# RED LAKE WATERSHED DISTRICT

Wednesday, November 10, 2021 9:00 a.m.

# Agenda

9:00 a.m.	Call to Order	Action
	Review and approve agenda	Action
	Requests to appear	Information
	October 28, 2021 Minutes	Action
	Financial Report dated November 9, 2021	Action
	Black River Impoundment, RLWD Project No. 176-Update	Information
	Demarais/Hanson Outlet Project, Red Lake River 1W1P, RLWD Project No. 149-Construction Update	Information
	Schirrick Dam Outlet Repair, Project, RLWD Project No. 25 Quotes	Info./Action
	Thief River Bank Stabilization Project, RLWD Project No. 149A Change Order No. 1 Pay Estimate No. 2	Information Action Action
	Thief River Falls Westside Flood Damage Reduction Project, RLWD Project No. 178 – Proposed Cost Share of Change Order No. 8 Enforcement Letter	Info./Action Information
	Pine Lake Flood Damage & Fish Habitat Project, RLWD Project No. 26B-Construction Update	Information
	Dam Maintenance, RLWD Project No. 50 Knutson Dam and Thibert Dam	Info./Action
	Moose River Impoundment, RLWD Project No. 13 North Structure Repair	Info./Action
	Frontier Precision GPS Survey Equipment	Info./Action
	Table Permit No. 21151, Daniel Caillier	Action
	Permits: No. 21173 - 21178	Action

Accounting Software Info./Action
Administrators Update Information

Legal Counsel Update Information

Managers' updates Information

Adjourn Action

# **UPCOMING MEETINGS**

November 11, 2021 Veteran's Day-Office Closed
November 16, 2021 RRWMB Meeting, Ada, 10:00 a.m.

November 24, 2021 RLWD Board Meeting, 9:00 a.m. (note change of date)

November 25-26, 2021 Thanksgiving-Office Closed
December 1-3, 2021 MAWD Conference-virtual
December 9, 2021 RLWD Board Meeting, 9:00 a.m.

December 14, 2021 RRWMB Annual Legislative Meeting, Ada, 10:00 a.m.

December 23, 2021 RLWD Board Meeting, 9:00 a.m. December 24, 2021 Christmas Holiday-Office Closed

January 11-13, 2021 39th Annual Red River Basin Land & Water International Summit Conference



# RED LAKE WATERSHED DISTRICT Board of Manager's Minutes October 28, 2021

President Dale M. Nelson called the meeting to order at 9:00 a.m. at the Red Lake Watershed District Office, Thief River Falls, MN.

Present: Managers: Dale Nelson, Gene Tiedemann, Terry Sorenson, Allan Page, LeRoy Ose, Brian Dwight and Tom Anderson. Staff Present: Myron Jesme, Tammy Audette and Legal Counsel, Delray Sparby.

The Board reviewed the agenda. A motion was made by Tiedemann, seconded by Sorenson, and passed by unanimous vote that the Board approve the agenda. Motion carried.

The Board reviewed the October 14, 2021, minutes. Motion by Sorenson, seconded by Dwight, to approve the October 14, 2021, Board meeting minutes as presented. Motion carried.

The Board reviewed the Financial Report dated October 27, 2021. Motion by Anderson, seconded by Ose, to unanimously approve the Financial Report dated October 27, 2021. Motion carried.

Staff Member Arlene Novak reviewed the General Fund Budget as of September 30, 2021.

Discussion was held on the construction of Ditch 16, RLWD Project No. 177 as it pertains to the Highway Heavy contractual error and the settlement agreement that the District is liable for paying. Administrator Jesme stated that this item had been added to the October 14, 2021 Board agenda and was overlooked on having discussion on the matter. Motion by Dwight, seconded by Tiedemann, to add Ditch 16, RLWD Project No. 177 to today's agenda. Motion carried.

Motion by Ose, seconded by Page, to designate Staff member Ann Joppru as an authorized signatory at all District Financial Institutions approved by the Board. Motion carried.

Chester Powell, Clearwater SWCD, presented information to the Board about conducting a pilot project along the Lost River, located in Section 20 and 21, Winsor Township in northern Clearwater County, which in under the jurisdiction of the District. The proposed project is to plant dormant willow stakes along the unstable and failing banks of the Lost River to establish woody perennial cover to stabilize the banks during peak flows. Data obtained during a WRAPS study on the Lost River is listed as having bank instability and is a priority resource concern. Powell stated that work would be completed in November, dependent on current temperatures. The Clearwater SWCD has funding for the project and will complete the installation. Motion by Tiedemann, seconded by Page, to grant permission to the Clearwater SWCD, for installation of willow stakes along the Lost River, RLWD Project No. 4. Motion carried. Powell stated that he will contact the local landowners.

Construction at the Pine Lake Flood Damage and Fish Habitat Project, RLWD Project No. 26B is almost complete. Engineer Nate Dalager, HDR Engineering, Inc., stated that the rock is in

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place, seeding is complete, and they are waiting on structural steel and gates for the structure. Dalager stated that the rock riffle structure is in place so the lake will be able to drain down if we get a large amount of rain. Currently there is no water coming out of the lake.

Nick Karlin and Dave Zavoral with R.J. Zavoral & Sons, Inc., and representatives from Midwest Boring company appeared before the Board to discuss the requested consideration for Change Order No. 8 for the Thief River Falls Westside Flood Damage Reduction Project, RLWD Project No. 178. Karlin mentioned that the requested Change Order has nothing to do with the pumping of water that had to be completed during summer rainfall events or additional work they encountered due to water entering the boring site. Karlin indicated that the consideration for Change Order #8 has to do with unusual conditions that were encountered under Highway 32, where large boulders were found while completing the directional boring. Karlin noted that it is not common to run into large boulders like they did in this area, stating that they did notify staff at HDR Engineering during the weekly meetings of what they encountered. Discussion was held on the amount of time that has passed since this issue was encountered and that the procedure for Change Orders, as stated in the specifications, were not followed. Karlin stated that the concerns were addressed between the engineer and the subcontractor, further stating that he felt the costs were presented in a timely fashion, expressing that it was a busy construction season, and they are doing the best they can. It was the consensus of the Board to authorize Administrator Jesme, representatives from the City of Thief River Falls and Engineer Nate Dalager, HDR Engineering, Inc., to meet with R.J. Zavoral & Sons, Inc. prior to the Final Payment Hearing on November 24, 2021 to further discuss the request for Change Order No. 8 and report back at the November 10, 2021 Board meeting.

Engineer Tony Nordby, Houston Engineering, Inc., stated that the contractor on the Black River Impoundment, RLWD Project No. 176, is working on connecting the lateral ditches behind the spoil bank. Staff from Houston Engineering, Inc. and the District, have created a punch list of items for the contractor to complete. Nordby stated that work along CSAH 12 is not completely seeded and wet conditions are slowing down final seeding. Graveling of the county and township roads discussed at a previous meeting will be completed next spring. R.J. Zavoral & Sons, Inc. will cost share a two mile stretch of gravel that they used as a haul road with off road equipment. Nordby noted that there will be one more pay estimate prior to winter. A meeting has been scheduled for November 4<sup>th</sup> to meet with the Corps and BWSR, to receive direction to move forward on the wetland banking.

A pre-construction meeting was held with Gladen Construction for the Demarais/Hanson Outlet Project, RLWD Project No. 149. Engineer Tony Nordby, Houston Engineering, Inc., stated that the contractor is anticipating being completed with construction in three weeks.

Engineer Tony Nordby, Houston Engineering, Inc., reviewed the Plans and Specifications for the Schirrick Dam Outlet Repair Project, RLWD Project No. 25. An amended DNR Dam Safety Permit is out for comment at this time. Quotes will be received at the District office until 9:00 a.m. on November 10, 2021. Motion by Ose, seconded by Page, to approve the Plans and Specifications for the Schirrick Dam Outlet Repair Project, RLWD Project No. 25. Motion carried.

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Rob Sip, Executive Director, RRWMB appeared before the Board to present information on the 2021 lidar collection areas. Sip stated that collection of the data is about 52% complete, with the contractor flying approximately 16 days. If the weather holds out, the contractor estimates that the work will be done in the next 2-4 weeks. Sip discussed the Lidar Media Day held on October 27<sup>th</sup>. Lidar information was last completed in 2009 at an approximate cost of \$5 million dollars. The estimated cost for 2021 data is \$2.3 million. Discussion was held on preparing for the 2022 legislative season, mentioning that the Minnesota House of Representatives will all be electronic this session. The RRWMB will host an Open House at their office in Ada, MN, inviting all local legislators to attend.

The Board reviewed the permits for approval. Motion by Tiedemann, seconded by Ose, to approve the following permits with conditions as stated on the permits: No. 21166, Moylan Township, Marshall County; No. 21167, Peter Nelson, Grand Plain Township, Marshall County; No. 21168, Lucas Wolff, Silverton Township, Pennington County; No. 21169, Bobby Miller, Star Township, Pennington County; No. 21170, Terry L Anderson, Reiner Township, Pennington County; No. 21171, Geraldine Lindemoen, Wyandotte Township, Pennington County; and No. 21172, Marion Sorenson, Mayfield Township, Pennington County. Motion carried.

The MAWD Annual Meeting will be held virtually on December 1-3, 2021.

Motion by Anderson, seconded by Tiedemann, to approve the River Watch Agreement between the District and the Clearbrook-Gonvick Independent School District #2311. Motion carried.

# Administrators Update:

- Jesme will participate virtually in the RRWMB held on October 19, 2021. Manager Ose will be in attendance at the meeting.
- Jesme will participate in the virtual Drainage Workgroup meeting this afternoon.
- The Thief River 1W1P Planning Work Group met on October 18, 2021.
- Clearwater River 1W1P Planning Work Group met on October 20<sup>th</sup> in preparation for the Policy Committee meeting on November 3<sup>rd</sup>.
- Included in the packet were various months of Water Quality Reports.

Administrator Jesme stated that he will meet with Staff member Tony Olson to complete his 6-month review. Jesme stated that Olson was hired at a Step 3 and recommended moving him to a Step 5 effective November 1, 2021. Motion by Sorenson, seconded by Ose, to approve moving Staff member Tony Olson from a Step 3 to a Step 5 effective November 1, 2021. Motion carried.

Administrator Jesme requested replacing the 55" monitor in his office as his current one is no longer working and is out of warranty. Motion by Page, seconded by Ose, to approve the purchase of a new 55" monitor for Administrator Jesme's office. Motion carried.

Administrator Jesme indicated that the Board of Managers will have to determine what fund the Highway Heavy settlement that the District is liable should be taken out of for the construction

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of Ditch 16, RLWD Project No. 177. Jesme reminded the Board that we did not include Highway Heavy documents in the Specifications for the project, which lead to a settlement handed down by the Minnesota Management and Budget (MMB) in the amount of \$118,078.30. The District was informed by the MMB, that the landowners on the project were not liable for the penalty, therefore it must be paid by the District. After considerable discussion, motion by Tiedemann, seconded by Dwight, to charge Project Development, RLWD Project No. 92 for the penalty in the amount of \$118,078.30, to be credited to the construction costs of RLWD Ditch 16, RLWD Project No. 177. Motion carried.

Manager Dwight discussed Clean Water Fund Grants that will be coming out in early 2022, and the need for discussion on the Fiscal Manager appointment for the One Watershed One Plan Projects. Further discussion will be held in early 2022.

Jesme updated the board on the meeting held with Brady Martz and Associates regarding the District's accounting software. Jesme indicated that a proposal should be ready for the next Board meeting.

Manager Tiedemann will participate in the MAWD Annual meeting.

Manager Ose stated that he attended the Lidar Media Day hosted by the RRWMB in Fargo and the BWSR meeting.

Manager Dwight will sit in on the November 4<sup>th</sup> Wetland Banking meeting for the Black River Impoundment Project, RLWD Project No. 176.

Manager Anderson stated that he will participate in the November 3<sup>rd</sup> Clearwater River 1W1P Policy Committee meeting.

Motion by Ose, seconded by Tiedemann, to adjourn the meeting. Motion carried.

