKA PUBLIC SCHOOLS, Minnetonka, MN
Visual Communications Coordinator (Sept. 2005- Jan. 2014)
- Write, shoot, edit and produce video projects for internal and external communications
- Create and manage written and visual content on District website
- Monitor and create content on social media websites
- Provide strategic direction for electronic communications in District

HOPKINS PUBLIC SCHOOLS, Hopkins, MN
Video / Supervisory Paraprofessional Hopkins West Junior High (Sept. 2002-Sept. 2005)
- Assist in supervision of students to maintain a safe school environment
- Monitor student computer use from a remote computer system
- Teach students and staff in the use of video and computer equipment
- Assist with troubleshooting problems with video and computer systems

LAKE MINNETONKA COMMUNICATIONS COMMISSION, Spring Park, MN
Production Assistant (September 2002-December 2002)
Production Coordinator (April 1999-September 1999)
- Produced, edited, directed and hosted various community television programs
- Scheduled and managed playback of shows for two public access channels
- Managed staff of production assistants
- Taught classes on how to use technology to create television shows

KBJR-TV, NBC, Duluth, MN
Producer "News 6 on Fox 21" (October 2000-May 2002)
- Built newscast to specific brand and demographic
- Principal writer of newscast
- Wrote nightly topical teases to promote newscast
- Produced other shows as necessary

Promotions Intern (May 2001-September 2001)
- Produced, edited and voiced television spots promoting station-sponsored events
- Edited spots for upcoming shows on station
- Wrote nightly promotional spots for 5pm, 6pm and 10pm newscasts

ROD RASSMAN

1008 Barbary Circle, Waconia, MN 55387
Phone: 612.799.7646 | E-mail: rod.rassman@gmail.com

QUALIFICATIONS

In addition to being an Emmy Award winning local television news reporter for 17-years, I have hosted and/or narrated shows for Animal Planet, Discovery Channel, National Geographic Channel and ESPN.

Since 2004, I have used my story telling abilities to shooting and editing branded video content for corporations and non-profit organizations like Cargill, Andersen Windows, Post Consumer Brands, Knutson Construction, Children's Minnesota, Minneapolis Heart Institute Foundation and many more.

The other part of my business is to create real-life media training scenarios for defense contractors like General Dynamics and Booz-Allen-Hamilton.

I have traveled as far away as Kuwait, conducting media training for troops heading to Iraq, Afghanistan and Kosovo.

WORK HISTORY

2004-present **President, Rassman Media Group, Minneapolis**
Shoot, edit and oversee all aspects of video production for this full-service video production company

2006-present **Subject Matter Expert, Sub-Contractor for General Dynamics**, Conduct media training, role-play reporting crews and create mock newscasts.

1998-2004 ***General Assignment Reporter, KSTP-TV Minneapolis***
Enterprise, write and deliver news stories for the 5, 6 and 10pm newscasts, frequent live reports. A wide range of story subjects. Award winning stories in Spot News, Hard News, Soft Feature, Sports and In-Depth.

May 2003-February 2004 ***Freelance Reporter, National Geographic Channel***
Enterprise, write and deliver news stories for the television program "National Geographic Today."

1999-2001 ***Narrator & Producer of K-9 to 5, Discovery Channel***
Chosen by the Discovery Channel to narrate three seasons of the international television program *K-9 to 5 on Animal Planet*. Wrote and produced many of the stories for shows.

1995-1998 ***Reporter/Bureau Chief, WTAE-TV Pittsburgh***
Enterprise, write and deliver news stories for the 5, 6 and 11pm newscasts.

1989-1995 ***Anchor/Reporter, WKOW-TV Madison, Wisconsin***
Anchored morning program, weekly political program, general assignment reporter

1987-1989 ***Reporter/Photographer, WAOW-TV Wausau, Wisconsin***
General assignment reporter

EDUCATION

Bachelor of Science, St. Cloud State University 1986

AWARDS

- 9 Emmy awards for best writing (2), best reporter (2), feature (4), Sports (2)
- 2 Edward R. Murrow Awards, Best Writing and Sports Reporting
- 7 Telly Awards, (a National Award for Excellence in Video Production)

		Scope of Proposal Does the firm demonstrate an understanding of the project? Does the proposal address all elements of the RFP? Does the proposal show an understanding of the project goals and desired outcomes? Are there any exceptions to the specifications, Scope of Work, or agreement? Does the proposal provide examples of innovative engagement and marketing techniques? Can the target start and completion dates be met?	**Firm Capability** Does the firm have the resources, capacity and support capabilities required to successfully complete the project on-time and in-budget? Has the firm successfully completed previous projects of this type and scope?	**Assigned Personnel** Do the persons who will be working on the project have the necessary skills and qualifications? Are sufficient people of the requisite skills and qualifications assigned to the project?	**Project Approach & Marketing Research** Does the project approach seem appropriate to reach the target audience? Is there an understanding of how the final campaign will it fit into the overall framework as laid out in Attachment A? Is the proposed market research appropriate?	**Cost and Work Hours** Does the proposal include detailed cost break- down for each cost element as applicable and are the line-item costs competitive? Are the work hours presented reasonable for the effort required by each project task or phase?			
Firm Name	**Reviewer**	**Score (1 - 5) 1 = Low; 5 = High**	**Score**	**Score**	**Score**	**Score**	**Total Score**	**Average Score**	**Total Cost**
Creative Arcade	Laura	3	4	4	2	1	14		43,000 - 46,000
Creative Arcade	Sue	1	1	1	0	0	3		43,000 - 46,000
Creative Arcade	Amy	2	2	3	1	1	9	8.67	43,000 - 46,000
DesignWrite	Laura	4	5	5	5	5	24		39,900
DesignWrite	Sue	5	1	4	5	4	19		39,900
DesignWrite	Diane	5	5	4	5	5	24		39,900
DesignWrite	Amy	4	2	4	2	4	16	20.75	39,900
MG + G Marketing Solutions	Laura	5	5	4	5	4	23		48,000
MG + G Marketing Solutions	Sue	3.5	3.5	4	3.5	5	19.5		48,000
MG + G Marketing Solutions	Amy	4	5	5	4	4	22		48,000
MG + G Marketing Solutions	Diane	5	4	5	4	4	22	21.63	48,000
Riffland	Laura	4	4	3	3	4	18		23,250
Riffland	Sue	2	1	1	0	4	8		23,250
Riffland	Amy	1	3	3	1	2	10	12.0	23,250
Woychick	Laura	4	5	5	5	4	23		39,000 - 50,000
Woychick	Sue	5	5	4	5	4	23		39,000 - 50,000
Woychick	Diane	3	4	4	3	4	18		39,000 - 50,000
Woychick	Amy	4	4	4	5	2	19	20.75	39,000 - 50,000

TASK ORDER No. 37
Sediment Analysis for Lake Riley, Rice Marsh Lake, Lake Susan, and Lake Susan Preserve Wetland
Pursuant to Agreement for Engineering Services
Riley Purgatory Bluff Creek Watershed District and Barr Engineering Company.
December 1, 2021

This Task Order is issued pursuant to Section 1 of the above-cited engineering services agreement between the Riley Purgatory Bluff Creek Watershed District (District) and Barr Engineering Company (Engineer) and incorporated as a part thereof.

1. **Background:** The RPBCWD actively manages lakes in the District including sediment analysis for internal phosphorus (P) loading in lakes. These studies aim to verify sediment P release (internal loading), diagnose the cause of internal loading, and design sediment P inactivation projects such as alum where appropriate. The District uses an adaptive management approach for alum treatments that include sediment monitoring following the first half-dose of alum and following the final dose to verify that treatment goals are met and make adjustments where necessary to ensure the effectiveness of the project.
    - Lake Riley was treated with alum in 2016 and in 2020 resulting in significant water quality improvements in the lake. Final sediment analysis is needed to ensure project goals were met and verify long term control of sediment P release.
    - The first half-dose of alum in Rice Marsh Lake was applied in 2018 and water quality has improved. Follow up coring is needed to measure progress toward the sediment goal and determine the next step in the adaptive management approach.
    - Lake Susan received an alum application many years ago and was cored in 2016 to estimate the cost of an alum treatment since the previous application was significantly underdosed.
    - RPBCWD monitoring of data indicates phosphorus concentration loading to the spent lime system that are 2-3 times greater than is typical for stormwater runoff. To help protect the performance longevity of the filter media in the system from the excess phosphorus concentrations, the sediment in the Lake Susan Preserve wetland, located just upstream of the spent lime unit, will be sampled by District staff and included in this analysis.

   Because five years have passed since previous coring, new cores will be collected by District staff to assess sediment chemistry. The 2022 budget approved by RPBCWD's Board of Managers in September 2021 allotted a combined $46,000 for the sediment analysis of Lake Riley and Rice Marsh Lake. District staff are in the process of collecting sediment cores from Lake Riley (collected October 2021), Rice Marsh Lake (winter 2021), and Lake Susan (winter 2021), thus saving the District significant expenditures while also allowing analysis of additional resources. Barr staff worked with District staff to identify the collection needs, coordinate with the University of Wisconsin-Stout laboratory, and coordinate with Pace analytical to ensure quality analytical results. Once the data are available for each of these lakes and the Lake Susan Preserve Wetland, data analysis and interpretation are needed to evaluate progress toward eliminating sediment P release, determine future alum doses and design, and to support the District's management of the lakes.

2. **Description of Services:** District staff are actively collecting sediment cores from the three lakes for analysis. Barr staff will provide analysis of the data including:
    - Determination of sediment chemistry and mobile phosphorus fraction driving internal P release

- Determination of sediment P release and internal load
- Provide an alum dose, cost estimate and application strategy if needed
- Assess progress toward sediment P inactivation goals
- Provide recommendations for continued adaptive management
- Support experimental design and implementation of sediment coring for the Lake Susan Preserve wetland
- Analyze the Lake Susan sediment data

3. **Scope of Services:** Barr will provide the following scope of services to evaluate sediment chemistry in Lake Riley, Rice Marsh Lake, Lake Susan, and Lake Susan Preserve wetland.

Task 1. Compile and analyze data.

Barr will compile and summarize the data provided by UW-Stout and Pace analytical to evaluate current internal phosphorus loading and sediment chemistry. We will also summarize the current water quality in the lake, compare current internal loading to past models and measurements, and determine progress toward inactivating sediment phosphorus. Data analysis will be developed to support the District's goals to minimize internal P loading in the lakes and bring the lakes into compliance with State water quality standards.

Because analyzing wetland sediments is a newer/emerging science Barr staff will also work with District staff to develop an experimental design for sampling sediments in the Lake Susan Preserve wetland. Support will include sediment sampling locations, lab analyses to perform, help District staff coordinate with UW-Stout and Pace analytical, data analysis, and recommendations for wetland sediment remediation.

Task 2. Reporting.

Barr envisions developing four separate technical memorandums, one for each lake or wetland, to summarize the sediment results, make recommendations for further management, and provide cost estimates and alum doses if necessary. The technical memorandums will only be provided in PDF format.

Task 3. Meetings

Barr staff will prepare a presentation and present the results of the data analysis at one Board meeting.

Task 4 Project management.

Project Management will be required in all phases to ensure the work meets the expectations of District staff and other stakeholders, and that the work is completed in a satisfactory manner, within the project timeline and within the agreed-upon budget.

Assumptions

Several assumptions were made in preparing the scope of work for this agreement. Assumptions are as follows:

- District staff will be responsible for all field data collection, coordination with Pace and UW-Stout data, all contracting and costs associated with lab work. The budget allots 4 hours of time to provide office assistance to RPBCWD on data collection and lab coordination.
- District will be responsible for providing analytical data in a digital format (Pace and UW-Stout data)
- The District will provide all available and applicable GIS and CAD files to Barr in electronic format.

4. Budget:

Barr's services will be compensated for in accordance with the engineering services agreement and will not exceed $24,800, without written authorization by the Administrator. The following table provides a breakdown of the anticipated cost for major tasks associated with scope of services describe above. All data analysis and memos will be completed as data become available. For example, Lake Riley sediment samples are already collected and at the laboratory for analysis. This memo will be completed within 4 weeks of receiving the data. Sediment cores will be collected sometime this winter by District staff for Rice Marsh Lake and Lake Susan. Cores will likely be collected in Spring of 2022 for the Lake Susan Preserve wetland.

Task	Task Description	Anticipated Budget	Anticipated Completion Date
1	Compile and analyze data	$12,500	February 2022 (Lakes) June 2022 (Wetland)
2	Reporting (1 memo per lake/wetland)	$10,000	February 2022 (Lakes) June 2022 (Wetland)
3	Meetings	$1,400	June 2022
4	Project management	$900	June 2022
Task Order 37; Sediment Analysis Services Total		**$24,800**	

5. Schedule and Assumptions Upon Which Schedule is Based

The schedule outlined above assumes project initiation will occur in December 2021. The schedule may be modified depending on actual initiation of project work, weather impacts on field work, when data are received from RPBCWD, and other unforeseen conditions.

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

CONSULTANT

By_____

Its__Vice President_____

Date:

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

By_____

Its_____

Date:

APPROVED AS TO FORM & EXECUTION

_____

resourceful. naturally.
engineering and environmental consultants

BARR

Technical Memorandum

To: RPBCWD Board of Managers
From: Brandon Barnes, Joe Bischoff & Scott Sobiech
Subject: Duck Lake Outlet Environmental Impact Review
Date: December 3, 2021
c: Interim Administrator Jeffery

At the November 3, 2021 board meeting the Riley Purgatory Black Creek Watershed District (RPBCWD) managers heard comments from several residents about the control elevation of Duck Lake and its potential impact on the ecology of the lake. The managers expressed the need for additional science-based information to inform the discussion and any decision related to the Duck Lake outlet. The purpose of this memorandum is to provide the managers additional information about the history of the lake outlet, the lake's water surface level, water quality, vegetation, and fisheries. In addition, this memorandum provides a comparison of several outlet configurations and hypotheses their potential impact on the lake system.

Background

Duck Lake lies entirely within the boundaries of the City of Eden Prairie. The watershed area contributing to Duck Lake is 233 acres including the lake surface area of 41 acres. Duck Lake does not have any upstream lakes contributing flow. The flow from Duck Lake exits through a control structure into a storm sewer pipe that drains into Purgatory Creek.

Most of the watershed underwent development from agricultural use to residential land use between the early-1960's and late-1980's. Based on information from the Metropolitan Council, most of the Duck Lake watershed is covered by single family residential land use (80%). According to the Natural Resource Conservation Service's (NRCS) Soil Survey Geographic (SSURGO) database map for Hennepin County, the underlying soils in the Duck Lake watershed are predominantly classified as hydrologic soil group (HSG) A with high infiltration rates and B with moderate infiltration rates. The entire southwest corner of the watershed has A soils with B soils being the predominant soil type in the rest of the watershed.

General Lake Characteristics

Table1 provides a summary of the physical characteristics for Duck Lake. Duck Lake has an open-water surface area of approximately 41 acres. The lake is shallow, with a maximum depth of approximately 8 feet and mean depth of approximately 3.4 feet. The lake area, depth, and volume depend on the water level of the lake, which has been observed to vary between a high measurement of 916.12 (2014) feet MSL to a low measurement of 911.26 feet MSL (1988).

Table1 Duck Lake Physical Characteristics

Lake Characteristic	Duck Lake
Lake MDNR ID	27-0069-00
MPCA Lake Classification	Shallow
Ordinary High-Water Elevation (feet MSL)	915.3
2014 Water Level Control Elevation (feet MSL)	913.45
Pre-2014 Average Water Elevation (feet MSL)	914.1[1]
Post-2014 Average Water Elevation (feet MSL)	913.6[2]
Surface Area (acres)	41
Mean Depth (feet)	3.4
Maximum Depth (feet)	8
Littoral Area (acres)	41
Volume (at normal water elevation) (acre-feet)	131
Thermal Stratification Pattern	Polymictic
Estimated Residence Time (years) – 2014-2015 climatic conditions	1.0
Watershed Area Tributary to Upstream Lake	0
Total Watershed Area	233[3]
Subwatershed Area (acres)	233[3]

[1] Average water elevation 1970-2006.
[2] Average water elevation 2015-2021.
[3] Watershed area includes surface area of lakes

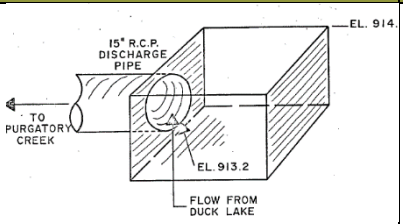
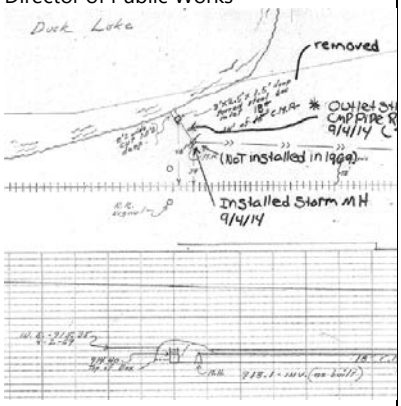
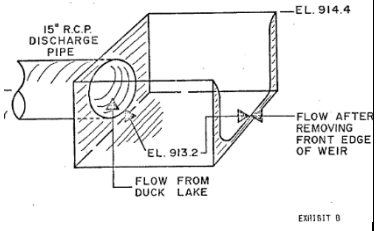
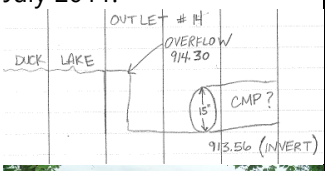
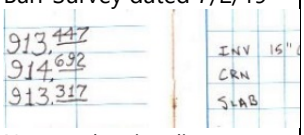
Given the depth of Duck Lake and the review of temperature and dissolved oxygen profiles suggest that Duck Lake is a polymictic lake. This means that the lake mixes multiple times throughout the year from wind mixing events. Temperature stratification does form resulting in anoxic conditions near the lake sediments; however, wind mixing events during the summer can be strong enough to completely mix the lake water column providing oxygen to the sediments and mixing phosphorus throughout the water column.

Lake Outlet Configurations

The three primary outflows from the lake are through a constructed outlet, evaporation, and net groundwater outflow (i.e., seepage). Table 2 provides a summary of the constructed outlet configuration

since the original outlet (1969 As-built) was constructed in 1969 and consisted of a square box structure with 15-inch outlet pipe.

Table 2. Duck Lake Outlet information

1969 As-built Outlet	DNR Denied 1979 Outlet Modification Request	Modified	2014 Existing Outlet
 Source: Exhibit B in Duck Lake Outlet Control Level memo dated 2/12/79 from Carl Jullie, City of Eden Prairie Director of Public Works  Source: Marked up 1969 As built 2355 provided by Eden Prairie 9/28/18 Note: The outlet pipe diameter is 15 inches based on dimensions from the original 1969 as-built, the 2/12/79 Duck Lake Outlet Control Level memo	 Source: Exhibit B in Duck Lake Outlet Control Level memo dated 2/12/79 from Carl Jullie, City of Eden Prairie Director of Public Works	CH2MHill survey field notes and photo from July 2011.   Note: There appears to be ripples in the water on both sides of the grates suggesting flowing water. 2014 Photos provide by City of Eden Prairie  	2014 Photos provide by City of Eden Prairie   Barr Survey dated 7/2/19  Note: outlet pipe diameter and control elevation based on 7/2/19 Barr Survey.
Control Feature: Box Weir Structure with 15-inch CMP **Control Elevation:** 914.4 M.S.L. (Top of Box Weir Structure)	**Control Feature:** 15-inch CMP **Control Elevation:** 913.2 M.S.L. (Invert of 15-inch CMP)	**Control Feature:** 15-inch CMP **Control Elevation:** 913.45 M.S.L. (Invert of 15-inch CMP)	**Control Feature:** 15-inch CMP **Control Elevation:** 913.45 M.S.L. (Invert of 15-inch CMP)

Despite the Department of Natural Resources (DNRs) 1979 denial to modify the outlet, the structure was modified sometime between 1979 and 2011 (Modified). The photos in the third column of Table 2 illustrate that the steel box structure was modified by removing one of the box sides (consistent with the City's 1979 request) and installing catch basin grates, thus changing the control elevation of the lake. This unpermitted structure was replaced by the city in 2014 (2014 Existing) with a simple culvert and trash rack.

In 2014 the city of Eden Prairie undertook the outlet replacement by surveying the elevation of the discharge pipe at the outlet and replacing it with a new discharge pipe at the same elevation. DNR staff indicated to RPBCWD that no DNR permit was applied for or issued to modify the Duck Lake outlet in 2014. DNR provided RPBCWD with its 1979 project file for a city request to modify the outlet. According to the file, the 1979 outlet modification request, which proposed lowering the outlet, was denied by the DNR. (The request, DNR denial, and an associated RPBCWD letter are attached for reference.) The DNR file for this matter clearly shows the control elevation for Duck Lake was established in 1969 by a steel box structure at elevation 914.4 M.S.L. (about 1 foot higher than the current condition).

RPBCWD Permitting for Duck Lake Road Reconstruction

The RPBCWD considered the City of Eden Prairie's original permit application (2019-004), including several variance requests, to reconstructed Duck Lake Road at the April 3, 2019 Board of Managers meeting. The 2019-004 application excluded any modification to the outlet from the lake. The Board had a lengthy discussion about the permit and the meeting minutes indicate that Manager Koch moved to lay this agenda item and the next agenda item over until the Board's next monthly meeting in order for staff to gather more information on pollution and water quality and wetland impacts with Manager Ziegler seconding the motion. The motion was approved 5-0. The City of Eden Prairie formally withdrew the application on May 1, 2019 via an email from the City of Eden Prairie's Sr. Project Engineer, Mary Krause.

After close coordination and in partnership with RPBCWD, the City submitted a new permit application (2021-016) which revised the roadway design to incorporate a 235-foot bridge to help restore a portion of the lakebed previously impacted by the roadway. Between the 2019 and 2021 application the City worked with the DNR Area hydrologist to incorporate a restored lake outlet into the design.

While the restored lake outlet was specifically excluded from RPBCWD permit consideration of permit 2021-016, the analysis of the permit was predicated on the lake having a control elevation set consistent with what the DNR permitted in 1969 rather than the modified outlet installed by the City in 2014, especially Rule B Floodplain Management.

Permit 2021-016 was conditionally approved by the RPBCWD Board of managers at their May 5, 2021 regular meeting. Because RPBCWD's conditional approval of 2021-016 was predicated on the lake control elevation being set at 914.4 and the MNDNR's shift in their recommended control elevation to remain at the City's 2014 improvements (i.e., at elevation 913.45, no changes to the lake outlet), the city's consultant submitted information demonstrating the project will provide the required compensatory storage and maintain downstream discharge to Purgatory Creek similar to what was authorized under the approved

permit (see below Table 3 and Table 4). The permit analysis of the road reconstruction project relative to Rules C (erosion Prevention and Sediment Control), D (Wetland and Creek Buffers), and E (Dredging) and J (Stormwater Management) are mostly independent of the lake elevation and thus relatively unimpacted by the DNR's decision to allow the lake control elevation to remain at the 2014 outlet level.

Table 3. Compensatory Storage Comparison

Condition	Floodplain Fill (CY)	Compensatory Storage Provided (CY)	Existing 100-year Flood Elevation (M.S.L.)	Proposed 100-year Flood Elevation (M.S.L.)
5/5/2021 Approval (Restored Outlet 914.4)	481	497	916.15 (East) 916.53 (West)	916.15
2014 Outlet (DNR Directed Outlet at 913.45)	432	621	915.17 (East) 916.49 (West)	915.15

Table 4. Downstream Discharge Comparison

Modeled Discharge Location	2-Year Discharge (cfs)		10-Year Discharge (cfs)		100-Year Discharge (cfs)		10-Day Snowmelt (cfs)	
	Ex	Prop	Ex	Prop	Ex	Prop	Ex	Prop
5/5/2021 Approval (Restored Outlet 914.4)	2.7	2.8	3.4	3.7	4.2	4.2	4.1	3.9
2014 Outlet (DNR Directed Outlet at 913.45)	0.4	0.5	1.4	1.7	3.9	3.9	4.0	3.5

Lake Hydrology Analysis

Has indicated in Table1 the average lake levels observed in Duck Lake are different than the control elevation and lower than the Department of Natural Resources (DNR) published ordinary high-water level (OHWL). According to the DNR website "*The Ordinary High Water Level (OHWL) is a term that many lake, wetland, and river property owners hear, but it is often misunderstood.*" The DNR's 1993 Technical Paper 11 Guidelines for Ordinary High Water Level (OHWL) Determinations indicates "*The OHWL is the landward extent of DNR jurisdiction over anyone who works in the bed of public waters or public waters wetlands (collectively referred to as public waters). It is commonly used in public waters work permits and by local zoning authorities to determine lot size, structure setback, and drainfield location and elevation. It is NOT: a runout elevation; an average water level; an extreme high water level; nor an arbitrary elevation set by an individual, group or agency.*"

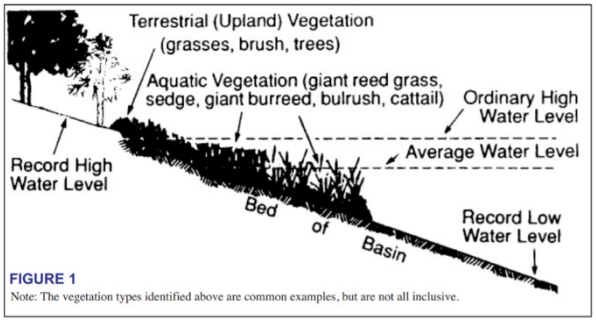


Illustration depicting the OWHL relative to change in vegetation from the DNR's 1993 Technical Paper 11 Guidelines For Ordinary High Water Level (OHWL)

According to Minnesota statute 103G.005, Subd. 14. the OHWL for a water basin (i.e., lake or wetland) *"is an elevation delineating the highest water level that has been maintained for a sufficient period of time to*

leave evidence upon the landscape, commonly the point where the natural vegetation changes from predominantly aquatic to predominantly terrestrial;" Therefore, the OHWL can and frequently does differ from the average water level, control elevation of an outlet structure, the record high level and record low level. This is the case for Duck Lake where the OHWL is established at elevation 915.3 feet, post-2014 control elevation is 913.45 and the highest recorded lake level record was elevation 915.9 feet in October of 1993.

Observed and Modeled Lake Level Analysis

Observed Lake Levels

Figure 1 shows available Duck Lake water level measurements from the DNR's LakeFinder, Barr, and RPBCWD files from September 1970 through November 17, 2021. No measurements were recorded between 2007 and 2012. Measurements collected in 2013 are not shown because the benchmark elevation used in 2013 when installing the lake level sensor was not provided to the District by CH2MHill (former engineer 2007 to mid-2013). RPBCWD data are shown in the Figure 1 starting in 2014 rather than using the DNR's LakeFinder information because RPBCWD data reflect a needed adjustment due to a benchmark elevation correction.

As previously described and shown in Figure 1, the lake outlet control elevation has varied over time. While it is unknown when the original outlet was modified to include the catch basin grates, the modification was assumed to have occurred in 1979 as shown in Figure 1. However, the measured lake elevations between 1970 and 2007 indicate that water elevations in the lake generally increased during that period. In other words, the modified outlet appears to have functioned similar to the original outlet and had limited impact on water levels. One hypothesis is that the outlet was not actively maintained after it was modified, and vegetation or debris limited the discharge through the grate. After 2014, there is an observable decrease in the water surface elevation in the lake. Prior to 2007 the average measured water surface elevation was 914.1, whereas after 2014 the average water surface elevation is 913.6.

In general, water levels in the lake fluctuate based on climatic and groundwater conditions. High water surface elevations in the lake are typically a result of short rainfall events and do not have a strong correlation with annual precipitation depth. In other words, lake levels are not anticipated to be higher during wetter years but are anticipated to be high following intense rainfall events. This general trend is typical for small lakes that have an established outlet. Table 5 provides a summary of the average water surface elevation measurements and annual precipitation for years when lake level measurements were collected. Prior to 2014 there were 15 measurements that show the water level exceeding the OHWL and after the modification the lake has not reached to OHWL.

There were no measurements recorded when the water surface exceeded the elevation of the ground adjacent to the lowest structure west of Duck Lake Road. However, extended periods of highwater could

lead to an increase in the surficial groundwater level and potential impacts to low basement floors. It is important to note that surveyed low floor elevations were not available for this assessment.

Water levels in the lake frequently drop below the outlet elevation. This typically occurs during relatively long periods with little rainfall. However, after 2014 there was a shift in the lake water levels. Before 2007, 52% of the measurements were collected when the water level was below the 1969 outlet elevation of 914.4, but all of measurements collected after 2014 were lower than the 1969 outlet elevation.

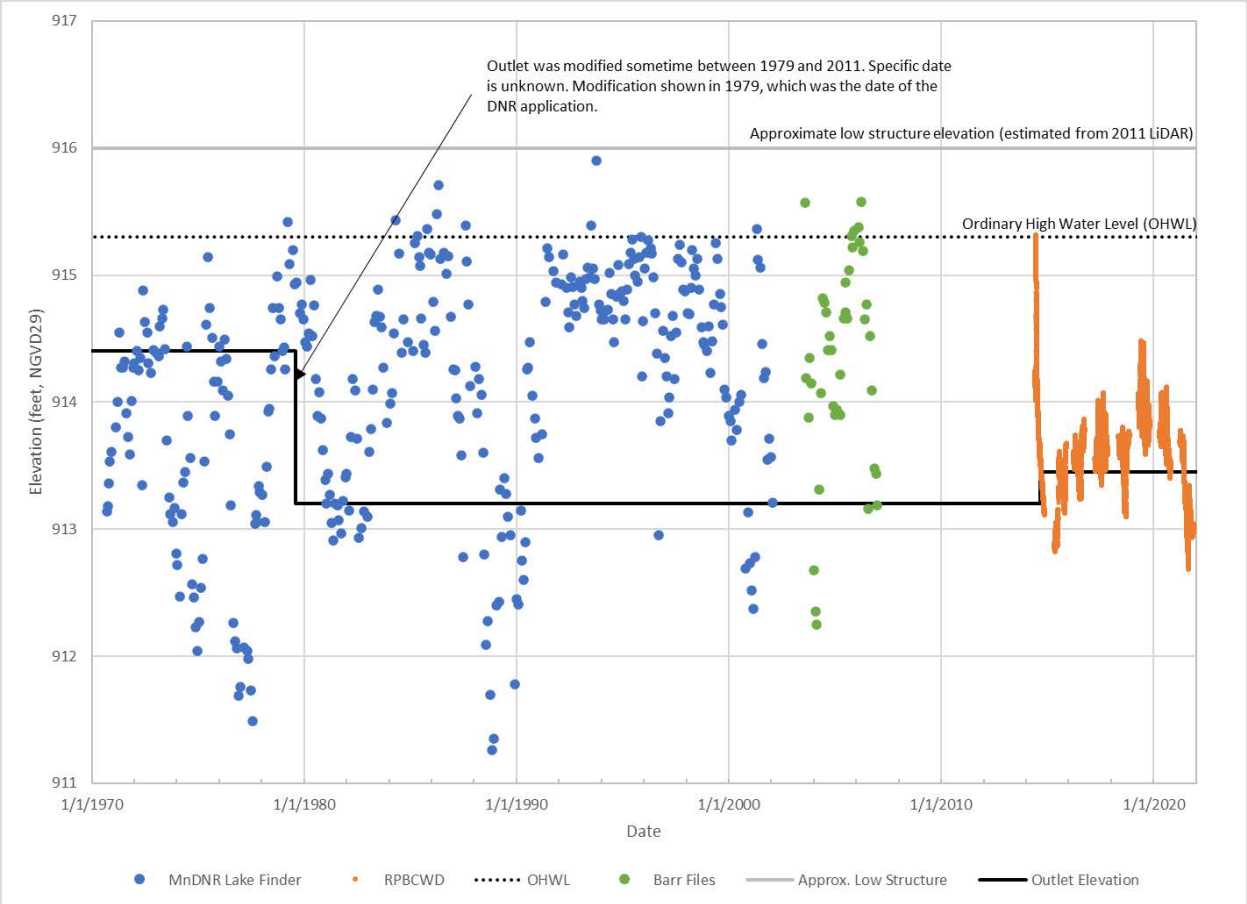


Figure 1 Measured Water Surface Elevations

Table 5. Duck Lake Average Measured Lake Level and Annual Precipitation

Year	Average Measured Lake Level *(feet, NGVD29)*	Annual Precipitation *(inches)*
1970	913.4	30.5
1971	914.1	29.4
1972	914.3	23.8
1973	913.9	21.1
1974	913.0	19.1
1975	913.9	35.2
1976	913.2	16.5
1977	912.5	34.9
1978	914.2	30.3
1979	914.8	31.1
1980	914.2	21.8
1981	913.2	28.0
1982	913.4	30.2
1983	914.3	39.1
1984	914.6	37.0
1985	914.9	31.7
1986	915.1	36.6
1987	914.2	32.2
1988	912.9	19.1
1989	912.8	23.3
1990	913.4	33.1
1991	914.6	36.7
1992	914.9	29.7
1993	915.0	32.2
1994	914.8	29.7
1995	914.9	25.7
1996	914.6	21.1
1997	914.6	30.0
1998	914.8	29.4
1999	914.6	25.6
2000	913.5	27.2
2001	913.9	31.6
2002	913.2	36.1
2003	914.1	21.7
2004	914.0	26.3
2005	914.7	30.6
2006	914.4	26.7
2007	No Measurements	32.4
2008	No Measurements	17.4
2009	No Measurements	20.0
2010	No Measurements	25.3
2011	No Measurements	21.1
2012	No Measurements	24.7
2013	Measurements not used[1]	32.6
2014	913.7	35.3
2015	913.2	36.0
2016	913.6	40.4
2017	913.6	32.4
2018	913.5	33.5
2019	913.9	43.4
2020	913.7	29.6
2021	913.3	23.8 (through Oct. 31st)