LeRoy Ose, Secretary	

# RED LAKE WATERSHED DISTRICT Financial Report for November 10, 2021

Ck#	Check Issued to:	Description	Amount
online	EFTPS	Withholding for FICA, Medicare, and Federal taxes	5,295.59
online	MN Department of Revenue	Withholding taxes	982.89
online	Public Employees Retirement Assn.	PERA	3,335.95
online	Further	HSA & FSA	215.96
online	EFTPS	Withholding for FICA, Medicare, and Federal taxes	4,505.54
online	MN Department of Revenue	Withholding taxes	836.04
39162	HDR Inc.	TRF Westside Engeering Fees 178	7,328.61
39163	Ace Hardware	Blacksmith Hammer	29.92
39164	Corporate Technologies	Laptop for Nate, set up of laptop & move computer in Board Rm	3,595.25
39165	Don's Sewing & Vacuum	fix vacuum	77.00
39166	Farmers Union Oil	Gas for vehicles	810.80
39167	Fleet Supply	8 ton jack	49.99
39168	Further	HSA & FSA accounts fees	11.00
39169	TRF Hardware Hank	Posts for Clean Water	76.89
39170	HDR Inc.	Pine Lake Project #26B	19,358.66
39171	Hugo's	Meeting supplies	376.63
39172	Les's Sanitation	Garbage pickup	35.74
39173	Marco	Monthly copier maintenance	83.13
39174	Matrix Trust Company	Deferred Comp	1,366.78
39175	MN Energy Resources	Heating expense	20.00
39176	NCPERS Group	Life insurance premium	128.00
39177	Northwest Beverage, Inc.	H20 for office	23.50
39178	Oil Boyz Express Lube	Oil change for 2015 Ford Truck	70.20
39179	Pennington County Recorder	Recording Fee Project #176	92.00
39180	Pennington SWCD	Cost Share Stabilization - Gagnon & Myhre Project #164	3,524.01
39181	Popp Binding & Laminating Inc.	Black & Clear Bindings	33.82
39182	Red Lake Electric Cooperative	Dig out buried transformer boxes - Project 176	1,585.35
39183	Red Lake County SWCD	2020 Grant Project 149 & Project 149A	3,000.00
39184	Gene Tiedemann	Mileage - August/Sept/Oct	502.88
39185	TRF Times	Ad for Accounting Officer	100.00
	Payroll		-
	Check #12350-12363	<u> </u>	26,163.54
	Total Checks	\$	83,615.67

# Banking

Balance as of October 27, 2021	\$ 124,537.78
Total Checks Written	(83,615.67)
Receipt #22419 Northern State Bank - Monthly Interest	68.55
Receipt #22421 State of MN - Market Value Aid	36,200.52
Receipt #22422 State of MN - FDR Project #178	290,776.54
Balance as of November 10, 2021	\$ 367,967.72

Current interest rate is .20%

# American Federal Bank-Fosston

Balance as of October 27, 2021	\$ 2,492,374.43
Receipt #22418 Loren/Marjean Sanderson - Dental & Health for Nov	795.45
Receipt #22420 American Federal -Monthly Interest	1.113.88

Receipt #224023 Rent from Charles Zammert #60C Receipt #224024 HDR Check - voided ck #39070 - #178 Balance as of November 10, 2021 549.75 13,404.72 \$ 2,508,238.23

Current interest rate is .50%

# CHANGE ORDER NO. 1



125 3rd Street E Thief River Falls, MN 56701 P: 218.681.2951 F: 218.681.2987

Project Name: Thief River Streambank Stabilization Project

Contract dated: September 1, 2021 Owner: Red Lake Watershed District

To: Quality Spray Foam/Anderson | HEI Project No. 3655-0099

11374 215th Street

(Contractor)

Thief River Falls, MN 56701

This change is requested by Owner and made under the terms of or is supplemental to your present contract.

### Description of Change:

Item No. 2105.507, "Common Excavation (CV) (P)", required a planned quantity change due to a descripincy in existing ground surface during the design of Site B. It was determined that an additional 500 cubic yards of common excavation shall be paid for under bid item no. 2105.507 "Common Excavation (CV) (P)". All work shall be performed in acordance with MnDOT 2105 and Section 4.11 of the Speical Provisions to the Technical Specifications. Item 2105.507 "Common Excavation (CV) (P)" shall include all stripping, excavating, hauling, spreading, shaping, and compacting of material.

Adjust and/or change the following quantities to match the installed quantities:

Item No.	Description	Unit	Orig. or Prev. Changed Qty.		Unit Price	Amount of Increase / (Decrease)		
2105.507	Common Excavation (EV) (P)	Cu. Yd.	3,054	500.00	4.00	2,000.00		
Net Increase / (Decrease) this Change Order:								

# **PARTIAL PAYMENT ESTIMATE**

HEI Project No. 3655-0099

				F	PAYMENT NU	JMBER:	2	
Project: Thief Rive	er Streambank Stabil	ization Projects			PERIOD OF	ESTIMA	ГЕ:	
Location: Excel and	East Valley Townsh	ips, Marshall Count	y, Minnesota	FROM	10/9/2021	TO	10/29/2021	
CONTRACT	CHANGE ORDER	SUMMARY		E	STIMATE			
Change Order	Change Order AMOUNT			Original Contract \$ 9				
NO. DATE	ADDITIONS	DEDUCTIONS	4	nge Order		\$	2,000.00	
1 11/05/21	\$2,000.00		3. Revi	sed Contr	act (1+2)	\$	95,842.54	
			5. Store	k Complet ed Materia stments*		\$ \$ \$	101,058.22	
			1	total (4+5+	-6)	\$	101,058.22	
			8. Reta 9. Prev	inage rious Paym	5.00% nents	\$ \$	5,052.91 75,510.96	
TOTALS	\$ 2,000.00	\$ -		ount Due (7		\$	20,494.35	
NET CHANGE	\$ 2,000.00			iled Breakdo	own Attached if N	on-Zero Va	lue	
			RACT TIME					
		Completi	on Date Contract	· ·				
Original (days) Revised Remaining	N/A N/A N/A	On Schedule?	Yes				9/13/2021	
CONTRACTOR'S C	ERTIFICATION:			ENGINEE	ER'S RECOMI	MENDAT	ION:	
The undersigned Contract (1) All previous progress the Contract have been a incurred in connection wit (2) Title to all Work, malisted in or covered by this free and clear of all Lie covered by a bond accessecurity interest, or encur	payments received from pplied on account to disc the Work covered by praterials and equipment in a Application for Paymenns, security interests, are ptable to Owner indemi	Owner on account of Wharge Contractor's legiting Applications for Paymore Corporated in said World, will pass to Owner at the dencumbrances (exce	ork done under mate obligations nent; rk, or otherwise time of payment pt such as are	of my knowl with the term	edge, information	n and belief ct, the Conti	ractor is entitled to	
(3) All the Work covere Contract Documents and	ed by this Application for is not defective.	•			€ H	OUS'	TON ering, inc.	
Contractor:	Quality Spr	ay Foam/Anderson E	Exc.	Engineer:	0		1	
Ву:				Ву:	Jony (	ony Nordk	arlly oy	
Date:				Date:	11/5/202	21		
OWNER'S APPROV								
Owner:	Red Lak	e Watershed Distric	t	REMIT	PAYMENT TO	<b>O</b> :		
Ву:				11374	y Spray Foam 215th Street River Falls, M		on Exc.	
Date:					-,			



# **PAY ESTIMATE**

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HEI Project No. 3655-0099
Project: Thief River Streambank Stabilization Projects
Location: Excel and East Valley Townships, Marshall County, Minnesota
Contractor: Quality Spray Foam/Anderson Exc.

PAY ESTIMATE #:	2
SUBMITTED:	11/10/2021
BEGIN DATE:	10/9/2021
END DATE:	10/29/2021

ITEM					CONTRACT		CURRENT PAY ESTIMATE		PREVIOUS PAY ESTIMATES				DATE		
NO.	DESCRIPTION	UNIT	QUANTITY		PRICE	AMOUNT	QUANTITY		AMOUNT	QUANTITY		AMOUNT	QUANTITY	- 1	AMOUNT
<b>Original Cont</b>	ract Items														
2021.501	MOBILIZATION	Lump Sum	1.	\$	8,000.00	\$ 8,000.00		\$	-	1.	\$	8,000.00	1.	\$	8,000.00
2101.501	CLEARING AND GRUBBING	Lump Sum	1.	\$	10,000.00	\$ 10,000.00	0.15	5 \$	1,500.00	0.85	\$	8,500.00	1.	\$	10,000.00
2104.503	REMOVE PIPE CULVERTS	LIN. FT.	60.	\$	16.67	\$ 1,000.20		\$	-	60.	\$	1,000.20	60.	\$	1,000.20
2105.507	COMMON EXCAVATION (EV) (P)	CY	3,054.	\$	4.00	\$ 12,216.00	837.	. \$	3,348.00	2,217.	\$	8,868.00	3,054.	\$	12,216.00
2501.502	FLAP GATE FOR 18" CS PIPE CULVERT	EACH	1.	\$	378.34	\$ 378.34		\$	-	3.	\$	1,135.02	3.	\$	1,135.02
2501.503	18" CS PIPE CULVERT	LF	60.	\$	42.80	\$ 2,568.00		\$	-	140.	\$	5,992.00	140.	\$	5,992.00
2511.507	RANDOM RIPRAP CLASS III	CY	60.	\$	45.00	\$ 2,700.00	83.	. \$	3,735.00		\$	-	83.	\$	3,735.00
2575.501	TURF ESTABLISHMENT	Lump Sum	1.	\$	6,200.00	\$ 6,200.00	0.5	5 \$	3,100.00	0.5	\$	3,100.00	1.	\$	6,200.00
2577.601	TOE-WOOD DEBRIS	CY	875.	\$	40.00	\$ 35,000.00		\$	-	875.	\$	35,000.00	875.	\$	35,000.00
2577.601	SOD MAT	SY	526.	\$	30.00	\$ 15,780.00	263.	. \$	7,890.00	263.	\$	7,890.00	526.	\$	15,780.00
Extra / Chang	ge Order Items										!		<del>!</del>		
2105.507	COMMON EXCAVATION (EV) (P)	CY	500.	\$	4.00	\$ 2,000.00	500.	. \$	2,000.00		\$	-	500.	\$	2,000.00
Totals	fotals														
	Original Contract Amount				\$ 93,842.54										
Extra / Change Order Amount \$ 2,000.00															
						v	Vork Completed	\$	21,573.00		\$	79,485.22		\$	101,058.22

# **Change Order No. 8**



Project Name:	HDR Project No.:
Thief River Falls Westside Flood Damage Reduction Project (RLWD Project #178)	#10134290
Project Owner:	Owner's Project No.:
Red Lake Watershed District	#178
1000 Pennington Avenue South	
Thief River Falls, MN 56701	
	Date of Issuance:
	November 3, 2021
Project Contractor:	Date of Contract:
RJ Zavoral and Sons, Inc.	March 27, 2020
P.O.Box 435	
East Grand Forks, MN 56721	
	Contract Period:
	March 27, 2020 to October 15, 2020 (final completion)

It is agreed to modify the Contract referred to above as follows:

It is agree	d to modify the Contract referred to above as follows	s:	
CPR#	ITEM AND DESCRIPTION OF CHANGES	CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIME
8.0	For RLWD Project #178, the following items are to be compensated as outlined in 8.1 to 8.7 for the rock excavation during construction the of the 54" STEEL CASING PIPE – JACK INSTALLED. See Attachment A for detailed breakdown.		
8.1	Additional Labor Time: This item includes the labor time for one foreman and two laborers. The time will be compensated for 87 foreman hours at \$114.00 / Hr and 82.375 laborer hours at \$188.00 / Hr.	\$25,404.50	None
8.2	Micro Blasters: This item will be compensated for a quantity of 24 at \$85.00 Each.	\$2,040.00	None
8.3	Hotel: This item will be compensated for 5 days at \$242.00 / Day.	\$1,210.00	None
8.4	Grouting: This item includes prepping for grout by a 3 man crew and pumping of grout. Compensation will be made as a Lump Sum of \$5,460.00.	\$5,460.00	None
8.5	10% Markup: This item includes 10% markup by Prime Contractor on the Subcontractor costs.	\$2,297.05	None
8.6	Tools: Air compressor/Light/Plant/Pumps: This item includes pumping of lean grout with the use of a pump supplied by RJ Zavoral & Sons, Inc. Item will be compensated for 12 hours at \$38.00 / Hr.	\$456.00	None
8.7	Lean Grout: This item includes the lean grout material purchased by RJ Zavoral & Sons, Inc. This item will be compensated as a Lump Sum of \$4,311.79.	\$4,311.79	None
	Difference Net	\$41,179.34	None