[1] Measurements collected in 2013 are not shown because the benchmark elevation used in 2013 when installing the lake level sensor was not provided to the District by the former engineer (CH2MHill), thus there is uncertainty in the data.

The measured water levels in Duck Lake were used to develop an elevation-duration curve for each of the outlet configurations (i.e., one curve with measurements before 2014, and one curve with measurements after 2014). Figure 2 shows the percentage of time that the water level exceeds a given elevation based on the two curves. The elevation duration curves show that water levels in Duck Lake have been lower following the outlet modification in 2014. In reviewing the information between 1970-2006, the lake level was above elevation 914.4 (the 1969 control level) for 47% of the measurements and above elevation 913.45 for 76% of the measurement. Following the outlet replacement in September of 2014, the lake level was above elevation 914.4 for less than 1% of the measurements and above elevation 913.45 for 71% of the measurements. Because the amount of measurements that exceed 914.4 are significantly lower after the 2014 outlet was installed, the lake outlet is functioning different post-2014. Table 6 summarizes the percentage of measurements at or above the listed elevation based on measurements collected before the outlet was modified in 2014 and measurements after the outlet was modified in 2014. The data show that 50% of the measurement reached elevation 914.3 between 1970-2006 while after the 2014 modification 50% of the measurements only reached elevation 913.6, thus suggesting the modified outlet has resulted in a lower average lake level of roughly 0.7 feet.

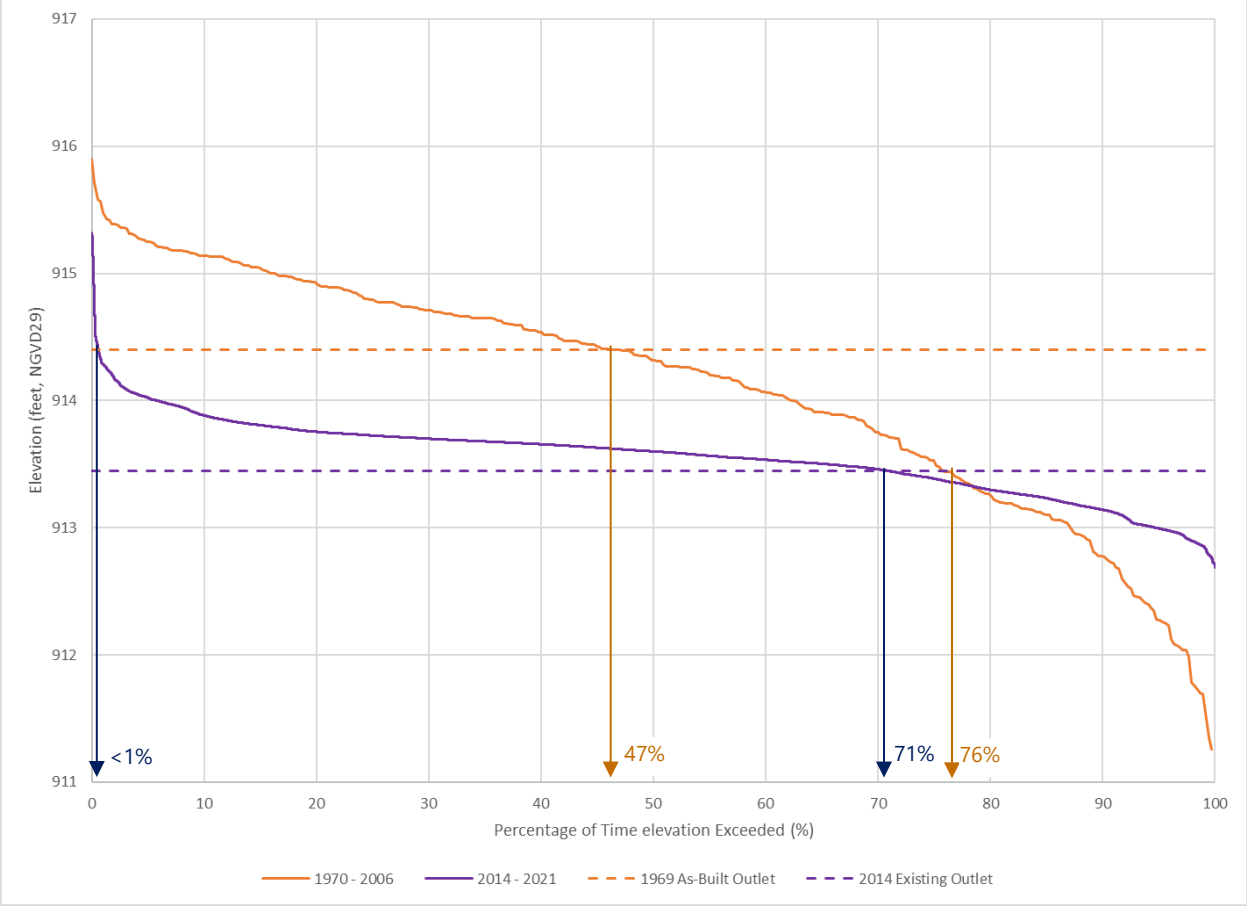


Figure 2 Stage Duration Curve Based on Measured Lake Levels

Table 6. Elevation Corresponding to Percentage of Time Elevation Exceeded in Duck Lake

Percentage of Time Elevation Exceeded	Duck Lake Elevation	
	1970-2006	2014-2021
90%	912.8	913.1
50%	914.3	913.6
10%	915.1	913.8
5%	915.3	914.0
1%	915.5	914.3

In addition, RPBCWD's 2017 Regional Groundwater/Surface Water Interaction Study suggests Duck Lake losses water to the water table. Because less water is retained in the lake with the lower outlet elevation, the amount of groundwater recharge with the control elevation is likely reduced.

Simulated Lake Levels

Water levels in the lake fluctuate as shown in Figure 1. Due to variability in the water surface elevations, it is difficult to determine the impact of the outlet configuration on the water levels in the lake by modeling a single design rainfall event. Therefore, a continuous simulation of 73 years of observed rainfall was completed to generate a times series of water levels for the 1969 outlet configuration and the current outlet. A simulation was not conducted for the outlet modification that occurred between 1979 and 2011 because the observed data suggests that the modified outlet performed similar to the 1969 outlet configuration. The simulation results were then used to develop an elevation-duration curve for each of the outlet configurations. While this methodology accounts for how the lake responded to past patterns of recorded rainfall that occurred over a wide range of climatic conditions and allows the duration curves to be based on consistent time step interval, it does not account for land-use changes over the simulation period. Much of the continuous simulation effort was completed in 2019. The draft modeling results from the continuous simulation were discussed with the prior DNR Area Hydrologist and City of Eden Prairie in 2019 following the City's withdrawal of permit application 2019-004. The information is included here for manager consideration as well.

The Duck Lake modeled and observed water surface comparisons are shown in Figure 3. Some of the differences in the Duck Lake observed and modeled water surface elevations are likely due to the assumption that the outlet does not plug during the simulation, and differences between the simulation and measured water levels may also be due to partial plugging of the lake outlet due to ice or debris. Overall, the model closely simulates the measured water levels during the calibration period and can be used to evaluate water levels during longer continuous simulations. The Duck Lake continuous modeling results for the two outlet configurations are shown in Figure 4.

The modeled water levels in the east and west basins of Duck Lake were used to develop an elevation-duration curve for each of the outlet configurations, similar to the curves developed based on measured information. A duration curve plots the percentage of time that the water level exceeds a given elevation. The two elevation-duration curves for the east and west basins of Duck Lake are shown in Figure 5 and Figure 6 respectively.

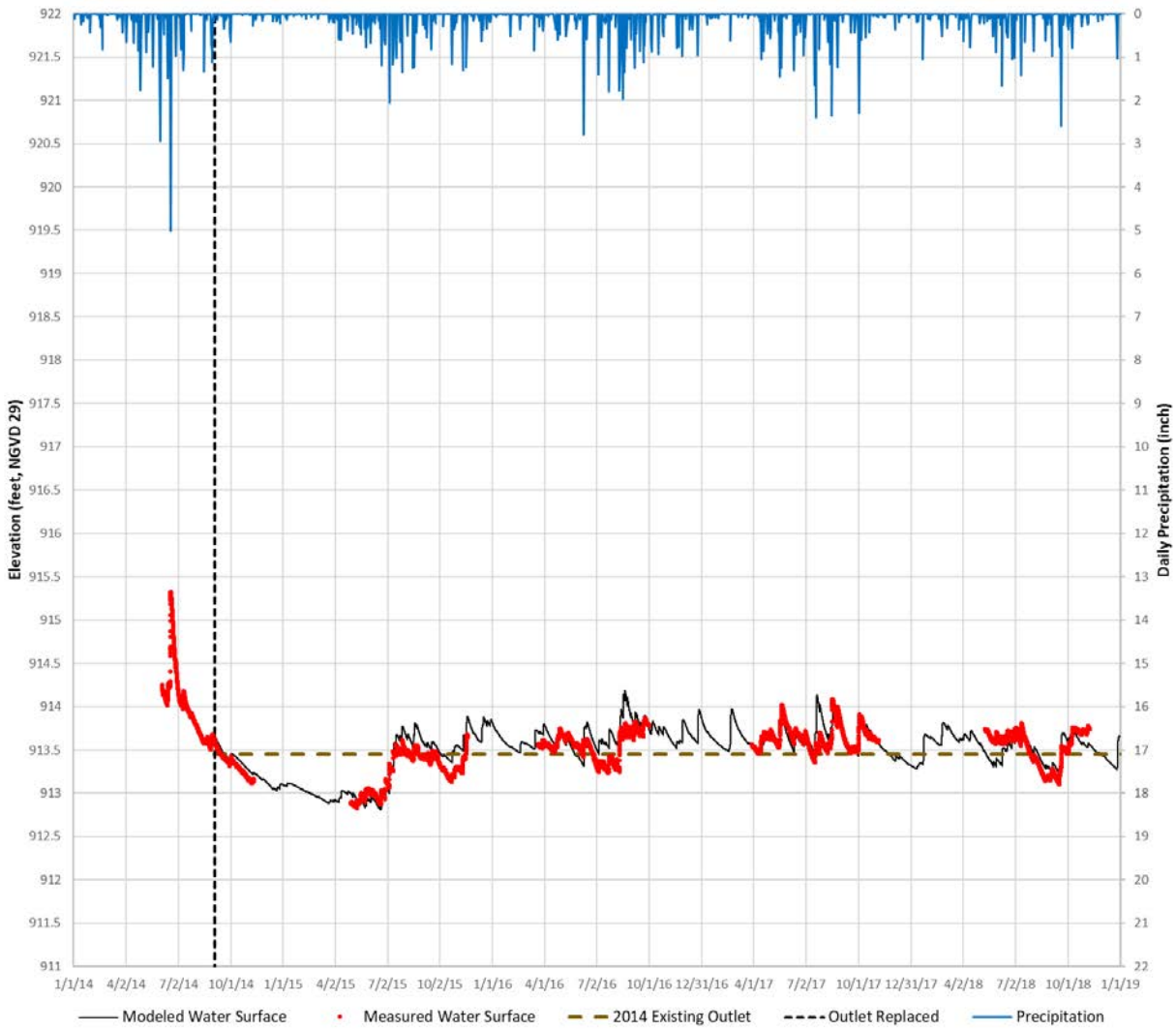


Figure 3 Duck Lake Model Calibration (October 2014 – December 2018)

Figure 4 Duck Lake 1949 – 2021 Predicted Lake Levels based on Model Simulation Results

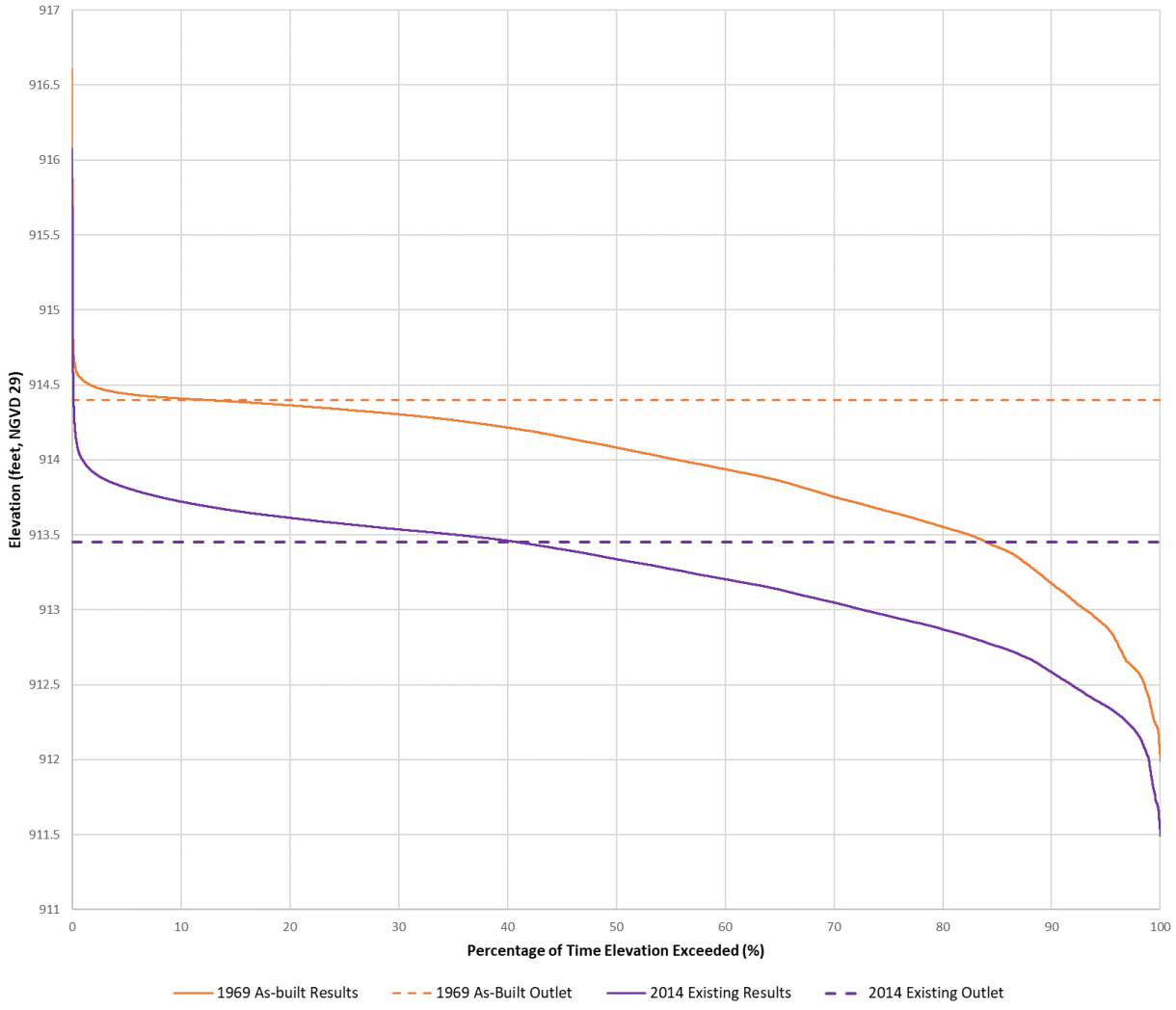


Figure 5 Duck Lake East Basin: Elevation-Duration Curves

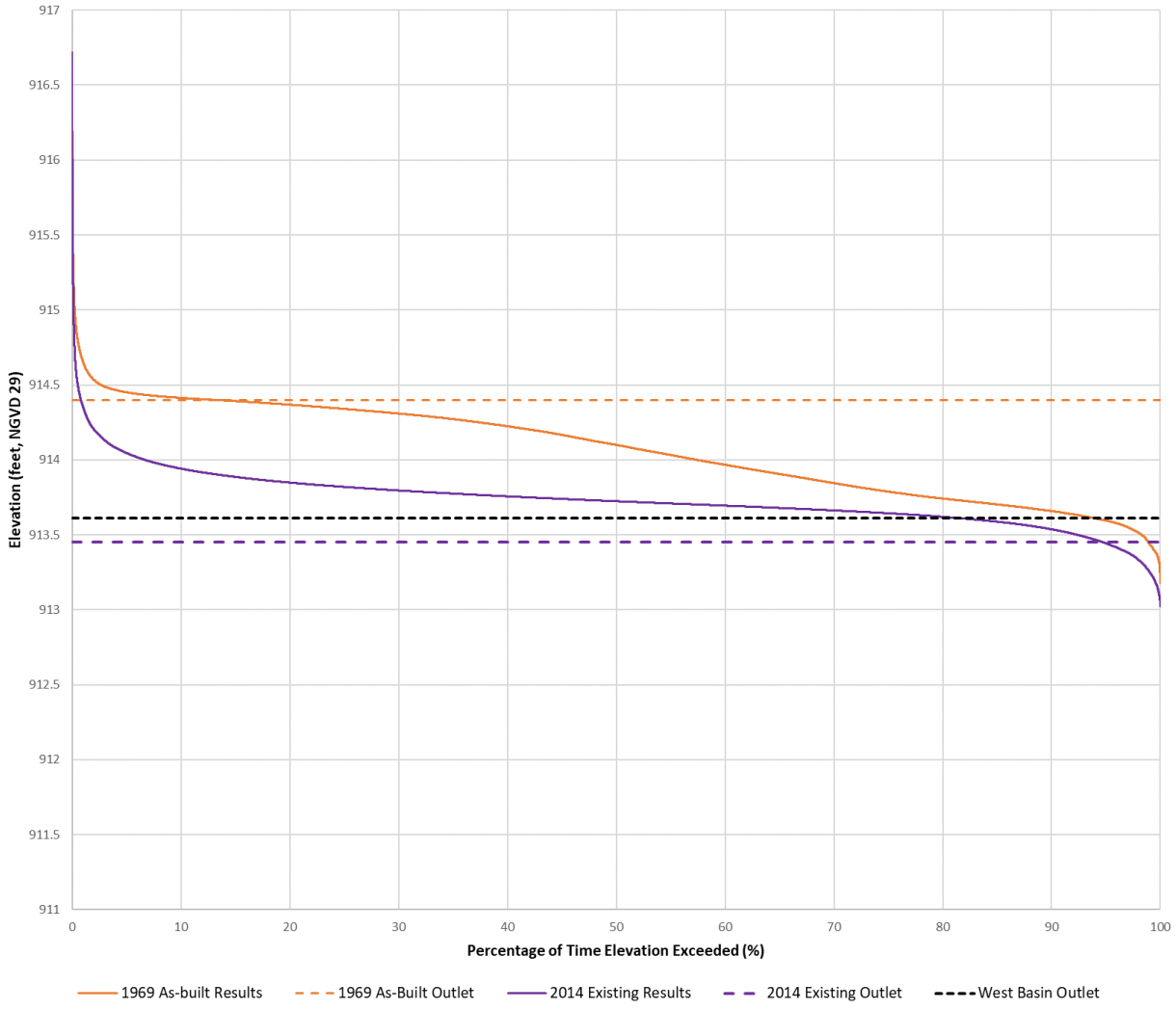


Figure 6 Duck Lake West Basin: Elevation-Duration Curves

Table 7 summarizes the percentage of time water levels in the Duck Lake East Basin is estimated to exceed the two outlet elevations under the two outlet conditions based on the simulated 73-year rainfall record. For example, the 1969 as-built outlet condition resulted in lake levels exceeding the 2014 control elevation (913.45) 84% of the time. Table 7 also shows the relative impact of the two outlet conditions. For example, changing the outlet from the 1969 as-built condition to the 2014 control elevation resulted in a 43% reduction (84% - 41%) in the percentage of time the lake level exceeded the 2014 outlet elevation (913.45). Table 8 summarizes the elevation corresponding to locations of the stage duration curve for each outlet for the Duck Lake East and West basins.

Table 7. Percentage of Time Water Level in Duck Lake (East Basin) Exceeds Outlet Elevation

Elevation Exceeded	Outlet Condition	
	1969 As-built	2014 Modified
914.4 (1969 Control Elevation)	12%	<1%
913.45 (2014 Control Elevation)	84%	41%

Example of how to interpret the results: The 2014 Existing outlet condition resulted in lake levels that exceed the elevation of the 1969 control outlet (914.4) less than 1% of the time.

Table 8. Elevation Corresponding to Percentage of Time Elevation Exceeded in Duck Lake East and West Basin

Percentage of Time Elevation Exceeded	Duck Lake East Basin		Duck Lake West Basin	
	1969 As-built	2014 Modified	1969 As-built	2014 Modified
90%	913.2	912.6	913.7	913.5
50%	914.1	913.3	914.1	913.7
10%	914.4	913.7	914.4	913.9
5%	914.4	913.8	914.5	914.0
1%	914.5	914.0	914.7	914.3

Simulated Lake Levels with Duck Lake Road Bridge

The PCSWMM model was updated to include the Duck Lake Road bridge proposed by the City of Eden Prairie. The continuous simulation of 73 years of observed rainfall was completed to evaluate the impact a bridge has on water surface elevations in the East and West basin of Duck Lake. Figure 7 and Figure 8 show the water surface elevation duration curves for the East and West basins of Duck Lake with and without the bridge.

As shown in Figure 7, there is very little change in the elevation duration curves for the East Basin for both outlet conditions, whereas, Figure 8 shows an observable decrease in the water surface elevation. With either the 1969 outlet or the 2014 outlet, the average change in water surface elevation in the East Basin is less than 0.1-feet. This indicates that the outlet from the East Basin has a larger impact on Duck Lake water levels than whether or not Duck Lake Road reconstruction is a bridge or culvert. However, the proposed bridge results in an observable reduction in the water level in the West Basin. The average lake level is lowered by 0.1-feet. Whereas the maximum decrease in water level in the West Basin is 1.9-feet for the 1969 outlet and 2.2-feet for the 2014 outlet.

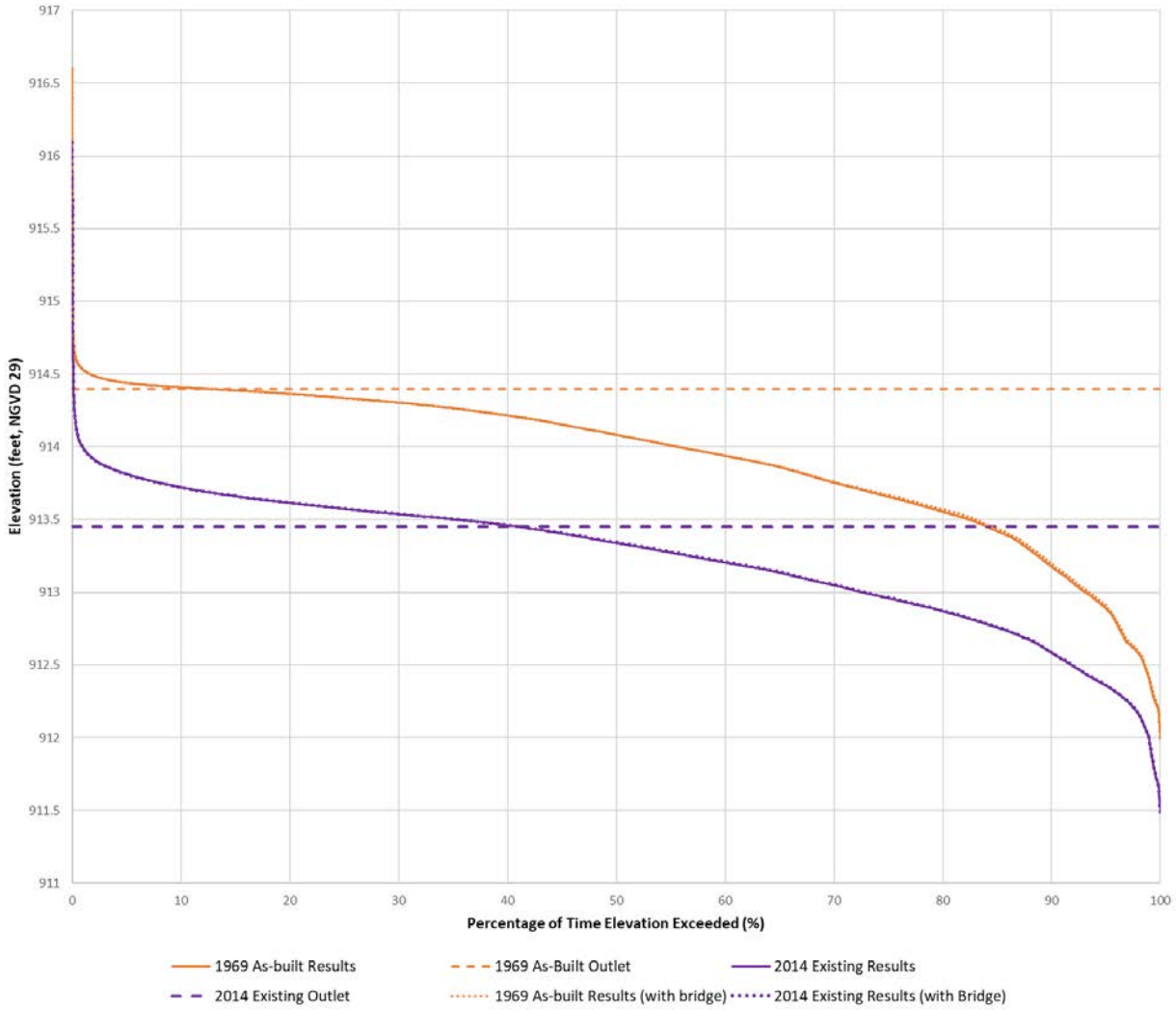


Figure 7 Duck Lake East Basin: Elevation-Duration Curves with Duck Lake Road Bridge

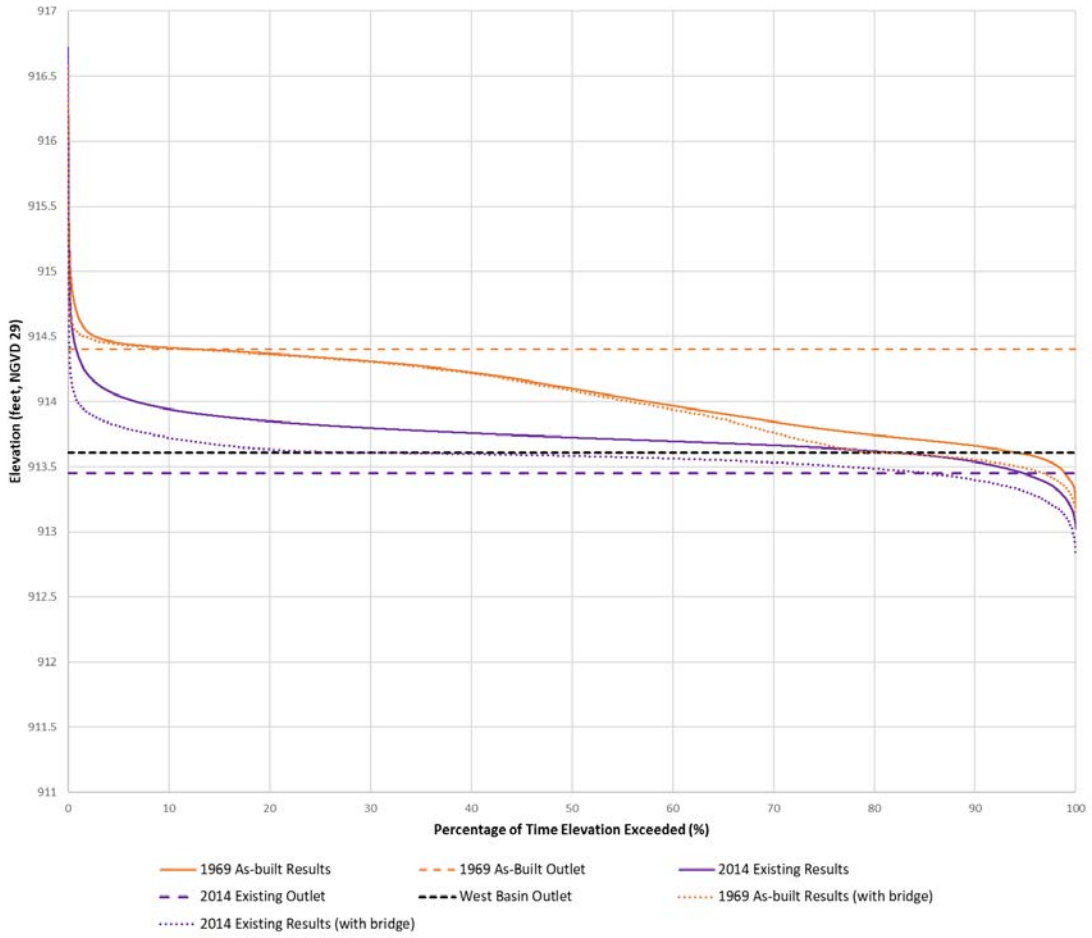


Figure 8 Duck Lake West Basin: Elevation-Duration Curves with Duck Lake Road Bridge

Lake Ecology Analysis

The lake ecological analysis was limited to the available data as discussed in the following section.

Water Quality Analysis

Water quality in Duck Lake is not likely to be sensitive to relatively small changes in water surface elevations or lake volume. Duck Lake has a small watershed (233 acres) and a low watershed to lake area ratio (6:1). Lakes with small water to lake area ratios tend to have long residence times making them less sensitive to changes to small changes in watershed area or lake volume that can affect residence time in the lake. Duck Lake an average residence time over 1 year making it insensitive to volume changes. If the changes were large enough to shift the residence time to less than 122 days (the average growing season), there may be potential impacts to how the lake responds to watershed and internal P loading. In general, Duck Lake water quality is unlikely to be affected by changes in the water surface elevations and associated volumes discussed in this memo. However, water quality was reviewed to determine if there is any indication that water quality has degraded in the lake especially as the water surface elevation appears to have changed after 2014.