# Summary: It is agreed to modify the Contract referred to above as follows: Contract Price prior to this Change Order \$ 6,989,849.24 October 15, 2020 Net Increase (decrease) of this Change Order \$ 41,179.34 None Revised Contract Price with all approved Change Orders \$ 7,031,028.58 October 15, 2020

and conditions of the original Contract as thou	igh included therein.	
Accepted for Contractor by:		Date:
Recommended for Approval by (HDR Engineering, Inc.)	:	Date:
Hattan P. Palage	11/3/2021	
Approved for Owner by:	Attest:	Date:
Approved: (Other - when required)		Date:
Distribution: ☐ Owner ☐ Contrac	tor □ Office	☐ Field ☐ Other

The changes included in this Change Order are to be accomplished in accordance with the terms, stipulations

Attachment A – TRF Westside Flood Damage Reduction Project – RJ Zavoral and Sons, Inc. – Change Order #8 Rock Excavation for 54" Pipe

# **Change Order #8 Rock Excavation for 54" Pipe**

# ADDITIONAL LABOR TIME

DATE	FOREMAN HOURS	LABORER HOURS (2 GUYS)	SUB TOTAL	COMMENT	ENG. TOTAL
7/12/2020	8.5	8.25	\$2,520.00	EXTRA COST - ENGINEER CONCURS	\$2,520.00
7/13/2020	10	9.25	\$2,879.00	EXTRA COST - ENGINEER CONCURS	\$2,879.00
7/17/2020	8.5	8.375	\$2,543.50	EXTRA COST - ENGINEER CONCURS	\$2,543.50
7/23/2020	10.5	5.25	\$2,184.00	EXTRA COST - ENGINEER CONCURS	\$2,184.00
7/24/2020	14	13.5	\$4,134.00	EXTRA COST - ENGINEER CONCURS	\$4,134.00
7/26/2020	9	11.75	\$3,235.00	EXTRA COST - ENGINEER CONCURS	\$3,235.00
7/27/2020	13	12.5	\$3,832.00	EXTRA COST - ENGINEER CONCURS	\$3,832.00
7/28/2020	13.5	13.5	\$4,077.00	EXTRA COST - ENGINEER CONCURS	\$4,077.00
	87	82.375	\$25,404.50		\$25,404.50

**EQUIPMENT USED DURING ROCK REMOVAL (PRESUMED SUBCONTRACTOR)** 

-	•	•			
DESCRIPTION	QTY	RATE	SUB TOTAL	COMMENT	ENG. TOTAL
EXCAVATOR HOURS	84	\$119.00	\$9,996.00	EXTRA COST - ENGINEER DOES NOT CONCUR	\$0.00
WELDED HOURS		****	4		40.00
WELDER HOURS	63	\$94.00	\$5,922.00	EXTRA COST - ENGINEER DOES NOT CONCUR	\$0.00

# **MICRO BLASTERS**

DESCRIPTION	QTY	RATE	SUB TOTAL	COMMENT	ENG. TOTAL
MICRO BLASTERS	24	\$85.00	\$2,040.00	EXTRA COST - ENGINEER CONCURS	\$2,040.00

# HOTEL

DESCRIPTION	QTY	RATE	SUB TOTAL	COMMENT	ENG. TOTAL
14 HOTEL DAYS FOR ROCK REMOVAL	14	\$242.00	\$3,388.00	EXTRA COST - ENGINEER CONCURS ON 5 DAYS	\$1,210.00

# **GROUTING**

DESCRIPTION	QTY	RATE	SUB TOTAL	COMMENT	ENG. TOTAL
PREP FOR GROUT - 3 MAN CREW	1	\$5,460.00	\$5,460.00	EXTRA COST - ENGINEER CONCURS	\$5,460.00
PUMP GROUT					

# RJZ

DESCRIPTION	QTY	RATE	SUB T	OTAL	COMMENT	ENG. TOTAL
TOOLS: AIR COMPRESSOR/LIGHT PLANT/PUMPS	143	\$	38.00 \$	5,434.00	EXTRA COST - ENGINEER CONCURS ON 12 HRS	\$456.00
LEAN GROUT			\$	4,311.79	EXTRA COST - ENGINEER CONCURS	\$4,311.79

ENGINEER SUBCONTRACTOR TOTAL	
	\$34,114.5
10% MARKUP	
	\$2,297.0
RJZ INCURRED COSTS ENGINEER CONCURS WITH	
	\$4,767.7
ENGINEER CO 8 TOTAL	
	\$41,179,3

# Red Lake Watershed District

**President**Dale M. Nelson

Vice President
Gene Tiedemann

**Treasurer** Terry Sorenson

1000 Pennington Avenue South Thief River Falls, MN 56701 218-681-5800 218-681-5839 FAX

e-mail: RLWD.redlakewatershed.org www.redlakewatershed.org Secretary LeRoy Ose

**Managers** 

Tom Anderson
Allan Page
Brian Dwight

November 2, 2021

Pete C. and Debra Carlson 15764 120<sup>th</sup> Ave. NE Thief River Falls, MN 56701

**RE:** Thief River Falls Westside Flood Damage Reduction/Grass Strip Violation

Mr. Carlson:

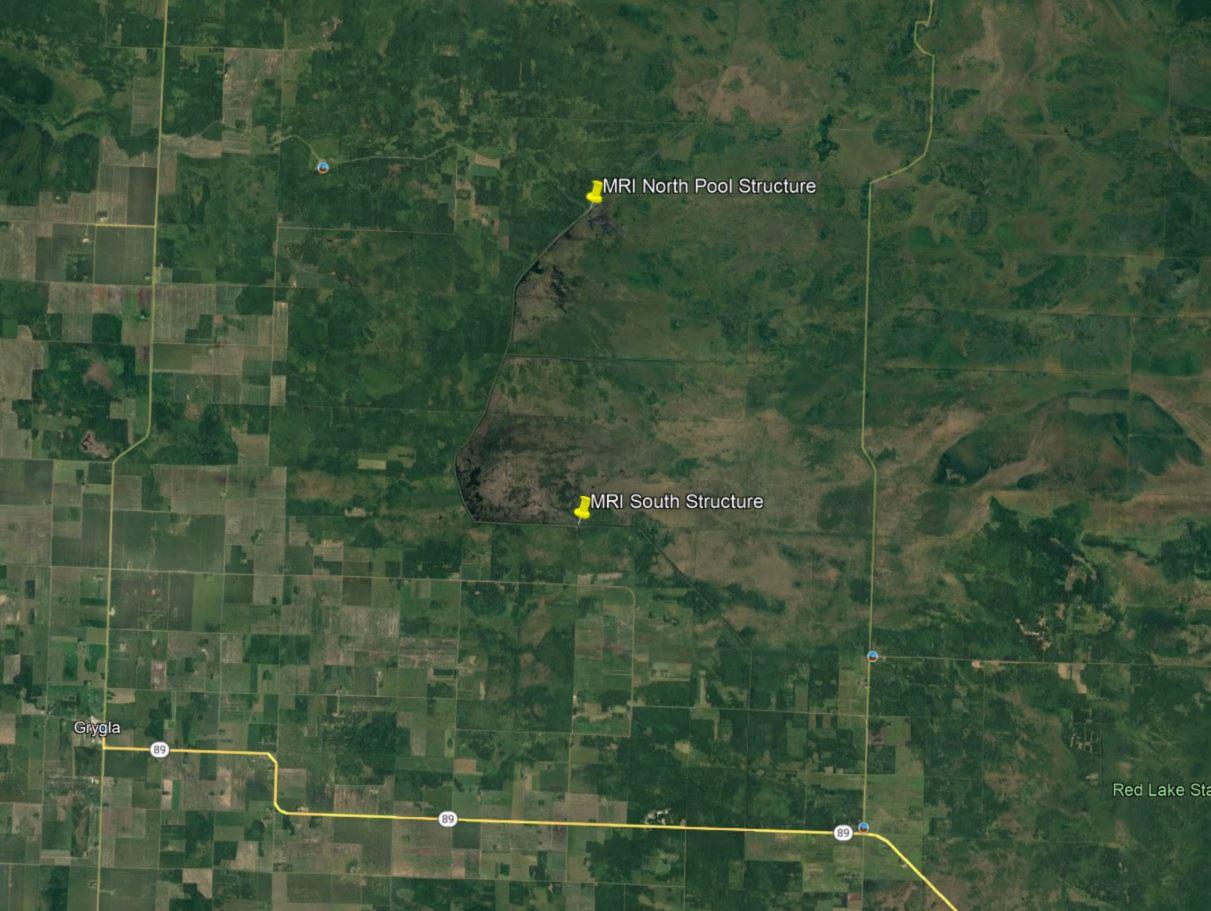
As I stated in our telephone conversation the morning of November 1, 2021, I was informed that there were upwards of 20 locations on your property along the Thief River Falls Westside Flood Damage Reduction Project where you had made drainage cuts in the spoil, thus disturbing already established vegetation along the top and side slopes of the diversion channel. The areas in question are located along the west half of Section 32, Norden Township as well as the SW1/4, Section 5, Rocksbury Township. In our conversation, it was indicated that I would review the area in question to determine what actions would be required to satisfy the Red Lake Watershed District (District). Upon my investigation of your field drain project, I confirmed the damage you created to the project, and have determined what it would take to remedy the situation. I also noticed that there may be upwards of 700 feet of grass strip that was cultivated on the permanent right of way, inside the already installed orange right of way markers. I can't be sure, but it also looks like some right of way markers may be missing. My staff will check that situation as well, and if this is the case, the markers will be replaced by the District staff.

Please find the following items that must be addressed, along with the timeline in which the work must be completed. It will be your responsibility to level and smooth all spoils above ground level along with adjacent slopes, scarify the topsoil and slope, seed, fertilize, and mulch all disturbed areas. The best way to determine if the work is completed correctly would be to visualize mowing the spoil and slopes in the future. It is also required that you contact District staff regarding when you plan to start, to assure all work is completed in a satisfactory manner, and that all work is completed by May 30, 2022. If the work is not completed by May 30, 2022, the RLWD will enter into a contract with a contractor to complete the work, and furnish you with an invoice for the work completed.

If you have any questions, please feel free to contact me on this matter.

Sincerely,

Myron Jesme Administrator









3) The structural defect requiring eventual repair is the concrete spalling, exposed rebar, lack of water stop effectiveness and eventual loss of ability to retain impoundment water at the weir elevation located at the NW extents of the weir wall at the headwall joint interface. It is anticipated that the spalled concrete will naturally separate from the remaining wall within 10 years based on freezing conditions, overtopping conditions, and continued movement. The defect will not likely compromise structural integrity of the remaining structure. The defect will likely cause slight operating condition issues as water will exceed the crest of the weir wall sooner than intended.

The likely cause of the defect is due to settlement at the tunnel/flume interface, causing slight separation of the joint at the floor and total compression of the joint at the top (see table of measurements). The total compression of the joint at the top has sheared the top of the weir wall off to the point it is ineffective and simply held on due to its bond to the reinforcing steel.

# Method of repair would be to:

- 1) Remove all unsound concrete including around reinforcing steel
- 2) Provide roughened and clean existing concrete surface
- 3) Form a new concrete wall section at this area (approximately 24"x 72"x10"), include water stop at interface with headwall, and provide waterproof membrane at the construction joint and at interface corner between the new and existing concrete.
- 4) Recommendation to request a concrete contractor to review the site, provide a cost associated with the repair, have HEI review the proposal for suitability and cost, and proceed with repair. It would appear that a repair in the next 3 to 5 years would be reasonable.