Water quality in Duck Lake has consistently improved since 1970 with current total phosphorus (TP) and chlorophyll-a concentrations below the standard in most years since 2012 (Figure 9 and Figure 10). Water clarity demonstrates a similar patter with excellent water clarity over the past decade Figure 11). TP and chlorophyll-a concentrations as well as water clarity are relatively stable since 2014 when lake elevations appear to have changed and bounce was reduced. Overall, there is no indication that changes in water surface elevation are affecting water quality in Duck Lake. Further, water quality was excellent over the past decade suggesting that stable, good water quality can be maintained with the current hydrologic regime.

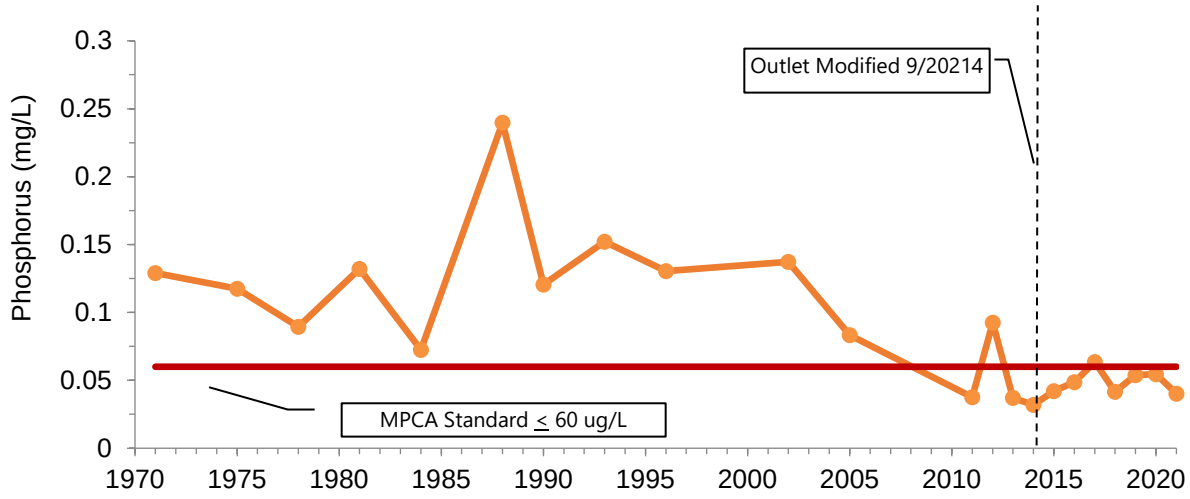


Figure 9 Summer average total phosphorus concentrations in Duck Lake.

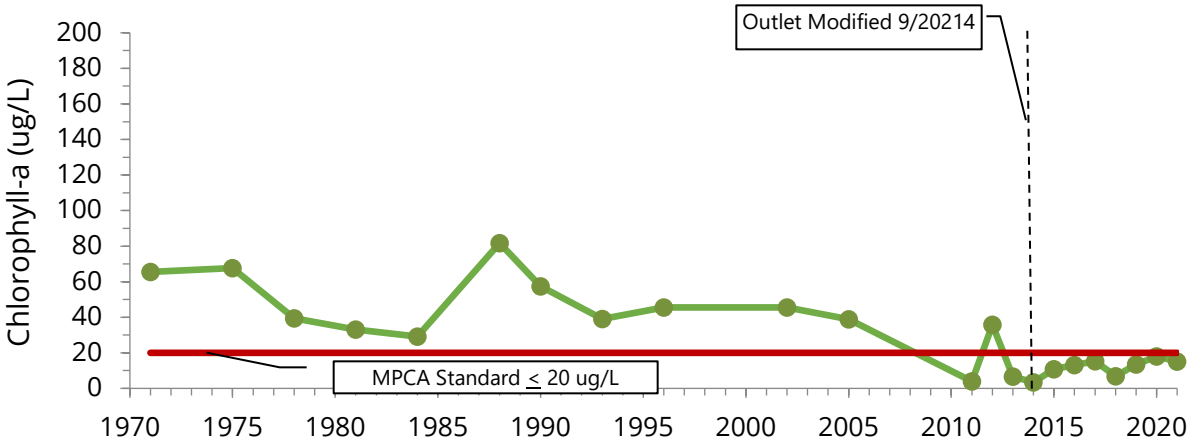


Figure 10. Summer average chlorophyll-a concentrations in Duck Lake.

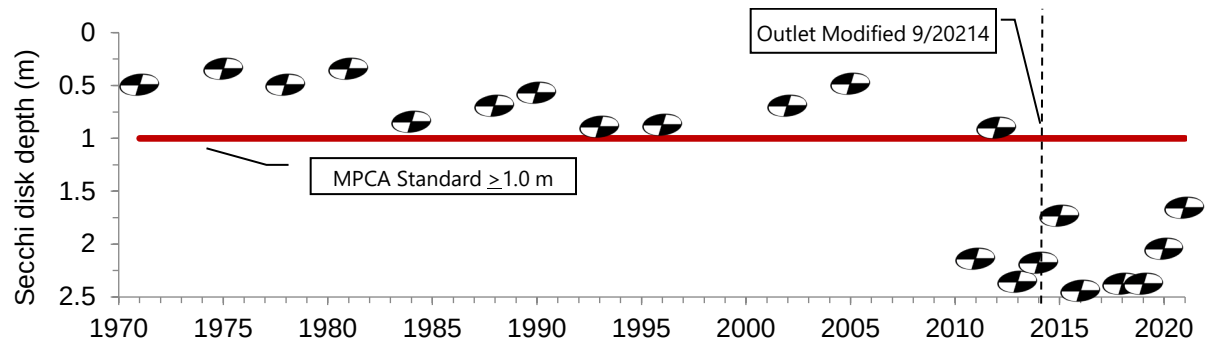


Figure 11. Summer average Secchi Depth in Duck Lake.

Fisheries Analysis

Changes in water elevation can affect fisheries in a lake system by changing or reducing habitat, reducing oxygenated water areas for fish habitat (mostly for deep lakes), or by increasing winterkill for hard winter freeze. Because Duck Lake is so shallow, it is unlikely to impact the extent of dissolve oxygen during open water month because the lake mixes frequently and the surface area to water volume is high, suggesting that diffusion of oxygen from the atmosphere will be high enough to maintain oxygenated conditions in the lake.

Limited fish data exist for Duck Lake with trap net and electrofishing surveys conducted in 2011 and 2012. Only three species were found with the trap nets including black crappie (188 fish), black bullhead (1 fish), and green sunfish (7 fish). Electrofishing surveys also captured bluegill and largemouth bass in low numbers. While no fish survey has been completed since the modification to the outlet structure, anecdotal information suggests a significant reduction in the fisheries in recent years with Duck Lake becoming infested with goldfish, which are closely related to common carp and can be destructive to aquatic plant communities. According to RPBCWD fisheries expert, Josh Maxwell, goldfish removals in spring-2021 combined a seine and backpack electrofishing. It was deemed ineffective even though couple hundred goldfish were removed.

Goldfish present in Duck Lake. Photo taken by RPBCWD

RPBCWD records indicate Duck Lake has a history of fish kills with winterkills occurring in 2010, 2011, 2012, 2018, 2019, and 2020. The fish kills between 2010-2012 occurred right before a shift in water quality (Figure 9 through Figure 11) and likely contributed to the shift to the clear lake state. Winter fish kills also occurred recently likely contributing to the stable water quality in the lake. Fish kills in shallow lakes can act as top-down control, an effect where fish that graze zooplankton are limited in numbers. This effect is typically a result of healthy top predator population, but the zooplankton grazer population can also be controlled by hard winter kills.

Because the dynamics of winter fish kills are highly complex and depend on numerous factors, including but not limited to ice thickness, vegetation decay, water volume, snow cover, etc., it is very difficult to definitively state the impact of a roughly 1-foot reduction in water level. There is no evidence that the current outlet elevation (913.45) is impacting winter fish kills by increasing the volume of ice in the lake in winter. Fish kills occurred under both lake surface elevation regimes. Further, it is likely that fish kills act as a top-down control in the lake, supporting a stable clear lake state. However, the reduction in the lake level would result in a lower oxygen reservoir in the remaining water.

Vegetation Analysis

Submerged Aquatic Vegetation

Vegetation surveys were periodically conducted on Duck Lake as far back as 1993. Early surveys were conducted using transects to generally characterize the vegetation community. In 2004, Blue Water Science began using a point intercept survey to facilitate better year over year comparisons of the vegetation community. Only one survey was conducted since the water surface elevation scheme appears to have changed (2020).

The Duck Lake aquatic vegetation community is dominated by Curly-leaf pondweed (CLP) in the early season followed by coontail late in the season following CLP senescence (Table 9). Three native pondweeds (stringy, flatstem and sago) occur in the lake but are found relatively infrequently (<10% frequency of occurrence). Vegetation typically covers the entire lake area, common for lakes with maximum depths less than 10 feet. In years with heavy CLP growth (2002 and 2005) some bottom areas of the lake were unvegetated, presumably due to CLP die off and slow native plant migration into these areas. Species composition in 2020 was similar to years prior to the control elevation change suggesting the change in elevation is not impacting the submerged vegetation. Eurasian watermilfoil was also recently identified in the lake in a few areas. The District is working to stave off infestation by hand pulling any Eurasian watermilfoil found during surveys.

Table 9 Submerged aquatic vegetation in Duck Lake. Data were collected by Blue Water Science on behalf of the City of Eden Prairie.

Observed Aquatic Plant	2-Sep-04 % Occurrence (32 stations)	17-Aug-09 % Occurrence (32 stations)	1-Aug-12 % Occurrence (66 stations)	28-Jul-20 % Occurrence (66 stations)
(*Lemna sp*)				
Coontail (*Ceratophyllum demersum*)	53	97	89	95
Chara (*Chara sp*)	--	3	--	9
Elodea (*Elodea canadensis*)	13	81	6	26
Water stargrass (*Heteranthera dubia*)	--	9	15	8
Naiads (*Najas flexilis*)	--	--	2	--
Water smartweed (*Polygonum sp*)	9	--	--	--
Curlyleaf pondweed (*Potamogeton crispus*)	28	--	5	2

Observed Aquatic Plant	2-Sep-04 % Occurrence (32 stations)	17-Aug-09 % Occurrence (32 stations)	1-Aug-12 % Occurrence (66 stations)	28-Jul-20 % Occurrence (66 stations)
Stringy pondweed (*P. sp*)	16	--	2	3
Flatstem pondweed (*P. zosteriformis*)	3	--	9	20
Sago pondweed (*Stuckenia pectinata*)	6	--	3	--
Aquatic Plant Coverage (acres)	40	40	37	42

Between 1993 and 2020, species richness was relatively stable ranging between 4 and 9 submerged species in the lake (Figure 12). Species richness in 2020 was average (7 species) for the period of record and did not suggest any impact from the change in the surface water elevation regime.

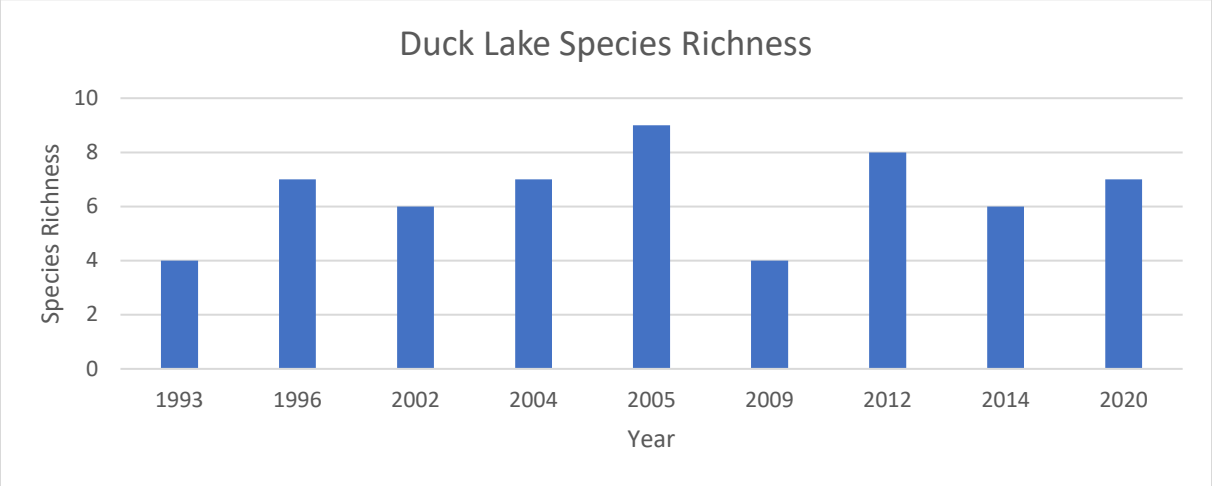


Figure 12 Species richness in Duck Lake.

Emergent Vegetation

Changes in water elevation have the greatest impacts on emergent vegetation which can be sensitive to changes in average water depth as well as bounce. Recent surveys did not include a review of emergent species which is often the case with point intercept surveys. Past transect surveys (1992 through 2005) identified four common emergent species including bulrush, cattails, blue flag iris and smartweed. All four of these species are relatively tolerant of changes on water elevation and significant bounce (Shaw and Schmidt 2003). Cattails can outcompete other natives in shallower waters forming dense monotypic stands that don't allow for other native species to expand.

Potential Impacts from Changes in Water Elevation

Changes in water elevations can change the character of the vegetation community. For example, making the lake shallower may result in the conversion of shallow water that is consistently inundated to seasonally inundated areas which can shift the plant community in those areas. These types of shifts are not necessarily bad for the ecosystem but may change the character from a lake (or deep-water wetland in many cases) to an emergent marsh.

To evaluate potential changes in the character of the aquatic vegetation community, a depth area curve was used to estimate changes in the depth contours of the lake. Detailed bathymetry is not available for Duck Lake however a rudimentary stage area curve was developed (Figure 13). This curve was used to determine changes in the lake characteristics with changes in the outlet elevation.

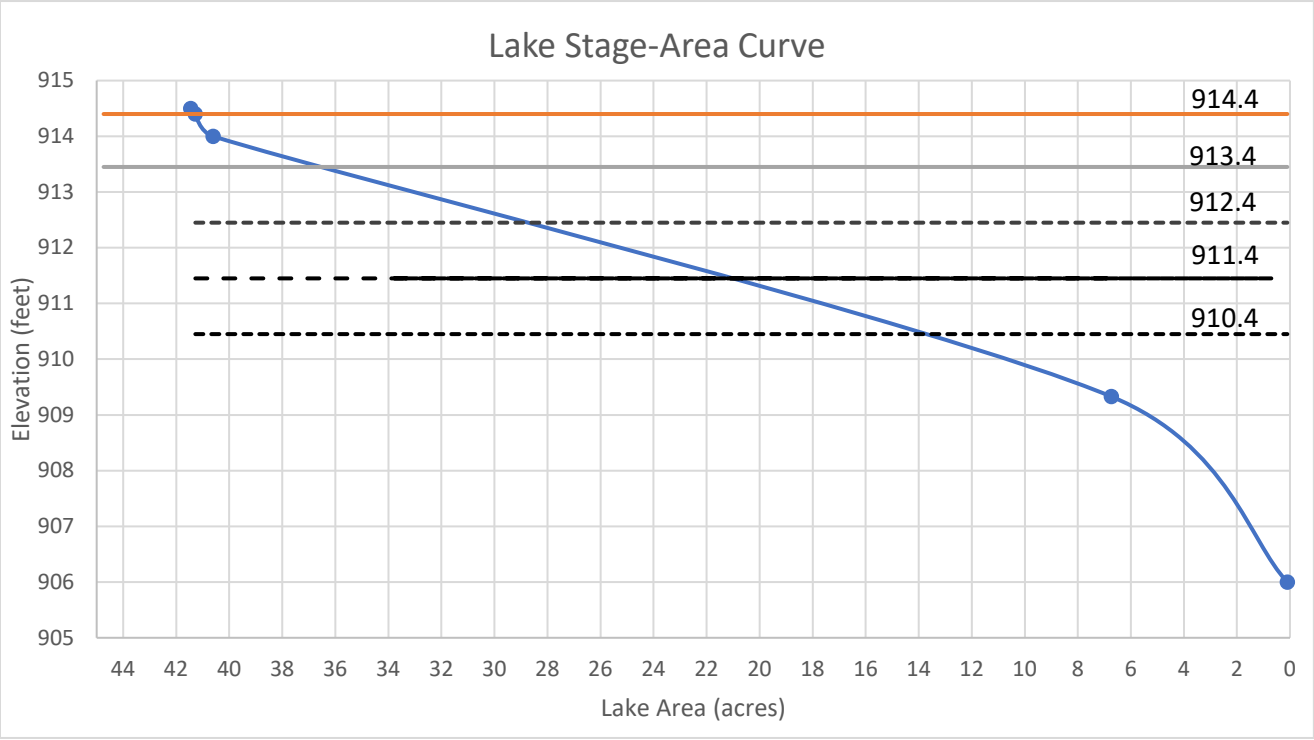


Figure 13 Stage-Area curve for Duck Lake

Lowering the outlet elevation could impact approximately 4.5 acres of the lake where the inundation period would decrease and become more seasonal (Table 8). However, the emergent species currently present in the shallow areas (bulrush, blue flag iris, cattails, smartweed) are not highly sensitive to changes in water depth and will likely persist. Further it could expand the area where bulrush grow, a high-quality lakeshore species. This expansion may be offset by an increase in dense cattail stands that are highly aggressive in shallower waters. While these changes are speculation, it highlights the potential shifts in the riparian or shallow water aquatic plant community that can occur with elevation changes. These changes can be beneficial if they expand desirable species or deleterious if aggressive species such as cattail take over resulting in less diverse community. A more detailed bathymetry would be necessary to determine the potential changes to the shallow lake areas.

Table 10 Areas of depth contours for the two different outlet elevations.

Depth (feet)	Outlet Elevation at 914.4 (Acres)	Outlet Elevation at 913.45 (Acres)
0 to 1	4.5	7.5
1-2	7.5	8
2-3	8	8

Conclusions

Hydrologic Analysis

- Measured water surface elevations in Duck Lake indicate that after 2014, there is an observable decrease in the water surface elevation in the lake. Prior to 2007 the average measured water surface elevation was 914.1, whereas after 2014 the average water surface elevation is 913.6.
- There is not a strong correlation between the average measured lake level elevation and the annual precipitation amount. This suggests that water levels in the lake are influenced more by short rainfall events, and less by long-term changes in precipitation trends, which is typically the case for lakes with defined outlets.
- Continuous simulation of 73-years of observed rainfall indicate that water levels will be lower for the 2014 outlet compared to the 1969 outlet configuration.
- The lower outlet control elevation reduces the 100-year flood elevation by about 1 foot, thus providing additional freeboard to riparian structures and increasing the systems climate resiliency from a flood risk management perspective.

Water Quality Summary

There does not appear to be any potential impact to water quality in Duck Lake with potential changes in the surface water elevation outlined in this memo. Evidence for no change includes:

- Water quality was very good in recent years with the surface water elevation regime of the new outlet structure.
- Duck Lake is likely not sensitive to the changes in lake volume associated with the change in outlet control elevation because it has a small watershed to lake area ratio and a long residence time.

Ecological Summary

Changes in the ecological condition of the lake are likely to only occur in the nearshore riparian areas where the depth of water and duration of inundation could impact the associated plant community. Conclusions include:

- Changes in the water surface elevation regime are unlikely to change the submerged aquatic vegetation community. Water quality and clarity would support a healthy native population. Other stressors such as goldfish and invasive plant species are currently limiting the submerged aquatic vegetation community.
- Fisheries are unlikely to be impacted by the change in water surface elevation. The change is unlikely to limit habitat areas or increase the anoxic volume of the lake. Fish kills, which likely benefit water quality, occurred both before and after the noticeable change in water surface elevations in 2014. However, the reduced water volume may decrease the available oxygen below the ice.

- The greatest potential for change is likely in the nearshore riparian areas where the frequency and duration of inundation will likely change. However, a detailed lake bathymetry is not available for this assessment and would require specific analyses to determine the impacts. It should also be noted that predicting changes in the plant community can be quite difficult.

Recommendations

Based on the available information the following list of recommendation provides some potential actions to advance the discussion:

- Present the information in this memo to the City of Eden Prairie and the DNR to engage in a dialogue about how to best protect the resource and improve the fishery.
- Conduct a fisheries survey of Duck Lake in 2022 to better understand the current fishery and further inform the analysis of potential impacts because of the outlet modification.
- Conduct a detailed bathymetric survey of the lake to improve the accuracy of volume and residence time estimate as well as the potential shoreline exposure area at various control elevations.
- Collect dissolved oxygen measurement in the water during the winter
- Conduct a survey of shoreline conditions and vegetation community.
- Compile low floor elevation data for riparian structure to further assess the flood risk management implications of the two outlet elevations.
- Work with the City and DNR to hold an informational meeting to further document and understand the riparian owners desire for a lake level.

SF-00006-02

STATE OF MINNESOTA

DEPARTMENT OF NATURAL RESOURCES

Office Memorandum

TO : File 79-6056

DATE: June 13, 1983

FROM : Kent Lokkesmoe, Regional Hydrologist
Metro Region Division of Waters

PHONE:

SUBJECT:

This file is closed. The permit application to lower the control of elevation was denied and no demand for hearing was made.

ch

444 Lafayette Road, Space Center Bldg., St. Paul, MN 55101

296-4810

August 3, 1979

City of Eden Prairie
c/o Martin J. Hanson
8950 Eden Prairie Road
Eden Prairie, Minnesota 55344

CERTIFIED

Dear Mr. Hanson:

RE: ORDER OF THE COMMISSIONER, APPLICATION 79-6056

The Department of Natural Resources has reviewed the City's application for a permit to modify the water level control structure of Duck Lake (27-69), Hennepin County, SW¼, SE¼, Section 5, T116N, R22W.

It has been determined that the application must be denied, based on the following:

1) Minnesota Code of Agency Rules 1.5024 "Water level controls and dam construction or reconstruction" state the policy of the DNR is to "oppose the artificial manipulation of water levels except where the balance of affected public interests clearly warrants the establishment of appropriate controls, and it is not proposed solely to satisfy private interests."

2) The permit rules, Section 1.5024 B 1 b, also provide that the proposed facilities shall be "reasonably consistent with natural conditions".

3) The ordinary high water level has been determined to be 915.3, NGVD. The existing control structure is at elevation 914.4, NGVD and the proposed elevation is 913.2.

4) The permit rules, Section 1.5024 b 1. d, states that permanent lake level control facilities shall be approved when..... justification has been made of the need in the terms of public and private interests and the available alternatives, including impact on receiving waters and public uses thereof, through a detailed hydrologic study.

5) The public comments voiced at theppublic hearing held on February 14, 1979, reflect very little public support for the project.

6) The Riley-Purgatory Creek Watershed District recommended denial of the permit application.

Minnesota Statutes, Chapter 105, quotes in part as follows: "In all permit applications, the applicant has the burden of proving that the proposed project is reasonable, practical, and will adequately protect public safety and promote the public welfare."

In view of our observations, we cannot conclude that your proposal is indeed reasonable, practical, and will promote the public welfare; threrfore, the application in all respects is denied.

If you wish to contest this determination, you have the right to demand a public hearing, under Chapter 105, Minnesota Statutes, provided such demand is made within 30 days of receipt of this order.

Sincerely,

DIVISION OF WATERS

Larry Seymour
Director

LS/JDJch

cc: Darrell Hanson, C.O.
Riley-Purgatory Creek WSD
R. Obermeyer, Barr Engineering
Hennepin County SWCD
Division of Waters, St. Paul

ATTACHMENTS TO COMMISSIONER'S ORDER

Attached is the Order of the Commissioner relating to waters of the State of Minnesota. Pursuant to Minnesota Statutes, Section 105.44, Subdivision 3 and 6, the applicant, the managers of the watershed district, the board of supervisors of the soil and water conservation district or the mayor of the city may demand a hearing on the Order provided the demand for hearing and the bond required by subdivision 6 be filed with the Commissioner within 30 days. The statutes further provide that if no demand for hearing be made or if a hearing is demanded but no bond is filed as required by subdivision 6, the order shall become final at the expiration of 30 days after mailed notice thereof and no appeal of the order may be taken to the district court.

Subdivision 6 requires that an applicant filing a demand for a public hearing execute and file a corporate surety bond or equivalent security to the state of Minnesota. The bond or security shall be conditioned for the payment of certain costs and expenses of the public hearing if the Order is affirmed without material modification; however, the applicant's liability is limited to $750.00. No bond or security is required of a public authority which demands a hearing. The $750.00 limit does not apply when a public hearing is demanded by a public authority which is not the applicant.

ADMIN 1000 (Rev. 1/78)

STATE OF MINNESOTA

Office Memorandum

DEPARTMENT Attorney General
Natural Resources

TO : FILE

DATE: 8-8-79

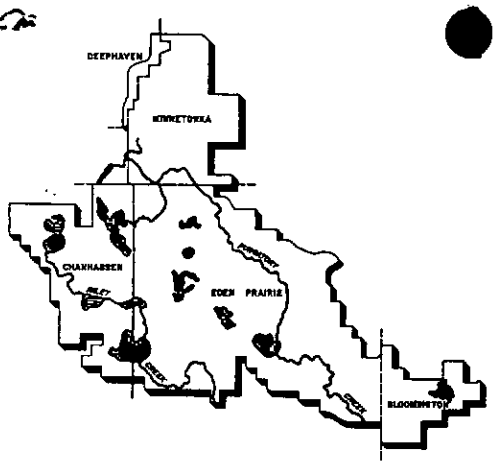
FROM : CARL CONNEY Carl Conney

PHONE:

SUBJECT: Order of Commissioner
Application 79-6056

This file appears in order. My comments are as follows:

1. In #3, the statement is made that the ordinary high water level has been determined to be 915.3, which may mislead people to believe that the Commissioner is establishing O.H.W. under M.S. § 105.43.



Riley-Purgatory Creek Watershed District

8950 COUNTY ROAD #4
EDEN PRAIRIE, MINNESOTA 55343

April 26, 1979

79-6056

TO PA & RETURN KL

Mr. Kent Lokkensmoe
Deparment of Natural Resources
1200 Warner Road
St. Paul, Minnesota 55106

Re: Duck Lake Water Levels - Permit Application - City of Eden Prairie

Dear Mr. Lokkensmoe:

At the last regular meeting of the Riley-Purgatory Creek Watershed District held on April 4, 1979, the Board of Managers recommended that the permit application of the City of Eden Prairie to set water levels of Duck Lake be denied. In that regard, please find enclosed an excerpt of the minutes noting action taken by the Board of Managers at that meeting. Should you have any questions regarding this recommendation of the Riley-Purgatory Creek Watershed District, please feel free to contact the undersigned.

Very truly yours,

Donald F. Pennie

Donald F. Pennie, President
RILEY-PURGATORY CREEK WATERSHED DISTRICT

DFP/njr
Enclosure
cc: Board of Managers
Mr. Robert Obermeyer
Mr. Frederick S. Richards
City of Eden Prairie

Chapter 105 Permit Application - Minnesota Department of Natural Resources - Duck Lake - Eden Prairie

The managers renewed consideration of the pending permit application before the Minnesota Department of Natural Resources submitted by the City of Eden Prairie to seek authority to set the water level of Duck Lake by establishing a control structure in connection therewith. General discussion followed during which the managers noted that there may well remain a question as to whether any flooding, as being experienced by some riparian land owners, would be resolved in the event the water levels of Duck Lake were lowered. Following general discussion during which the managers again reviewed the transcript of the public hearing held in February of this year, it was moved by Peterson, seconded by Rahr that the Board of Managers recommend to the Department of Natural Resources that the city's application seeking permission to lower the lake levels of Duck Lake be denied. A roll call vote on the motion was as follows:

PETERSON	YES
RAHR	YES
PENNIE	YES

Chairman Pennie advised the managers and those present that the district would inform the Department of Natural Resources that the watershed district would recommend that no permit be issued to the city as requested.

Mr. Pennie then suggested that the riparian owners of Duck Lake attempt to arrive at a consensus of what would be the most appropriately established lake levels and outlet discharge elevations for Duck Lake taking into account all riparian land owners. Mr. Pennie reported that, at his request, the watershed district's engineers had prepared and submitted to the managers a proposal to undertake a goundwater study for Duck Lake. Mr. Pennie noted that this proposal was prepared by the watershed district engineers in order to respond to some suggestions that the flooding problem being experienced by various riparian land owners was due to groundwaters and not the surface water lake levels of Duck Lake. In regard to the engineering proposal, Mr. Pennie further commented that the watershed district would not undertake this study at its cost inasmuch as this appeared to be a private matter and not one involving a public project at this time. Dr. William M. McKewan, a resident in this area, was present to acknowledge these comments and indicated that the Duck Lake Homeowners Association would consider several of these matters mentioned by Mr. Pennie and the other managers. In any event any further consideration by the managers with regard to undertaking necessary studies to attempt to find alternate solutions to the various flooding problems which are reoccurring in the Duck Lake area was tabled until such time as the residents in that area could discuss among themselves and/or further with the city possible solutions to these problems and prepare and submit to the watershed district any appropriate petitions which the district may then consider. Chairman Pennie so ordered the matter continued.

Duck Lake Exhibit H
2-14-79

November 15, 1978

MEMO

TO: Duck Lakeshore Property Owners

FROM: City of Eden Prairie Engineering Dept.

SUBJECT: Duck Lake Outlet Control Level

Dear Lakeshore Owner:

The purpose of this memo is to explain and help clarify the City's proposed plan to ajdust the elevation of the outlet control structure at the southeast corner of Duck Lake.

In response to local residents, the City is requesting approval from the Minnesota Department of Natural Resourses (DNR) to lower the level control outlet from 914.43 to 913.2 in Duck Lake. The current elevation of the lake is 913.2, as measured by the City of Eden Prairie Engineering Department on November 14, 1978. The lower basement elevations around Duck Lake range from 912.1 to 913.1 and experience water problems in the spring and following heavy summer rainfalls. These houses were constructed prior to the establishment of the present level control structure in the spring of 1969. The new outlet elevation will not adversely affect the 100-year flood level of 916 as determined in the Eden Prairie Drainage Plan, September, 1970.

The City submitted the application to the Minnesota DNR along with copies to the Riley-Purgatory Creek Watershed District, Hennepin County Shoreland Management Department, and Hennepin County Soil and Water Conservation District on August 18, 1978. At the September 6 meeting of the Watershed District, the Board of Managers requested the DNR to hold a public hearing on the permit application. In a letter dated November 6, 1978, Ronald Harnack of the DNR suggested a public hearing be held by the City and/or Watershed District with a representative of the DNR. Advance notice of this meeting will be provided to all Duck Lake lakeshore owners.

The Minnesota DNR established File #79-6056 on this permit application on August 22, 1978. A copy of the permit application and historic water levels can be seen at the City Offices from 8:00 A.M. to 4:30 P.M. If you have any questions on this matter, you may contact the Engineering Department at 941-2262.