No other defects were noted as critical.

- 4) No critical findings were identified. A critical finding is a structural condition which if not immediately addressed could create a failure or excessive costs to repair.
- 5) Based on the condition of the condition of the entire structure, it is recommended that a structure inspection should occur no less than once every 4 years. An element level inspection should be conducted similar in detail and consistent with the condition ratings for the bridge inspections being performed on the Grand Marais Channel Restoration. The elements discussed in the field would be adequate to inspect.

Red Lake Watershed District September 10, 2020 Page 4 of 6

Engineer Tony Nordby, Houston Engineering, Inc., submitted a letter to Administrator Jesme regarding an extension of time for the funding from FEMA for repairs to the outlet of Ditch 10, RLWD Project No. 161. Nordby stated that due to it being late in the year and current construction prices, bidding the project would be a tight window, and recommended that we hold off on construction until next Spring. Jesme stated that he spoke with one of the landowners at the outlet and he would like to see construction next Spring. Staff member Christina Slowinski will submit an extension request for funding through FEMA. It was the consensus of the Board, to wait until the Spring of 2021 for construction, conditioned upon FEMA approval of the funding extension.

Engineer Jeff Langan, Houston Engineering, Inc., discussed the inspection he completed on the south pool of the Moose River Impoundment, RLWD Project No. 13, regarding concerns District staff had regarding structural changes. Langan stated that he did not see any further damages or concerns at this time, recommending repairs to the structure within the next 2-4 years. Langan gave a general summary of repairs to be made to restore the initial intent of the project. An inspection sheet will be completed for District staff to use while documenting the project and what to monitor on the structures.

Staff member Christina Slowinski contacted Robin Brekken, Hammond Township, regarding the replacement of culverts referred to as the Hanson Crossing, on the Burnham Creek Project, RLWD Project No. 43B. Mr. Brekken indicated that the township has filed a request with Polk County for bridge funds for the project. Hammond Township did question who will pay for the required cost share.

District staff have completed the survey and plans for property owned by Ron Salentine for modifications to the Brandt Impoundment, RLWD Project No. 60D. The plans include knocking down of a portion of the spillway, placement of a berm, and removal of trees. Engineer Nate Dalager, HDR Engineering, Inc., will review the plans for approval.

Staff member Nick Olson discussed Ditch 15, RLWD Project No. 175, as it relates to RLWD Permit No. 20-185, landowners Gary Pulkrabek and Dacian Bienek. Olson stated that the landowners wish to clean the ditch and increase the culvert sizes, which would require the culvert that goes into Ditch 15 through the spoil bank to be increased. Olson stated that the culvert that is in-place was sized for what the flow rates were at the time of the establishment of the drainage system. However, the petition will increase flows thus resulting in the existing culvert to be inadequate in size. The landowners are requesting the ditch system pay for the increase of culvert through the spoil bank. Motion by Ose, seconded by Torgerson, to approve allocating funds from Ditch 16, RLWD Project No. 175, for replacement of the culvert through spoil and to size in accordance to petition request. Motion by Ose, seconded by Dwight, to approve RLWD Permit No. 20-185, Gary Pulkrabek/Dacian Bienek, Euclid Township, Polk County, with conditions stated on the permit. Motion carried.

Motion by Sorenson, seconded by Dwight, to table RLWD Permit No. 20-159 and No. 20-160, Gary Pulkrabek and Dacian Bienek, Euclid Township Polk County. Motion carried.

# Trimble TSC7

# CONTROLLER



# **Trimble TSC7** CONTROLLER

VIII	PHYSICAL SPECIFICATIONS					
Size	30 x 20.9 x 7.1 cm (11.8 x 8.2 x 2.8 ")					
Weight	1,42 kg (3,12 lb)					
Housing	Glass-fibre reinforced resin with integrated drop bumpers					

ENVIRONMENTAL SPECIFICATIONS (meets or exceeds)				
Operating temperature	-20 °C to 60 °C (-22 °F to 140 °F) MIL-STD-810G 501.5 Procedures II (operation)			
Storage temperature	-40 °C to 70 °C (-40 °F to 158 °F) MIL-STD-810G 501.5 Procedures I (storage)			
Humidity	90 % RH temp cycle -20 °C/60 °C (-4 °F/140 °F) MIL-STD-810G, Method 507.5, Procedure II			
Sand & dust	IP6x: 8 hours of operation with blowing talcum powder (IEC-529)			
Water	IPx8: Immersion, up to 1 m (3.2 ft) depth for 2 hours			
Drop	26 drops at room temperature from 1.22 m (4 ft) onto plywood over concrete MIL-STD-810G, Method 516.6, Procedure IV			

the S	SECURITY	
	TPM (Trusted Platform Module)	

CONFIGURATIONS				
EMPOWER module support	2 x module bays			
Languages supported at first boot:	Chinese (Simplified), English (US), French, German, Italian, Japanese, Korean, Portuguese (Brazilian), Spanish (Castilian region and Mexico)			

	CERTIFICATIONS
Among others	FCC, NRTL, ICES, IC, NRTL, CE, CB, RCM, CCC
Countries	Certified in countries: USA, Canada, EU, Australia/ New Zealand, South Africa, India, Malaysia, Tunisia, UAE, Thailand, Taiwan, Russia
Environmental	EU RoHS, China RoHS, REACH, WEEE

Specifications subject to change without notice

EL EL	ECTRICAL SPECIFICATIONS
Processor	Intel Apollo Lake - N4200, 64-bit quad-core
Memory	8 GB RAM, LPDDR4
Storage	64 GB eMMC
Expansion	via microSDXC card up to 2 TB
Batteries	2 x 3100 mAh (22.53 Wh) min, capacity/3150 mAh (22.90 Wh) nominal capacity; removable, hot swappable, charge LED indicator
Battery life	Medium usage approx, 5 hours, can range 4–7 hours (depending on display settings, connectivity data processing, ambient temperature, etc.)
Charging time	Full-charge 3,5 hours, fast-charge (80 %) 1 ¾ hour
Power input	19V/5A charging
Notification LED	Charging and power status
Display	7-inch, 1280 x 800 landscape, 16:10, multi-point capacitive, 650+ nits sunlight readable
Keyboard	QWERTY or ABCD, with backlight, numeric key block, Fn keys (6 physical + 6 2nd function Fn keys)
Audio	Speaker and dual digital microphone array with noise reduction
External speaker/ microphone	3.5 mm mini-jack or wireless headset
1/0	User replaceable module. Standard: Charger/DC power-in, USB 3.1 Gen 1 type A host, serial RS232 DB-9
USB	USB 3.1 Gen 1
WWAN	Worldwide LTE in regions where it is available, and compatible with 3G networks AT&T and Verizon certified. MicroSIM card
Wi-Fi	802.11 a/b/g/n, 2,4 GHz radio band
Bluetooth®	BT 2.1 + EDR, BT 4.1
Camera	Rear carnera 8 MP autofocus with flash Front carnera 2 MP fixed-focus
GNSS	Integrated GNSS
Sensors	3-axis accelerometer, magnetic sensor, ambient light sensor, proximity sensor















Contact your local Trimble Authorized Distribution Partner for more information

NORTH AMERICA Trimble Inc. 10368 Westmoor Drive Westminster CO 80021 **EUROPE** Trimble Germany GmbH Am Prime Parc 11 65479 Raunheim **GERMANY** 

ASIA-PACIFIC Trimble Navigation Singapore PTE Limited 3 HarbourFront Place #13-02 HarbourFront Tower Two Singapore 099254 SINGAPORE

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# Trimble R12i

# **GNSS SYSTEM**

# **KEY FEATURES**

- ► Trimble Inertial Platform" (TIP) technology. Calibration-free and magnetically immune IMU-based tilt compensation for topo measurements and stakeout.
- ► Trimble ProPoint™ GNSS positioning engine. Engineered for improved accuracy and productivity in challenging GNSS conditions.
- 672-channel solution with Trimble 360 satellite tracking technology
- CenterPoint RTX correction service delivers fast, RTK level accuracy worldwide via satellite/IP
- Trimble xFill correction outage technology
- Optimized for Trimble Access\* field software
- Android and iOS platform support
- Cellular, Bluetooth\*, Wi-Fi data connectivity
- Military-spec rugged design and IP-67 rating
- Ergonomic form factor
- All day battery with built-in status indicator
- 6 GB internal memory
- Supports augmented reality capabilities through Trimble SiteVision<sup>16</sup>

Learn more: geospatial.trimble.com/R12i







AR Ready



GNSS MEASUREMENTS		
and weadone went	Constellation agnostic flexible signal tracking improved po	ositioning in challenging environments <sup>1</sup> and inertial measurement
	integration with Trimble ProPoint GNSS technology. Increased measurement and stakeout productivity and tra- tilt compensation	ceability with Trimble TIP™ technology IMU-based
	Advanced Trimble Custom Survey GNSS chips with 672 ch	
	Reduced downtime due to loss of radio signal or cellular co	
	Signals tracked simultaneously	GPS: L1C, L1C/A, L2C, L2E, L5 GLONASS: L1C/A, L1P, L2C/A, L2P, L3 SBAS (WAAS, EGNOS, GAGAN, MSAS): L1C/A, L5 Galileo: E1, E5A, E5B, E5 AltBOC, E6 <sup>2</sup> BelDou: B1, B1C, B2, B2A, B2B, B3 QZSS: L1C/A, L1S, L1C, L2C, L5, L6 NavIC (IRNSS): L5 L-band: Trimble RTX <sup>™</sup> Corrections
	Iridium filtering above 1616 MHz allows antenna to be used	up to 20 m away from iridium transmitter
	Japanese LTE filtering below 1510 MHz allows antenna to b	e used up to 100 m away from Japanese LTE cell tower
	Digital Signal Processor (DSP) techniques to detect and rec	cover from spoofed GNSS signals
	Advanced Receiver Autonomous Integrity Monitoring (RAII to improve position quality Improved protection from erroneous ephemeris data	M) algorithm to detect and reject problem satellite measurement
	Positioning Rates	1 Hz, 2 Hz, 5 Hz, 10 Hz, and 20 Hz
POSITIONING PERFORMAN		, a straight of the straight o
	VOL.	
STATIC GNSS SURVEYING		
High-Precision Static	Horizontal	2 mans + 0.1 mans DMC
		3 mm + 0.1 ppm RMS
	Vertical	3.5 mm + 0.4 ppm RMS
Static and Fast Static	THE PARTY OF THE PARTY OF THE PARTY OF	
	Horizontal	3 mm + 0.5 ppm RMS
	Vertical	5 mm + 0.5 ppm RMS
REALTIME KINEMATIC SURVE	/ING	
Single Baseline <30 km		
	Horizontal	8 mm + 1 ppm RMS
	Vertical	15 mm + 1 ppm RMS
Network RTK⁴		
	Horizontal	8 mm + 0.5 ppm RMS
	Vertical	15 mm + 0,5 ppm RMS
RTK start-up time for		2 to 8 seconds
specified precisions <sup>5</sup>	(TIP) TEQUINOLOGY	
TRIMBLE INERTIAL PLATFORM	(TIP) TECHNOLOGY	
TIP Compensated Surveying <sup>6</sup>		
	Horizontal	RTK + 5 mm + 0.4 mm/° tilt (up to 30°) RMS
	Horizontal	RTX + 5 mm + 0.4 mm/° tilt (up to 30°) RMS
MU Integrity Monitor	Bias monitoring	Temperature, age and shock
TRIMBLE RTX CORRECTION SE	RVICES	
CenterPoint RTX7		
	Horizontal	2 cm RMS
	Vertical	5 cm RMS
	RTX convergence time for specified precisions in Trimble RTX Fast regions  RTX convergence time for specified precisions in non RTX	< 1 min < 15 min
	Fast regions	< 15 Hilli
	RTX QuickStart convergence time for specified precisions	<1min
TRIMBLE xFILL8		
	Horizontal	RTK <sup>9</sup> + 10 mm/minute RMS
	Vertical	RTK9 + 20 mm/minute RMS
TRIMBLE xFILL PREMIUM <sup>8</sup>		
TRIMBLE xFILL PREMIUM <sup>6</sup>	Horizontal	3 cm RMS
TRIMBLE xFILL PREMIUM <sup>8</sup>	Horizontal Vertical	3 cm RMS 7 cm RMS
	Vertical	
	Vertical	
TRIMBLE xFILL PREMIUM <sup>8</sup> CODE DIFFERENTIAL GNSS PO	Vertical SITIONING	7 cm RMS

# Trimble R12i GNSS SYSTEM

HARDWARE		TOP I STATE THE SHAPE THE
PHYSICAL		
Dimensions (W×H)	11,9 cm x 13,6 cm (4,6 in x 5.4 in)	
Weight	1.12 kg (2.49 lb) with internal battery, internal radio 3.95 kg (8.71 lb) items above plus range pole, Trimb	
Temperature <sup>11</sup>	disens (e./ 115) items deete plas range pole, irinis	10 7007 CONTROLL & CHARLES
	Operating	-40 °C to +65 °C (-40 °F to +149 °F)
	Storage	-40 °C to +75 °C (-40 °F to +167 °F)
Humidity		100%, condensing
Ingress protection		IP67 dustproof, protected from temporary immersion to depth of 1 m (3.28 ft)
Shock and vibration (Tested and	meets the following environmental standards)	01111(3,201t)
	Shock	Non-operating: Designed to survive a 2 m (6.6 ft) pole drop onto concrete. Operating: to 40 G, 10 msec, sawtooth
	Vibration	MIL-STD-810F, FIG,514.5C-1
ELECTRICAL		
	Power 11 to 24 V DC external power input with over-	voltage protection on Port 1 and Port 2 (7-pin Lemo)
	Rechargeable, removable 7.4 V, 3,7 Ah Lithium-ion s	mart battery with LED status indicators
	Power consumption is 4,2 W in RTK rover mode with	h ìnternal radio <sup>12</sup>
Operating times on internal batt	rery <sup>is</sup>	
	450 MHz receive only option	6.5 hours
	450 MHz receive/transmit option (0.5 W)	6.0 hours
	450 MHz receive/transmit option (2.0 W)	5.5 hours
	Cellular receive option	6.5 hours
COMMUNICATIONS AN	D DATA STORAGE	
Serial	3-wire serial (7-pin Lemo)	
USB v2.0	Supports data download and high speed communic	cations
Radio modem		er/transmitter with frequency range of 403 MHz to 473 MHz, support of 2 W
	Range	3–5 km typical / 10 km optimal⁴
Cellular <sup>15</sup>	Integrated, 3.5 G modern, HSDPA 7.2 Mbps (downlo	oad), GPRS multi-slot class 12, EDGE multi-slot class 12, Penta-band 00/2100 MHz, Quad-band EGSM 850/900/1800/1900 MHz, GSM CSD
Bluetooth	Version 4.1 <sup>16</sup>	
Wi-Fi	802.11 b.g. access point and client mode, WPA/WPA	A2/WEP64/WEP128 encryption
I/O ports	Serial, USB, TCP/IP, IBSS/NTRIP, Bluetooth	The control and the control points
Data storage	6 GB internal memory	
Data format	CMR+, CMRx, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTC	M 3.1. RTCM 3.2 input and outout
	24 NMEA outputs, GSOF, RT17 and RT27 outputs, 1	
WEBUI	STATE OF THE PARTY	CHEROCOLUMN DINAFFER DELL'AND
	Offers simple configuration, operation, status, and o	data transfer
	Accessible via Wi-Fi, Serial, USB, and Bluetooth	
SUPPORTED CONTROLLER		
	Trimble TSC7, Trimble T10, Trimble T7, Android and it	OS devices running supported apps
	Trimble Access 2020.10 or later	3 ,1
AUGMENTED REALITY	The Control of the Co	
	Supports outdoor augmented reality capabilities th	rough Trimble SiteVision running on the Trimble TSC7 controller
CERTIFICATIONS	The same of the sa	AND MARKET STREET, STREET
PERTITIONIONS		

FCC Part 15 (Class B device), 24, 32; CE Mark; RCM; PTCRB; BT SIG



# 

# Trimble R12i GNSS SYSTEM







- 1 Challenging GNSS environments are locations where the receiver has sufficient satellite availability to achieve

- 1 Challenging GNSS environments are locations where the receiver has sufficient satellite availability to achieve minimum accuracy requirements, but where the signal may be partly obstructed by and/or reflected off of trees, buildings, and other objects. Actual results may vary based on user's geographic location and atmospheric activity, scintillation levels, GNSS constellation health and availability, and level of multipath and signal occlusion.

  2 The current capability in the receivers is based on publicly available information. As such, Trimble cannot guarantee that these receivers will be fully compatible with a future generation of Gallieo satellites or signals.

  3 Precision and reliability may be subject to anomalies due to multipath, obstructions, satellite geometry, and atmospheric conditions. The specifications stated recommend the use of stable mounts in an open sky view, EMI and multipath clean environment, optimal GNSS constellation configurations, along with the use of survey practices that are generally accepted for performing the highest-order surveys for the applicable application inclined occupations times appropriate for baseline length. Baselines longer than 30 km require precise ephemeris and occupations up to 24 hours may be required to achieve the high precision static specification.

  4 Network RTK PPM values are referenced to the closest physical base station.

  5 May be affected by atmospheric conditions, signal multipath, obstructions and satellite geometry. Initialization reliability is continuously monitored to ensure highest quality.

  7 Til references the overall positioning error estimate at the tip of the surveying pole throughout the tilt compensation range. RTK refers to the estimated horizontal precision of the underlying GNSS position, which is dependent on factors that affect GNSS solution quality. The 5 mn constant error component accounts for residual misalignment between the vertical axes of the receiver and the built-in lenetal Messaurement Unit (IMU) after factory calib
- vary based on type and capability of receiver and antenna, user's geographic location and atmospheric activity, scintillation levels, GNSS constellation health and availability and level of multipath including obstructions such as
- scintillation levels, GNSS constellation health and availability and level of multipath including obstructions such as large trees and buildings.

  8 Accuracies are dependent on GNSS satellite availability xfill positioning without an xfill Premium subscription ends after 5 minutes of radio downtime. xfill Premium will continue beyond 5 minutes providing the solution has converged, with typical precisions not exceeding 3 cm horizontal, 7 cm vertical. xfill is not available in all regions, check with your local sales representative for more information.

  9 RTK refers to the last reported precision before the correction source was lost and xfill started.

  10 Depends on SBAS system performance.

  11 Receiver will operate normally to ~40 °C, internal batteries are rated from ~20 °C to +60 °C (ambient +50 °C).

  12 Tracking GPS, GLONASS and SBAS satellites.

  13 Varies with temperature and wireless data rate. When using a receiver and internal radio in the transmit mode, it is recommended that an external 6 Ah or higher battery is used.

  14 Varies with terrain and operating conditions.

  15 Due to local regulations, the integrated cellular modern cannot be enabled in China, Taiwan, or Brazil, A Trimble controller integrated cellular modern cannot be used to obtain GNSS corrections via an IP (Internet Prolocol) connection.

- (Internet Protocol) connection 16 Bluetooth type approvals are country specific

Specifications subject to change without notice











**NORTH AMERICA** Trimble Inc. 10368 Westmoor Dr Westminster CO 80021 USA

EUROPE Trimble Germany GmbH Am Prime Parc 11 65479 Raunheim **GERMANY** 

ASIA-PACIFIC

Trimble Navigation Singapore PTE Limited 3 HarbourFront Place #13-02 HarbourFront Tower Two Singapore 099254 SINGAPORE

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Frontier Precision, Inc. 446 Great Oak Drive Waite Park, MN 56387

320.654.6511 www.frontierprecision.com Quote

Date: Nov 9, 2021 09:04 AM

Quote Number: 56007

Valid Until: Dec 2, 2021

Quotation by: Weston Schneider

For questions, contact westons@frontierprecision.com

SHIP TO:

Red Lake Watershed District

Tony Olson 1000 Pennington Avenue South Thief River Falls, MN 56701 United States tony.olson@redlakewatershed.org 218-681-5800

# BILL TO: Red Lake Watershed District

Tony Olson 1000 Pennington Avenue South Thief River Falls, MN 56701 United States tony.olson@redlakewatershed.org 218-681-5800

Product Details	Qty	Price	Tota
L. R12I-101-60-01 Trimble R12i, Model 60, ROW	1	\$ 26,455.50	\$ 26,455.5
Trimble R12i, Model 60, ROW			
2. R12I-CFG-001-40 Trimble R12i Configuration Level	1	\$ 0.00	\$ 0.0
Trimble R12i Configuration Level - R12i Base and Rover Mode - Part of R12i Bundle			
3. 101070-00-01 Trimble dual battery charger with power cord	1	\$ 567.00	\$ 567.0
Trimble Geospatial Accessory - Dual Battery Charger with Power Supply and Power Cord (North America)			
. 89840-00 Trimble R10/R12 Accessory - Rechargeable Battery	2	\$ 183.60	\$ 367.2
Trimble R10 Accessory - Rechargeable Battery (7.4V, 3700 mAh, 27.3 Wh)			
i. TSC7-1-1111-00 Trimble TSC7-QWERTY keypad	1	\$ 4,536.00	\$ 4,536.0
Trimble TSC7 controller - QWERTY keypad, USB/Serial boot, Worldwide region, Standalone			
i. EWLS-TA-LOYAL-STOCK Trim Access RNST lapsed > 12m	1	\$ 1,062.00	\$ 1,062.0
Loyalty Program Trimble Access Annual SW RNST lapsed > 12m Yuma 2 S/N: T71SY-1546-013393			
. 121354-01-1 Trimble Accessory - Carry Case Shoulder Bag	1	\$ 74.70	\$ 74.7
Trimble Accessory - Carry Case Shoulder Bag			
3. 121349-01-1 TSC7 Pole Mount	1	\$ 208.80	\$ 208.8
Trimble TSC7 Accessory - Pole Mount			
. 121345-01-1 Trimble Accessory - Desktop Hub	1	\$ 207.90	\$ 207.9
Trimble Accessory - Desktop Hub			
0. 121358-01-1 External Battery Charger + Batt 2-pack	1	\$ 441.00	\$ 441.0
Trimble Accessory - External Battery Charger w/ Int. Cord, Battery 2-pack			
1. FPI-TABLET Trade-in Discount	1	\$ -200.00	\$ -200.0
Trade in blank Yuma 2 Tablet S/N: T71SY-1546-013393 - Includes Desktop Charging Hub, Pole Bracket			
2. FPI-R8-3 Trade-in Discount	1	\$ -1,600.00	\$ -1,600.0
Trade in R8-3 S/N: 4947406471 (Rover) - Includes Receiver, Case, Dual Battery Charger w/ Power Supply, 2 Li-lon Batteries, Programming Cable			
3. FPI-TRAINING-HOURLY Hourly training rate	2	\$ 225.00	\$ 450.0
In-person training- Hourly Rate. Will be at HDR office at the same time as their training. HDR needs to give the approval ahead of time for the trainings to be combined.			
		Sub Total: Tax: Shipping:	\$ 32,570.1 \$ 0.0 \$ 0.0 \$ 32,570.1

Special Notes:

MN State Contract #171661

# 2021 GENERAL FUND BUDGET

# as of October 31, 2021

(unaudited)