Engineering Dept.
CITY OF EDEN PRAIRIE

Duck Lake Exhibit E
2-14-79

MEMO

February 12, 1979

TO WHOM IT MAY CONCERN

SUBJECT: Duck Lake Outlet Control Level

FROM: Carl Jullie, P.E. Director of Public Works
City of Eden Prairie

In August of 1978, the City engineering staff submitted an application to the Minnesota Dept. of Natural Resources, with copies to the Riley-Purgatory Creek Watershed District, the Hennepin Co. Shoreland Management Dept. and the Hennepin Co. Soil and Water Conservation District for a permit to lower the top edge of the outlet control structure at the southeast corner of Duck Lake. The purpose of this adjustment would be to help reduce the back-up of storm water in the drainage swale north of Padons Dr. and west of Duck Lake Road as noted on attached Exhibit A. This water back-up is a concern to the adjacent residents because it results in soft, wet ground that is hard to maintain, mosquito breeding close to the homes and an increase in the ground water pressure which adds to wet basement problems. The basement elevations of houses in the area are noted on Exhibit A.

At the Sept. 6, 1978 meeting of the Watershed Dist., the Board of Managers suggested that a public hearing be held on this matter. The City staff concured and requested the Board of Managers to call for a public hearing on February 14, 1979. The areas notified of this hearing are within the limits shown on Exhibit A. The owners of record per the tax statements were mailed notices on January 26, 1979 and the notice was published in the Eden Prairie News on February 1 and 8, 1979.

Exhibit B shows the proposed adjustment of the outlet control structure. Presently, the level of Duck Lake must rise to elevation 914.4 before water can begin to flow over the edge of the box weir structure and into the 15" discharge pipe, the bottom of which is at elevation 913.2. The discharge pipe follows the northerly side of the railroad tracks and outfalls into Purgatory Creek east of Co. Rd. 4. Whenever the lake level exceeds elevation 913.2, then water begins to back up in said drainage swale north of Padons Drive causing the problem noted.

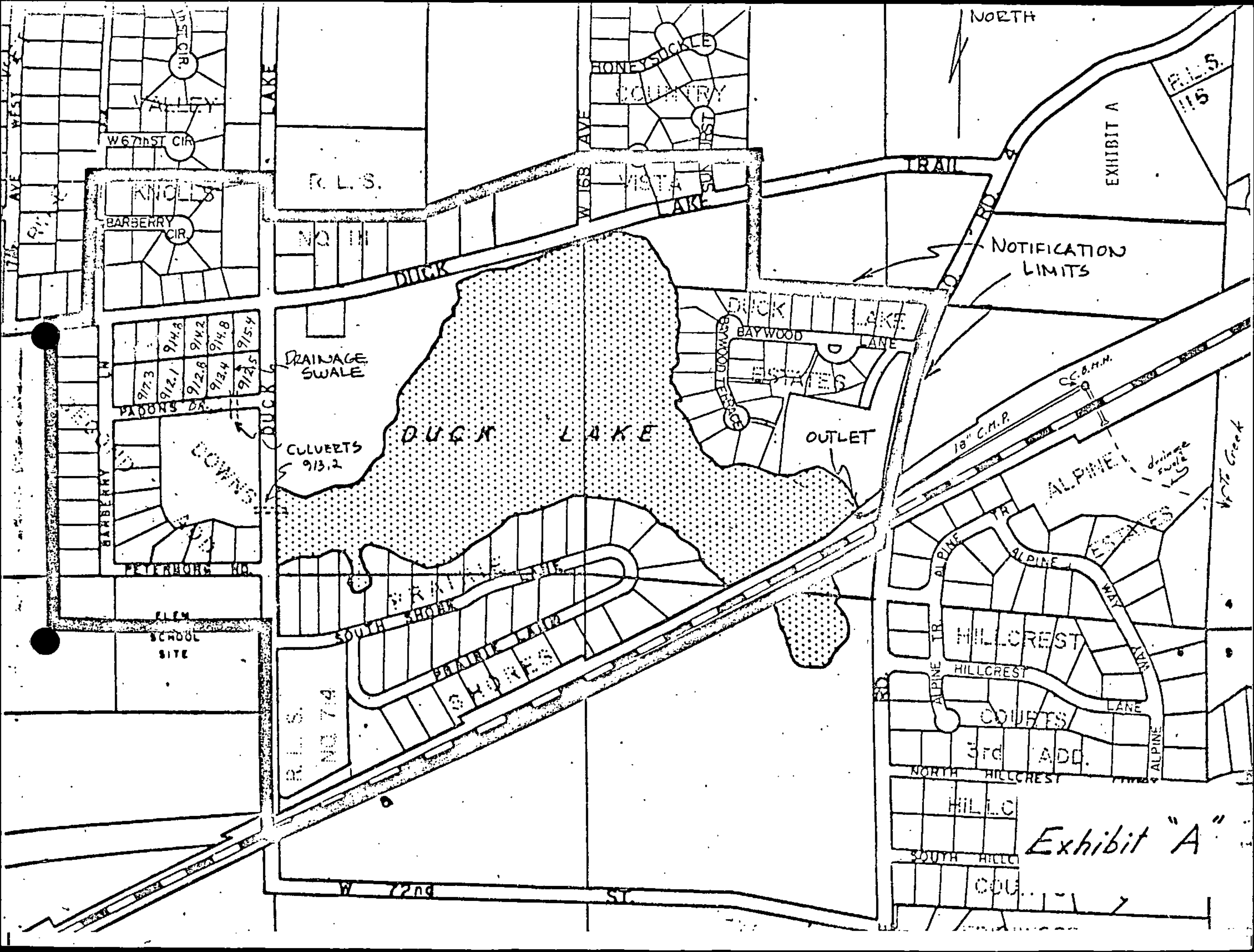
Our proposal is to remove the front face of the box weir at the outlet, so that water can begin to flow out of the lake at elevation 913.2 rather than 914.4. During periods of heavy precipitation and runoff, the lake level could still rise above 913.2 temporarily, but then would return in a matter of hours after the precipitation or snowmelt stopped to the 913.2 "normal" elevation. During dry periods, the level would of course continue to recede below 913.2 due to evaporation and seepage.

We do not believe that the proposed elevation adjustment would cause any adverse effects to the lakeshore property or the water quality of Duck Lake. The proposed elevation of 913.2 is the same level observed in November, 1978 which seemed to match the shoreline very well and the drainage swale north of Padons Drive was dry. The Rieke-Carroll-Muller Assoc. report of August, 1967 Duck Lake Drainage Study (Exhibit C) did recommend that the lake level be set at 913 in the fall of each year to accommodate the spring run-off. Our proposal of a 913.2 level is consistent with this recommendation.

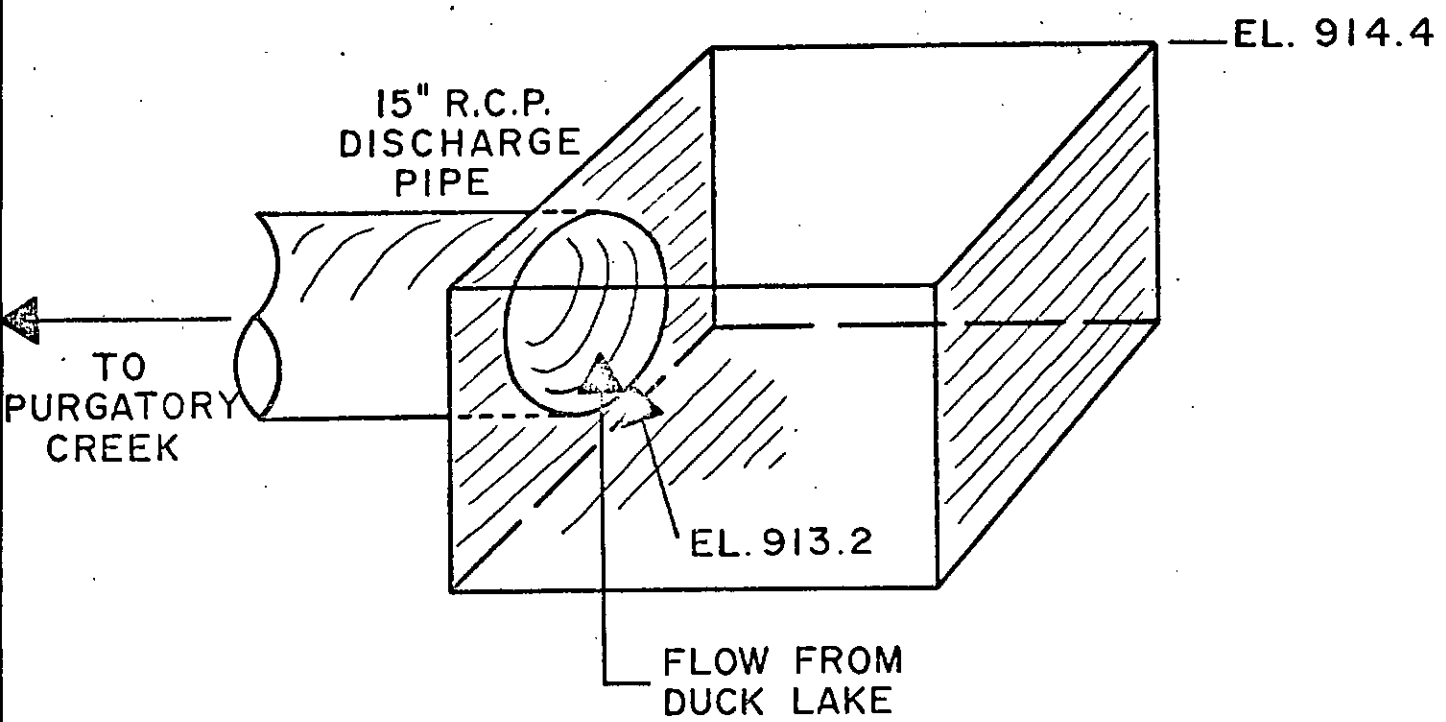
If any unanticipated problems do occur as a result of the proposed elevation adjustment, the box weir can easily be restored to its original condition by the City's maintenance crews.

Exhibit D is a record of Duck Lake surface elevations per records of the Riley-Purgatory Creek Watershed District.

Attached also are copies of correspondence received to date regarding this matter.


NORTH
R.L.S. 115
EXHIBIT A
TRAIL
HONEYSUCKLE
COUNTRY
VISTA
LAKE
DUCK
R.L.S.
NO 111
KNOLLS
BARBERRY CIR
W 67th ST CIR
NOTIFICATION LIMITS
DUCK LAKE ESTATES
BAYWOOD LANE
BAYWOOD TERRACE
DRAINAGE SWALE
CULVERTS 913.2
DUCK LAKE
OUTLET
18" C.M.P.
drainage swale
ALPINE ESTATES
ALPINE TR
ALPINE WAY
HILLCREST
HILLCREST LANE
COURTS
3rd ADD.
NORTH HILLCREST
HILLC
SOUTH HILLC
COU
PRAIRIE LAKE
SHORES
SOUTH SHORE
R.L.S. NO 714
PETERBURG RD
PADONS DR.
BARBERRY
ELEM SCHOOL SITE
W 72nd ST.
Exhibit "A"

"BOX WEIR OUTLET"
DUCK LAKE



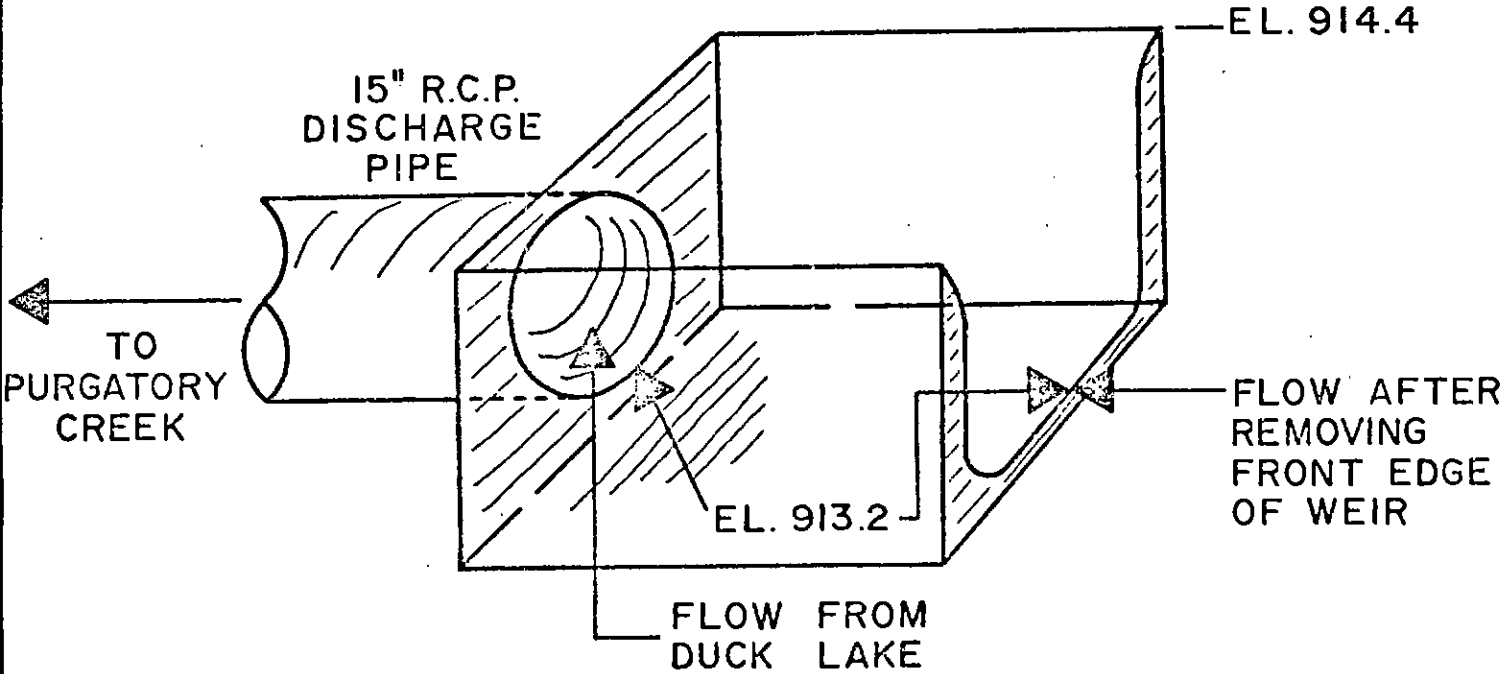


EXHIBIT B

CITY OFFICES / 8950 EDEN PRAIRIE ROAD / EDEN PRAIRIE, MINNESOTA 55344 / TELEPHONE (612) 941-2262

eden prairie

August 18, 1978

79-6056

Mr. Ron Harnack
Department of Natural Resources
Division of Waters
1200 Warner Road
St. Paul,, MN 55106

Dear Mr. Harnack:

Please find enclosed our Application for Permit to work in public waters. If you have any questions on this matter please feel free to contact me at 941-2262.

Sincerely,

Martin J. Hanson
Engineer

MJH:kh
Enclosure

79-60056

EXHIBIT A

PROPOSAL

In response to local residents, the City of Eden Prairie is requesting approval from the Minnesota Department of Natural Resources to lower the level control outlet from 914.43 to 913.2 on Duck Lake. At the lake's current elevation 913.8 (July 18, 1978,) the City is receiving complaints of basement water from residents of Padons Drive. The lower basement elevations in this area range from 912.1 to 913.4 and were constructed prior to the establishment of the present level control structure in the spring of 1969. The new outlet elevation will not affect the 100 year flood elevation of 916 as determined in the Eden Prairie Drainage Plan, September, 1970.

W- 54
Rev. 74

STATE OF MINNESOTA
DEPARTMENT of NATURAL RESOURCES

74-6056

APPLICATION FOR PERMIT TO WORK IN PUBLIC WATERS

City of Eden Prairie, the owner of land in Government lot(s) _____,
(print or type applicant's name)

quarter section(s) SW ¼, SE ¼ section(s) 5, township no.(s) 116 N, range(s) 22W,

8950 Eden Prairie Road, Eden Prairie, MN
(fire no., box no. or address) *(city, village or post office)*

county(ies) Hennepin, which is riparian to Duck Lake,
(name of lake or stream)

applies pursuant to Minnesota Statutes Chapter 105 and other applicable statutes for a permit to work in the public water(s) named above, in accordance with all data, maps, plans, and other information submitted herewith and made a part hereof.