	2021 BUDGET	2021 Exp	(over) under	3rd Qtr Exp.
		TO 10-31-21		
Manager's fees, salaries	40,000.00	19,050.00	20,950.00	30,000.00
Board of Manager's expense	24,200.00	7,131.90	17,068.10	18,150.00
Staff salaries	558,000.00	364,762.58	193,237.42	418,500.00
Payroll taxes	42,687.00	29,750.44	12,936.56	32,015.25
Employee benefits	85,000.00	56,494.64	28,505.36	63,750.00
Travel and meetings(inc. mileage & exp.	5,000.00	1,482.61	3,517.39	3,750.00
Audit	9,450.00	9,450.00	0.00	7,087.50
Legal	16,000.00	5,314.00	10,686.00	12,000.00
Office supplies	20,000.00	12,101.21	7,898.79	15,000.00
Office equipment	30,000.00	0.00	30,000.00	22,500.00
Appraiser/Viewer Expense	2,000.00	0.00	2,000.00	1,500.00
Professional services	20,000.00	17,791.50	2,208.50	15,000.00
Dues and subscriptions	10,000.00	9,725.00	275.00	7,500.00
Insurance and bonds	30,000.00	42,270.00	(12,270.00)	22,500.00 ***
Repairs and maintenance-Building	15,000.00	9,099.37	5,900.63	11,250.00
Utilities	12,000.00	7,462.91	4,537.09	9,000.00
Advertising and publications	4,000.00	9,858.74	(5,858.74)	3,000.00 *
Telephone	13,000.00	7,555.76	5,444.24	9,750.00
Vehicle expense and maintenance	15,000.00	13,105.17	1,894.83	11,250.00
Engineering supplies	3,000.00	3,603.51	(603.51)	2,250.00
Engineering equipment	40,000.00	7,098.44	32,901.56	30,000.00
Interest	0.00	0.00	0.00	0.00
TOTAL	994,337.00	633,107.78	361,229.22	745,752.75
Less: Overhead	837,000.00	572,156.56	(264,843.44)	627,750.00
Less: Miscellaneous revenue	7,000.00	8,186.42	1,186.42	<u>5,250.00</u> **
General Fund Budget	150,337.00	52,764.80	97,572.20	112,752.75

		TO 10-31-21
January 1, 2021 Beg. Balance	212,187.05	212,187.05
County levies revenue	0.00	<u>75,168.51</u>
Gross balance with revenue		287,355.56
Less net expenses		(52,764.80)
Subtotal- General Fund w/o interest		234,590.76

Plus interest earned-if allocated to GF 100%	15,500.05
General Fund Balance 10-31-21	250,090.81

<sup>\*</sup> Ads for engineering and accounting officer staff positions

<sup>\*\*</sup> Sale of excess property

\*\*\* Increase in Liability Insurance



Status Report: Tabled

# **Applicant Information**

Name	Organization	Address	Email	Phone Number(s)
Daniel Caillier		18677 240th Street SW Crookston, MN 56716		tel:218-289-0451 mobile: fax:

# **General Information**

(1) The proposed project is a:

# Surface Drainage (New Ditch or Improvement)

- (2) Legal Description
- (3) County: Red Lake Township: Louisville Range: 45 Section: 29 1/4: SW1/4
- (4) Describe in detail the work to be performed. Clean ditch.
- (5) Why is this work necessary? Explain water related issue/problem being solved. Ditch is plugged.

# **Status**

Status	Notes	Date
Tabled		Nov. 8, 2021
Received		Sept. 16, 2021

# **Conditions**

I recommend this permit be "Tabled" to provide time for the applicant to get an adjacent landowner's signature on the permit. N.J.O.

# APPLICATION FOR PERMIT RED LAKE WATERSHED DISTRICT

1000 Pennington Avenue South, Thief River Falls, MN 56701 RLWD@redlakewatershed.org 218-681-5800

TO THE BOARD OF MANA	AGERS:		
Landowner Name:		Telephone Nu	mber:
Daniel Cail	lier	218-28	9-0451
Address (Street, RFD, Box 1	No., City, State, Zip):		
18677 2401	st sw		
Project Location: Government Lot	Quarter Sec	tion(s) <b>8</b> W/ <b>8</b> E	Section(s) Z9
Township (Name & #) 40	uis ville 152N F	Range # 45 W C	ounty Red Lake
Type of Work Proposed:   X  Excavate   Fill   Drain   Construct		[ Ditch ['] Culvert (Size) [] Bridge (Size) [] Dam	[ ] Dike [ ] Erosion Control [ ] Tile [ ] Other
Be sure to attach all necessary	reports, maps, drawings	s, photos, other data, etc., to su	apport permit application.
Description of work to be do  Clen Mark  Estimated drainage area: acr	Orteh Bottom	ilo(a)	
Work is necessary because:			
plans, and other information s	ubmitted with this applied to the best of my kn	cation. The information submowledge. Obtaining a permi	we and have attached all supporting maps litted and statements made concerning this t from the Managers does not relieve the permits required by law.
Signature of landowner.	Willed	I	Date:
	DEG	FIVEN	For Office Use Only P.A. No.  21-151





Status Report: **Approved** 

# **Applicant Information**

Name	Organization	Address	Email	Phone Number(s)
Earl Pederson		3077 County Highway 42 Bejou , MN 56516		tel:218-790-4106 mobile: fax:

# General Information

(1) The proposed project is a:

### Culvert Installation / Removal / Modification

- (2) Legal Description
- (3) County: Red Lake Township: Terrebonne Range: 43 Section: 28 1/4: SE1/4
- (4) Describe in detail the work to be performed, Install 18" culvert.
- (5) Why is this work necessary? Explain water related issue/problem being solved. No entrance to field.

# **Status**

Status	Notes	Date
Approved		None
Received		Oct. 21, 2021

# **Conditions**

Red Lake Watershed District (RLWD) approval to install an 18" diameter field entrance culvert, as per approval of Terrebonne Township; proposed work is within township road right-of-way. Consideration should be had regarding installation of rock riprap with filter fabric at the outlet end of the permitted culvert to prevent erosion. Applicant shall ensure that all disturbed areas are seeded. Applicant is responsible for utility locates by calling Gopher 1. (1-800-252-1166) N.J.O.



Status Report: Approved

# **Applicant Information**

Name	Organization	Address	Email	Phone Number(s)
Earl Pederson		3077 County Hwy 42 Bejou, MN 56516		tel:218-790-4106 mobile: fax:

### **General Information**

(1) The proposed project is a:

### Culvert Installation / Removal / Modification

- (2) Legal Description
- (3) County: Red Lake Township: Terrebonne Range: 43 Section: 28 1/4: SW1/4
- (4) Describe in detail the work to be performed. Removed damaged plastic culvert and install 24" steel culvert.
- (5) Why is this work necessary? Explain water related issue/problem being solved. Existing plastic culvert is damaged.

# **Status**

Status	Notes	Date
Approved		Nov. 8, 2021
Received		Oct. 21, 2021

# **Conditions**

Red Lake Watershed District (RLWD) approval to remove a 16" plastic culvert and replace it with an 18" diameter culvert, as per approval of Red Lake County Highway Department; proposed work is within CR 116 right-of-way. Consideration should be had regarding installation of rock riprap with filter fabric at the outlet end of the permitted culvert to prevent erosion. Applicant shall ensure that all disturbed areas are seeded. Applicant is responsible for utility locates by calling Gopher 1. (1-800-252-1166) N.J.O.



Status Report: **Approved** 

# **Applicant Information**

Name	Organization	Address	Email	Phone Number(s)
LeRoy Stumpf	9	12501 240th Avenue SE Plummer, MN 56748		tel: mobile: <b>218-689-2180</b> fax:

### **General Information**

(1) The proposed project is a:

Surface Drainage (New Ditch or Improvement)

- (2) Legal Description
- (3) County: Pennington Township: Wyandotte Range: 42 Section: 13 1/4: East 1/2
- (4) Describe in detail the work to be performed. Clean west and north road ditch
- (5) Why is this work necessary? Explain water related issue/problem being solved. Poor drainage.

### **Status**

Status	Notes	Date
Approved		Nov. 9, 2021
Received		Oct. 28, 2021

# Conditions

Red Lake Watershed District (RLWD) approval to clean a west township road ditch bottom, as per approval from Wyandotte township; proposed work is within township right-of-way. All excavation shall be consistent with the existing road and ditch slopes, there shall be no vertical excavation faces. Existing flows shall not be changed or diverted. Applicant shall ensure that all disturbed areas are seeded. Applicant is responsible for utility locates by calling Gopher 1. (1-800-252-1166) N.J.O.



#### Permit # 21-176

Status Report: Approved

#### **Applicant Information**

Name	Organization	Address	Email	Phone Number(s)
Dennis E. Haglund		17500 160th SW Red Lake Falls, MN 56750		tel: <b>218-253-2394</b> mobile: fax:

#### **General Information**

(1) The proposed project is a:

#### **Culvert Installation / Removal / Modification**

- (2) Legal Description
- (3) County: Red Lake Township: Wylie Range: 45 Section: 33 1/4: SW1/4
- (4) Describe in detail the work to be performed. Excavate and remove existing culvert. Install new culvert, level and slope.
- (5) Why is this work necessary? Explain water related issue/problem being solved. Current field crossing is too small for modern farm equipment.

#### **Status**

Status	Notes	Date
Approved		Nov. 8, 2021
Received		Nov. 2, 2021

#### Conditions

Red Lake Watershed District (RLWD) approval to remove a 1.9' rise CMP-Arch pipe and replace it with an 18" diameter culvert, as per approval of Wylie Township; proposed work is within township road right-of-way. Consideration should be had regarding installation of rock riprap with filter fabric at the outlet end of the permitted culvert to prevent erosion. Applicant shall ensure that all disturbed areas are seeded. Applicant is responsible for utility locates by calling Gopher 1. (1-800-252-1166) N.J.O.

NOTE: This permit does not relieve the applicant of any requirements for other permits which may be necessary from Township, County, State, or Federal Government Agencies.



#### Permit # 21-177

Status Report: **Approved** 

#### **Applicant Information**

Name	Organization	Address	Email	Phone Number(s)
Dylan Niswander	l	26958 295th Street SE McIntosh, MN 56556		tel:712-223-1307 mobile: fax:

#### **General Information**

(1) The proposed project is a:

Culvert Installation / Removal / Modification

- (2) Legal Description
- (3) County: Polk Township: Lessor Range: 41 Section: 9 1/4:
- (4) Describe in detail the work to be performed. Install 18"x40' culvert crossing to access new shop being built.
- (5) Why is this work necessary? Explain water related issue/problem being solved. Original crossing is too tight for bigger trucks.

#### **Status**

Status	Notes	Date
Approved		Nov. 8, 2021
Received		Nov. 3, 2021

#### **Conditions**

Red Lake Watershed District (RLWD) approval to an 18" diameter driveway culvert, as per approval of Lessor Township; proposed work is within township road right-of-way. Consideration should be had regarding installation of rock riprap with filter fabric at the outlet end of the permitted culvert to prevent erosion. Applicant shall ensure that all disturbed areas are seeded. Applicant is responsible for utility locates by calling Gopher 1. (1-800-252-1166) N.J.O.

NOTE: This permit does not relieve the applicant of any requirements for other permits which may be necessary from Township, County, State, or Federal Government Agencies.



#### Permit # 21-178

Status Report: **Approved** 

#### Applicant Information

Name	Organization	Address	Email	Phone Number(s)
Earl Pederson		3077 County Hwy 42 Bejou, MN 56515		tel: <b>218-790-4106</b> mobile: fax:

#### **General Information**

(1) The proposed project is a:

#### No work type selected.

- (2) Legal Description
- (3) County: None Township: None Range: None Section: None 1/4:
- (4) Describe in detail the work to be performed.
- (5) Why is this work necessary? Explain water related issue/problem being solved.

#### **Status**

Status	Notes	Date
Approved		Nov. 8, 2021
Received		Nov. 8, 2021

#### **Conditions**

Red Lake Watershed District (RLWD) approval to clean a township and county road ditch bottom, see map. Applicant shall seek approval from Lambert Township and the Red Lake County Highway Department prior to the start of work. Consideration shall be had regarding the back slope of the proposed cleaning area. It is advised that the applicant slope the back slope to a 4:1 (H:V) slope to protect against erosion. Applicant shall ensure that all disturbed areas are seeded in a timely manner. Applicant is responsible for utility locates by calling Gopher 1. (1-800-252-1166) N.J.O.

NOTE: This permit does not relieve the applicant of any requirements for other permits which may be necessary from Township, County, State, or Federal Government Agencies.