PROPOSAL

IT IS PROPOSED TO: *(check)* ☐ excavate, ☐ fill, ☐ construct, ☐ remove, ☐ install, ☐ abandon, or ☒ other *(specify)* modify

THE FOLLOWING: *(check)* ☐ dam, ☐ shore-protection, ☐ shoreline, ☐ harbor, ☐ channel, ☐ bridge, ☐ culvert, ☐ wharf, ☐ obstruction, or ☒ other *(specify)* level control structure (see exhibit A)

JUSTIFICATION

Explain why this project is needed:

Present water surface elevation is below outlet elevation, and it causing basement flooding in backwater areas on the western side of the lake.

ENVIRONMENTAL IMPACT

1. Anticipated changes in water and related land resources:

Small reduction in surface area

2. Unavoidable but anticipated detrimental effects:

Possible increase in aquatic vegetation

3. Alternatives to the action proposed:

1) Raising existing houses and basement elevations
2) Remove basement floors and replace with waterproof slab, waterproof walls

PROJECT SITE DATA

1. Describe the type and amount of aquatic vegetation present: Open water with small areas of reeds in undeveloped or roadside shoreland. Urban landscaping borders remaining shoreline

2. Describe the nature of the material beneath the water: Sile and muck

3. Describe the nature of the upland area: Suburban residential, rural

4. Describe type and amount of nearby shoreland development: 60% single family residential
40% rural

5. ENCLOSE SKETCH DESCRIBING WATER LEVEL FLUCTUATIONS. *(see instructions)* See Exhibit B

ATTACH EXTRA SHEETS IF NECESSARY

(continued on reverse side)

RECEIVED
AUG 21 1978
REGION VI
WATERS

CONSTRUCTION DATA *(also attach sketch or drawing)*

Channelling	Existing	Proposed	Alterations along shore	Proposed
Total length *(feet)*			Distance along shore *(feet)*	
Length in lake/stream *(feet)*				
Bottom width *(feet)*			Distance waterward *(feet)*	
Side slopes *(ratio)*			Thickness of fill material *(feet)*	
Average depth *(feet)*				
Gradient *(%)*			Depth of excavation *(feet)*	

1. Describe type of excavation equipment to be used, if known:

2. Describe location *(include map)* and characteristics of spoil disposal site proposed:

3. Would maintenance excavation be necessary? *(check)* ☐ YES ☐ NO Explain:

4. Volume of material to be removed initially *(cubic yards)*: Muck or silt _____

Sand or gravel _____ Rock or stone _____

ATTACHMENTS ☒ $15.00 filing fee, ☐ photographs, ☒ other *(specify)* Exhibits A & B

Applicant declares that information submitted herewith and statements made herein are a true and correct representation of the facts, and that the filing of this application and information with the Commissioner of Natural Resources is prima facie evidence of the correctness thereof.

COMPLETE APPLICATION SUBMITTED TO:

(1) _____
Name of city or township

Riley-Purgatory Creek
street & post office

(2) _____
Name of watershed district

(3) Shoreland Management Administrator of Hennepin County

(4) Hennepin County Soil & Water Conservation Dist.

Dated this 18TH day of August 19 78

Signed Martin J. Hanson
(applicant)

For: City of Eden Priarie

Address 8950 Eden Prairie Road

City Eden Prairie

State Minnesota Zip code 55344

Phone 941-2262

State of Minnesota)
County of Hennepin) ss. AFFIDAVIT

on this 18th day of August, 19 78 before me personnally appeared _____

Martin J. Hanson Paid $15 8/22/1978

who being first duly sworn and to me known to be the person _____ who executed the foregoing application, acknowledge(s) that he executed the same as his own free act and deed and that the statements, maps, plans, documents, and other supporting data are true and correct according to his best knowledge and belief.

Eugene E. Schumacher

Notary Public Hennepin County

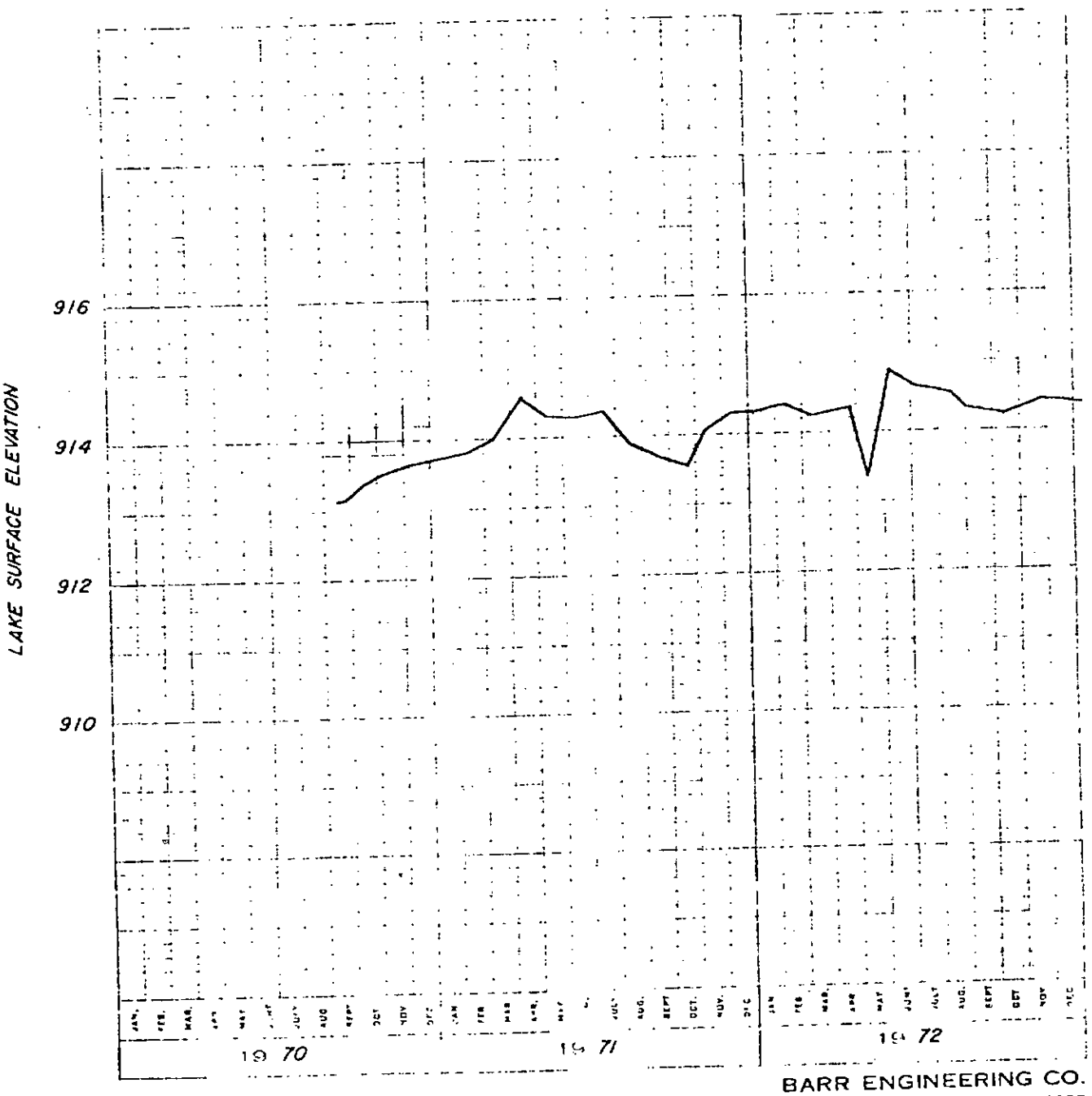
My commission expires April 9th 19 79

79-0056 EXHIBIT B

1 of 3

PROJECT: Riley-Purgatory Creek Watershed District LAKE GAGE NO. 2

LOCATION: Duck Lake



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PROJECT: RILEY-PURGATORY CREEK
WATERSHED DISTRICT

19-056

EXHIBIT B
2 of 3
LAKE GAGE NO. 2

LOCATION: DUCK LAKE

Elevation Previous High	914.88	6-6-72
Elevation Previous Low	913.14	9-15-70

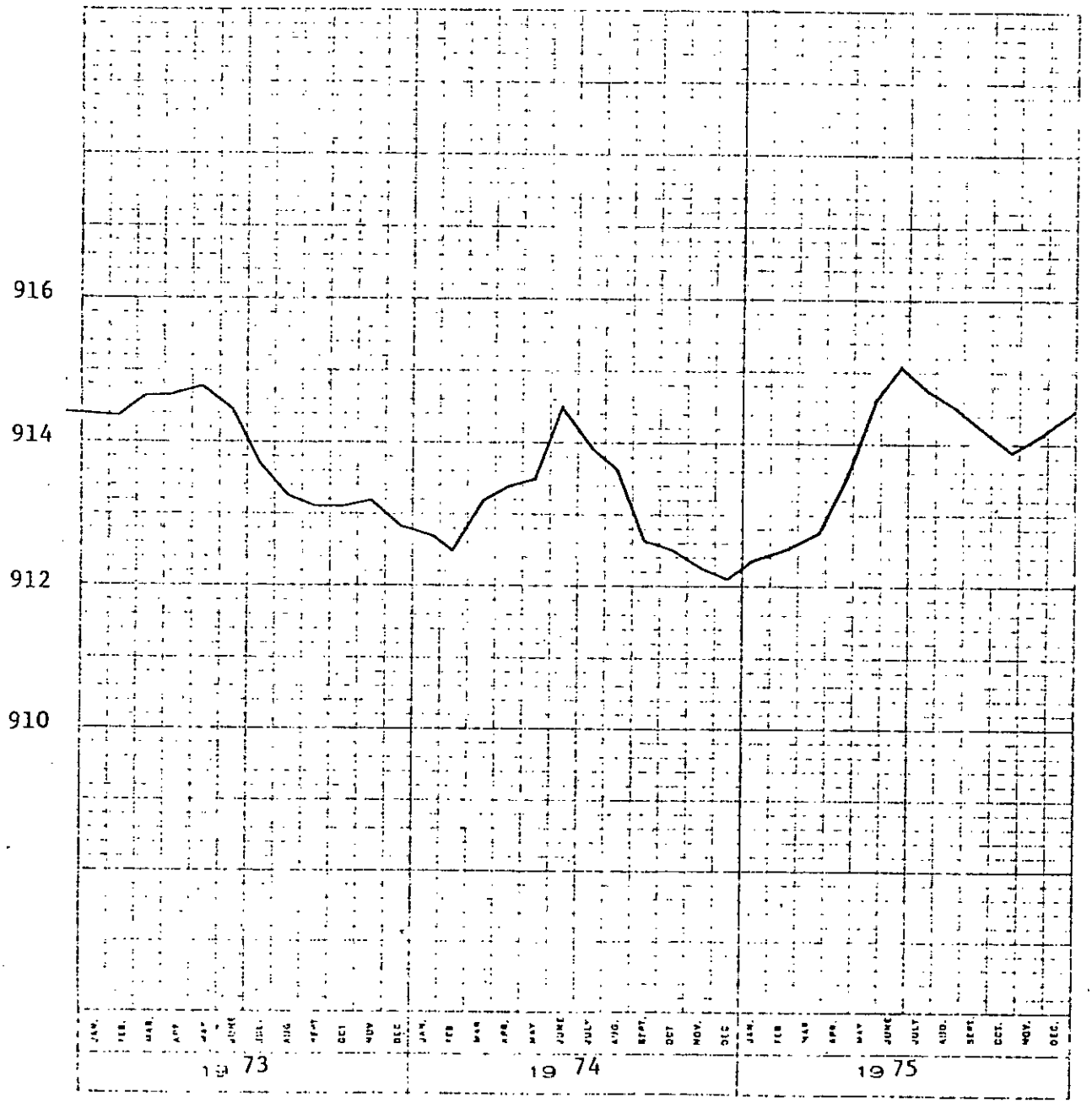

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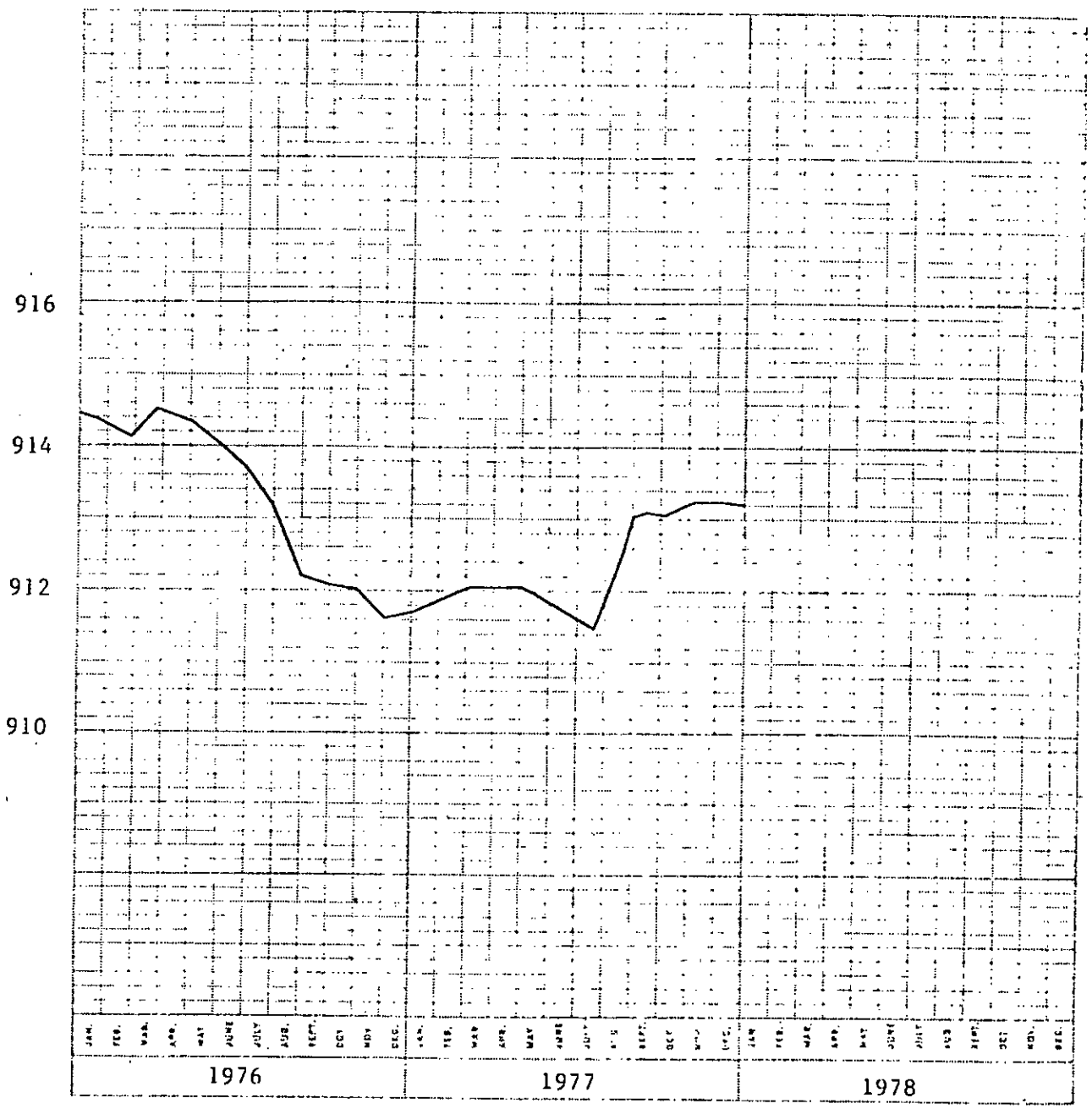
EXHIBIT B
3 of 3

PROJECT: RILEY-PURGATORY CREEK WATERSHED DISTRICT

LAKE GAGE NO. 2

LOCATION: DUCK LAKE

Elevation Previous High	915.14	6-19-75
Elevation Previous Low	911.49	6-25-77



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2509-61