#### **Accounting Software**

#### **Quick Books Online**

Item	Monthly	One Time Fee
Quick Books Online	\$126.00 first year	
	\$180.00 after first year	
Quick Books Online Payroll	\$52.00 first year	
	\$75.00 after first year	
Quick Books Online Payroll (15 users x	\$102.00	
\$6.80 assume Board members included)		
Quick Books Time	\$20.00	
Quick Books Time (8 users monthly x	\$64.00	
\$8.00)		
*Brady Martz-Import/setup		\$6,000 - \$7,500
	\$364.00 monthly first year	\$6,000 - \$7,500
Total	\$441.00 monthly after first year	

<sup>\*</sup>Additional fee for training, quarterly and year end reporting \$150-\$175 per hour (as needed).

## BradyMartz

## PROPOSAL FOR PROFESSIONAL SERVICES

**November 8, 2021** 

**Red Lake Watershed District** 

## **Brady**Martz

#### **Why Brady Martz**

We offer extensive experience. Brady Martz has been providing accounting and assurance services to individuals and businesses in our community for more than 90 years. Our professionals are interested in your organization, care about its performance, and are dedicated to helping you achieve your goals. Our team members offer a wide range of knowledge, business acumen, and industry specific information. We are able to reach beyond a narrow technical approach to analyze and advise your entity on the many elements of growing a successful organization.

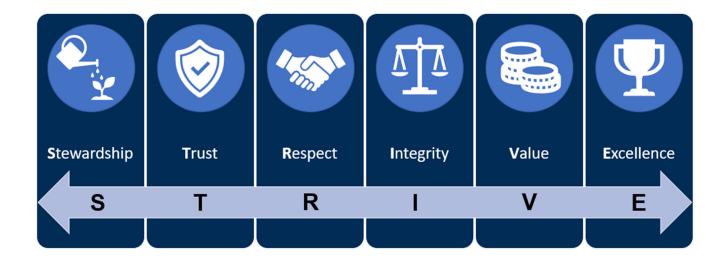
**Our resources are vast.** Brady Martz is a member of the RSM US Alliance, which gives our firm access to the entire array of resources of RSM. RSM is a powerful network of audit, tax, and consulting experts with offices all over the world. RSM US Alliance firms share insights and resources. RSM US Alliance is a premier affiliation of independent accounting and consulting firms in the United States, with more than 75 members in 38 states, the Cayman Islands and Puerto Rico. This arrangement provides Minnesota Rural Water Association the convenience and closeness of a local firm backed by the power of the worldwide alliance.

**Communication**. We are committed to engaging in communication with your key management team members, consistently offering valuable feedback and proactive input to help you and your business.

**Reputation**. Brady Martz has a proven, long-standing history North Dakota and Minnesota. We have been named an *Accounting Today* Top 100 Firm, a *Forbes* Top Recommended Tax and Accounting Firm, and are #103 on *Inside Public Accounting's* Top 200 Firms.

#### **Core Values**

To be an advisor that our clients depend on, we integrate our core values into every engagement we complete.





#### **Engagement Team**

Based on our knowledge of **Red Lake Watershed District** we have selected your engagement team for the best possible fit.

ROLE	YEARS OF EXPERIENCE
Relationship Manager	10
Team Manager	6

#### **Staff Turnover and Minimization**

At Brady Martz, we have an excellent record of retaining and growing our people. Our firm understands our clients' need for continuity and embrace a culture where team members are valued and recognized. As a result, our firm has a low level of staff turnover compared to the overall accounting profession. We aim to keep key management team members consistent in serving each client.

#### **Proposed Services**

Your investment estimate is based on anticipated cooperation from your personnel and the assumption that unexpected circumstances will not be encountered during the engagement. If significant additional time is necessary, we will discuss it with you and arrive at a new fee estimate before we incur the additional costs. The fees below will be locked in for a period of 6 months.

A summary of our proposed services and quarterly fee is as follows:

Services	
QBO Implementation	
G/L Set Up	
Payroll Set Up	
Historical Data Import	
	\$6,000 - 7,500

QBO Payroll and G/L training will be provided for an additional fee of \$150-175/hour.

#### **Onboarding and Implementation Timeline**

The following briefly details an estimate of the timing we expect for the implementation of our services.

Initial Scoping Meeting	11/15/2021
Begin Implementing G/L Software	11/15/2021
Staff Training and Testing	12/15/2021
Go – Live	01/01/2022



#### **Service Approach**

At Brady Martz, our accountants have specialized knowledge in the areas in which they serve. They can offer insight into complex issues, advice for making sound decisions and knowledge gained from years of experience. We welcome challenging situations and thrive on finding creative and unique solutions. Some of the services we assist our clients with are featured in detail below. If there's something else you had in mind, please don't hesitate to ask.

Some of the additional services we can provide are detailed below.

TAX SERVICES	With decades of experience in the area of tax planning and compliance, Brady Martz is uniquely skilled in helping businesses and their stakeholders reduce their tax liability. We stay on top of the latest rules and regulations to ensure
	we are providing you with accurate and timely information focused on enhancing the performance of your business.
HR CONSULTNG	Our human resources group is equipped to support your internal HR
V 1 /	department. Regardless of the nature of your needs, we help you make
`\\	decisions that are aligned with your organization's specific goals. Whether you
	are recruiting a new executive, developing a more effective incentive plan, or reorganizing your internal structure, we have the expertise to help you make
•	the right decisions for your situation.
CONSULTING	Brady Martz goes beyond technical accounting to analyze your performance
	and offer recommendations on actions you can take to position your business
	for a stronger future. Our goal is to give you the tools to make the best
	decisions for you and your business.
WEALTH	What determines whether your hopes and dreams become a reality?
MANAGEMENT	Exceptional planning. We believe exceptional planning means accounting for every possible aspect of your financial future. Through tax-centric planning, we
	are able to create a comprehensive financial plan unique to you and your
-00	family.

Agreed and accepted:	
Red Lake Watershed District	
Thief River Falls, MN	
By: Board of Directors	
Signature	Date

#### Red Lake Watershed District - Administrators Report

#### November 10, 2021

**Red River Watershed Management Board** – LeRoy (live) and I (virtual) will be attending the RRWMB at 10:00 am November 16, 2021, in Ada. There will be a legislative meeting held at 1:00 December 14<sup>th</sup> in the RRWMB Board Room in Ada. If you would like to attend, please let Tammy know and she will register. The option for attending are calling in or personal.

Minnesota Department of Management & Budget – I have been asked by the MMB to participate in their One Watershed One Plan focus group meeting which will be held 1:00 pm November 17, 2021.

Clearwater River Watershed 1W1P PWG – The Clearwater River Policy Committee held their meeting at 9:30 am November 3, 2021 in the Clearwater County Commissioners Board Room at the Bagley Courthouse. I have included in your packet Project Update 2 dated November 2021 as well as the most recent Goal Fact Sheet which will give you a quick view on progress of the plan development. There is also a PWG meeting scheduled for 9:00 am Wednesday, November 17th in Brooks.

#### MEASURABLE GOAL: DRINKING WATER PROTECTION

Protect groundwater quality and quantity by sealing on average X unused wells per year and implementing irrigation water management practices.

#### **Description**

Groundwater supplies from aquifers are often used as a source of drinking water, to irrigate agricultural fields, to assist in industrial and commercial processes, and to provide a base flow for aquatic habitat in streams and lakes.

In the Clearwater River Watershed, there have been documented complaints about well interference near irrigated fields. Irrigation can be done more precisely by improving when irrigation is applied (irrigation scheduling) and where it is applied (variable rate irrigation). Variable rate irrigation (VRI) is the ability to spatially vary water application depths across a field to address specific soil, crop and/or other conditions (Evans, 2013).

It is also important to protect the aquifer quality for drinking water. Unused wells can provide a conduit for contaminants from the land surface to reach drinking water. Therefore, this goal addresses sealing unused wells to protect drinking water quality.

#### **Issues Addressed**

**♦ Groundwater Contamination ♦ Groundwater Sustainability ♦** Soil Health

#### Goals

Short-Term Goal: XX wells sealed per year; XX number of irrigation projects.

Long-Term Goal: Reliable and consistent supply of drinking water and all unused wells sealed.

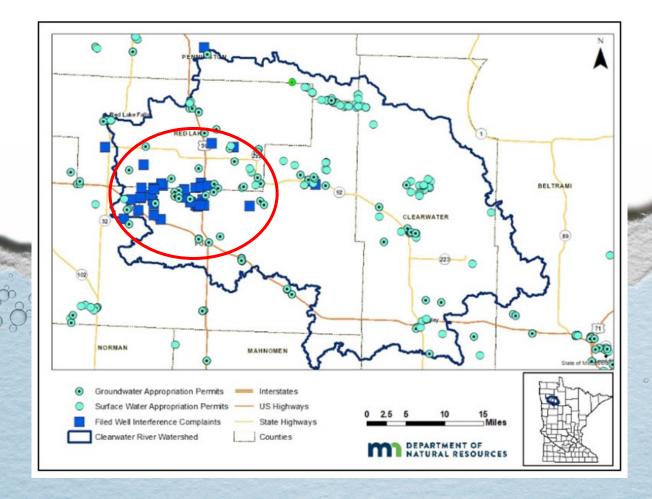
Metric: Number of wells sealed, number of irrigation projects.



#### **Stacking Benefits**

Well-sealing is a watershed-wide goal. BWSR's eLINK database was used to determine the current pace of wells decommissioned per year and continue or increase that pace.

Irrigation practices are targeted where there is a high concentration of well interference complaints based on DNR data.



#### **MEASURABLE GOAL: BACTERIA REDUCTION**

Develop and implement bacteria management projects to address sources of bacteria and make progress towards delisting impairments.

#### **Description**

*E.coli* exists in the gut of warm-blooded animals such as humans, livestock, birds, and pets. When it reaches high levels in the environment, it can make humans sick. Sources of bacteria include feedlots, wastewater treatment facilities (WWTF), subsurface sewage treatment systems (SSTS), and excessive wildlife and domesticated animal populations near streams. Water quality monitoring has identified *E.coli* impairments in the watershed (over the state standard). Practices such as feedlot BMPs, manure management, cattle fencing and watering, and septic system inspections and upgrades can reduce bacterial contributions to streams.

#### **Issues Addressed**

**▶ Bacteria Loading ▶** Sediment Loading **▶** Phosphorus Loading

#### Goals

Short-Term Goal: Implement X bacteria management projects.

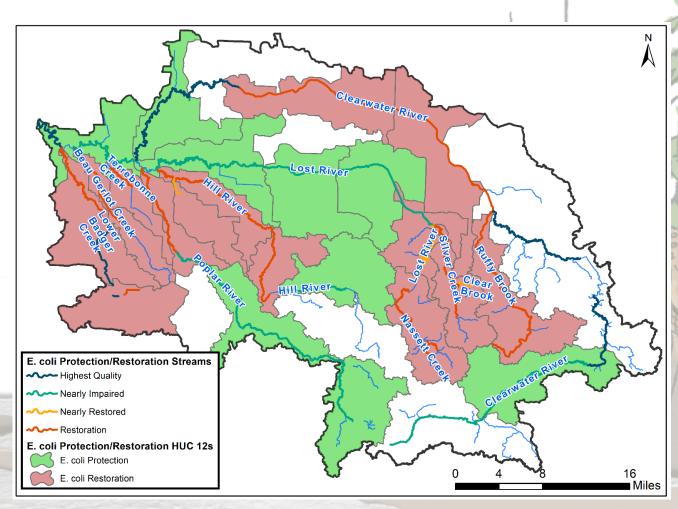
Long-Term Goal: Implement bacteria management practices at all known sources of bacteria.

Metric: Number of bacteria projects in known problem areas.

Planning Region	Short-term Goal (# projects)
Upper Clearwater	
Middle Clearwater	
Lost	
Hill	
Poplar	
Lower Badger Creek	
Lower Clearwater	

#### **Stacking Benefits**

The Clearwater WRAPS identified impaired waters for *E. coli* Restoration and Protection, which are prioritized for bacteria management projects. Projects are targeted first in HUC 12 subwatersheds which contain streams in the Restoration category. BWSR's eLINK tracks conservation practices that are implemented across the state. This data was used to estimate the number of bacteria management projects that are feasible on an annual basis for local entities based on historical progress.



#### MEASURABLE GOAL: HIGH VALUE RESOURCE PROTECTION

Protect and enhance forest cover, native prairies, water quality, habitat, and groundwater by promoting land protection in priority minor watersheds.

#### **Description**

Protecting high value resources in prioritized locations can help improve many issues that are of concern in the Clearwater River Watershed. High value resources include Lakes of Biological Significance (DNR, 2015), cisco lakes, wild rice, trout streams, calcareous fens, forests, and prairies. Native plant communities such as those found within forests and prairies provide services such as groundwater recharge, pollutant filtration, water flow regulation, and wildlife habitat. The south and eastern portions of the watershed are also home to the headwaters of the Clearwater, Poplar, Lost, and Hill Rivers, along with Lower Badger Creek. Protecting these headwaters can prevent erosion and other problems downstream to the Red Lake River. Resource protection involves providing incentives for practices such as putting land into conservation easements, creating forest stewardship plans, and enrolling in tax incentive programs such as the Sustainable Forest Incentive Act (SFIA).

#### **Issues Addressed**

- **Land Use Change and Resource Protection ♦** Groundwater Contamination
- Wetland Degradation → Sediment Loading → Phosphorus Loading

#### Goals

Short-Term Goal:

Long-Term Goal:

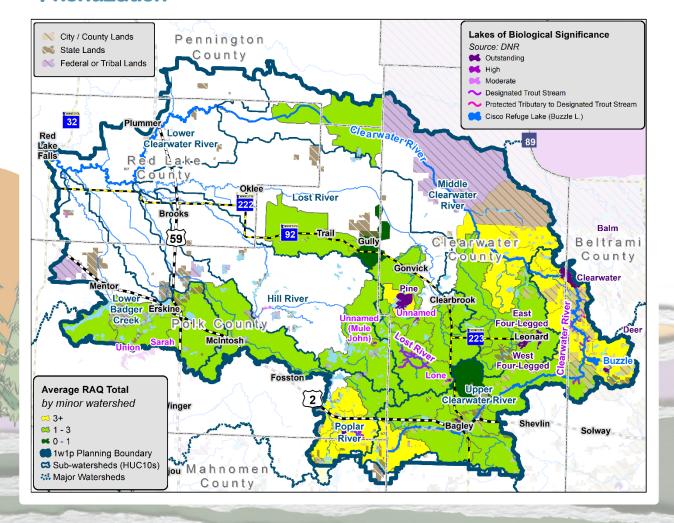
Metric: Acres protected

	Planning Region	Short-term Goal (acres)	Long-term Goal (acres)
00	Upper Clearwater		
200	Middle Clearwater		
3	Lost		
4	Hill		
	Poplar		
-	Lower Badger Creek		
	Lower Clearwater		

The Riparian, Adjacency, Quality (RAQ) Index was developed to target priority locations for resource protection. The RAQ considers quality (high value resources), riparian areas on lakes and streams, and adjacency (connectivity) to other protected lands. The GIS-based analysis targets resources at the parcel level to speed implementation.

Areas with the highest RAQ scores are prioritized for protection: first priority is yellow (including Pine, Clearwater, Buzzle lakes and trout streams), second priority is green in the map below.

#### **Stacking Benefits**



#### MEASURABLE GOAL: SOIL HEALTH

Implement regenerative practices on cultivated cropland with the highest wind and water erosion potential to increase soil health.

#### **Description**

Healthy soils provide a multitude of benefits for farmers and downstream neighbors. Soil health is the capacity of soil to function as a living ecosystem that sustains plants and animals, including humans (USDA-NRCS, 2021). Healthy soils regulate water, filter and buffer pollutants, cycle nutrients, and stabilize plant roots and buildings. As soils degrade, or lose nutrients, microorganisms, and the ability to hold water, they are susceptible to erosion, causing sedimentation in fields and downstream. Regenerative practices such as cover crops, reduced tillage and rotational grazing improve soil organic matter and structure, carbon storage, and water and nutrient holding capacity.

#### **Issues Addressed**

#### Goals

Short-Term Goal: XX acres

Long-Term Goal: Healthy, productive soils across the watershed with regenerative practices implemented watershed-wide

Metric: Acres of practices

Planning Region	Short-Term Goal	Long-term Goal
Lower Clearwater River		
Lower Badger Creek		
Lost River		
Hill River		
Poplar River		
Middle Clearwater River		
Upper Clearwater River		

A critical soil loss analysis was conducted in the Clearwater Watershed to find the top 25% of soils of parcels with the highest wind and water erosion potential. The top 25% represents the short-term goal, while the long-term goal is to see regenerative practices implemented across the watershed. The critical soil loss analysis uses PTMApp data to target acres of farmland that would benefit from soil health practices. Watershed partners will provide technical and financial assistance to farmers interested in implementing these practices.

#### **Stacking Benefits**



#### MEASURABLE GOAL: STORMWATER REDUCTION

Implement stormwater reduction practices.

#### **Description**

While a small portion of the Clearwater Watershed is developed urban area, towns in the watershed still contribute measurable pollutants to waterbodies in the form of stormwater runoff. Stormwater runoff is the phrase used for runoff that accumulates on impervious surfaces during a heavy rainfall and washes into local streams because city streets prevent water from infiltrating into the ground. There are many ways to reduce storm flows to allow for infiltration including small projects on public or private land (rain gardens, permeable parking lots, rain barrels) and larger public projects such as stormwater treatment ponds, biofiltration systems, and drainage system repairs.

#### **Issues Addressed**

**Stormwater Runoff** ◆ Altered Hydrology ◆ Changes in Land Use and Resource Protection ◆ Sediment Loading ◆ Phosphorus Loading ◆ Bacteria Loading

#### Goals

<u>Short-Term Goal</u>: XX number of projects near impaired waterbodies.

Long-Term Goal: Implement projects at all targeted sites.

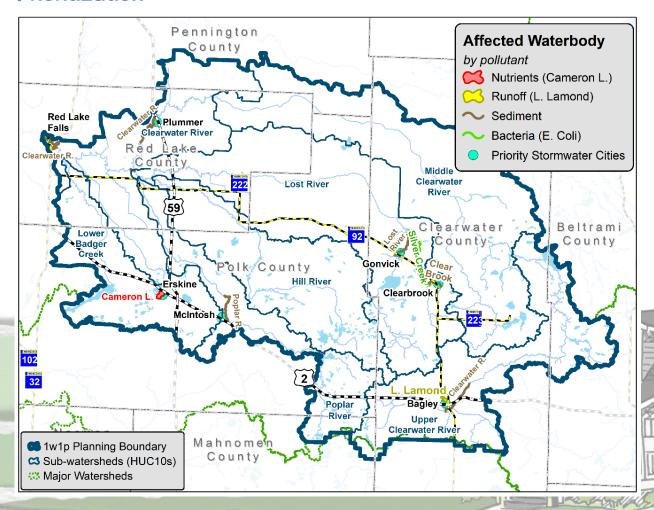
Metric: Number of projects, pollutant reduction from stormwater models

Planning Region	Urban Area	Pollutant	Affected Waterbody	Nearby Reach Impaired for Pollutant
Upper Clearwater River	Bagley	Sediment	Clearwater River	N
Upper Clearwater River	Bagley	Runoff	Lake Lamond	N/A
Lost River	Clearbrook	Sediment	Lost River	N
Lost River	Clearbrook	E. coli	Silver Creek	Υ
Lower Badger Creek	Erskine	Nutrients	Cameron Lake	Υ
Lost River	Gonvick	Sediment	Clear Brook	N
Poplar River	McIntosh	Sediment	Poplar River	N
Lower Clearwater River	Plummer	Sediment	Clearwater River	Υ
Lower Clearwater River	Red Lake Falls	Sediment	Clearwater River	Υ

Prioritization for the Stormwater Reduction goal was completed in the WRAPS process. The short-term goal will target projects in urban areas whose affected water body is impaired for the pollutant to which they contribute.

Stormwater models created for each project will help track acres treated and pollutant reductions.

#### **Stacking Benefits**



#### **MEASURABLE GOAL: RUNOFF REDUCTION**

Reduce runoff volume to address altered hydrology and reduce flood damage downstream by increasing storage in the watershed.

#### **Description**

Changes to hydrology over time can increase the rates at which water flows across the land and into streams and ditches, causing flooding, erosion, and aquatic habitat loss. Hydrologic alteration involves changes to the duration, magnitude, frequency, speed, or timing of water flowing through a watershed (American Rivers, 2017). Common causes of altered hydrology include dams, groundwater withdrawals, impervious surface, and channelization. Runoff occurs when precipitation accumulates faster than the ground can absorb it, flowing over the land and into streams, ditches, lakes, and wetlands. When enough of a watershed has been altered, flood water moves through channels faster than it historically would, bringing along excess sediment. Increased discharges can also scour stream beds, making them inhospitable for aquatic life. A healthy watershed allows for precipitation to infiltrate into the ground, stalled by vegetation and topography.

This goal aims to reduce the volume of runoff reaching the watershed outlet by providing storage such as wetland restorations, detention basins, retention ponds, impoundments, or floodplain restorations. Storage in the Clearwater River Watershed also benefits the Red Lake River Watershed directly downstream.

#### **Issues Addressed**

◆ Altered Hydrology ◆ Wetland Degradation ◆ Sediment Loading ◆ Phosphorus Loading

#### Goals

Short-Term Goal: X% of the long-term goal, or X,XXX acre-feet of storage

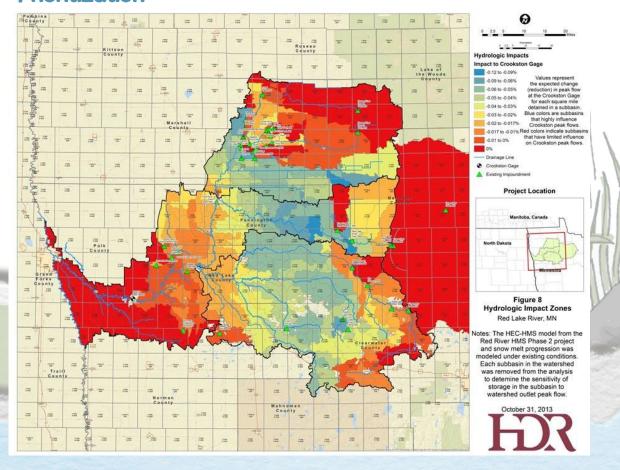
Long-Term Goal: Attain 226,500 acre-feet of additional water storage to meet the RLWD's goal established by the LTFS Basin-Wide Flow Reduction Strategy.

Metric: Acre-feet of storage

The Long-Term Flow Reduction Strategy (LTFS) is a collaborative effort in the Red River Basin to set goals to increase storage and decrease the impact of altered hydrology and flooding (20% reduction basin-wide). As part of this effort, watershed districts created their own Distributed Detention Strategies (DDS) to determine individual contributions to the larger goal. The RLWD DDS goal is 226,500 acre-feet of storage, or 30 off-channel storage sites and 3 on-channel storage sites, either gated or ungated. The central region of the Clearwater Watershed is generally prioritized for projects in this study.

The short-term goal will be a percentage of progress towards the long-term goal.

#### **Stacking Benefits**



#### MEASURABLE GOAL: SEDIMENT REDUCTION

Reduce sediment delivery to streams, lakes, and drainage systems.

#### **Description**

Sedimentation occurs when wind and water erosion move topsoil off the land and deposit it in a different place. Overland erosion is caused when exposed soils encounter heavy rains, rushing water, or strong winds (Ritter, 2018). Human activities can increase erosion when vegetation is removed from the land for agriculture, mining, construction, or logging. When sediment is deposited on the land, it can inhibit crop productivity and damage roads and bridges. Sedimentation in streams can increase flooding downstream and decrease the quality of aquatic habitat.

Projects such as grassed waterways, water and sediment control basins (WASCOBs), impoundments, conservation tillage, cover crops, filter strips, and perennial vegetation reduce sediment loading to streams, lakes, and drainage systems.

#### **Issues Addressed**

- **♦ Sediment Loading ♦** Phosphorus Loading **♦** Streambank and Riparian Stabilization
- ♦ Soil Health

#### Goals

Short-Term Goal: Based on the PTMApp scenario.

Long-Term Goal: TMDL and WRAPS reductions.

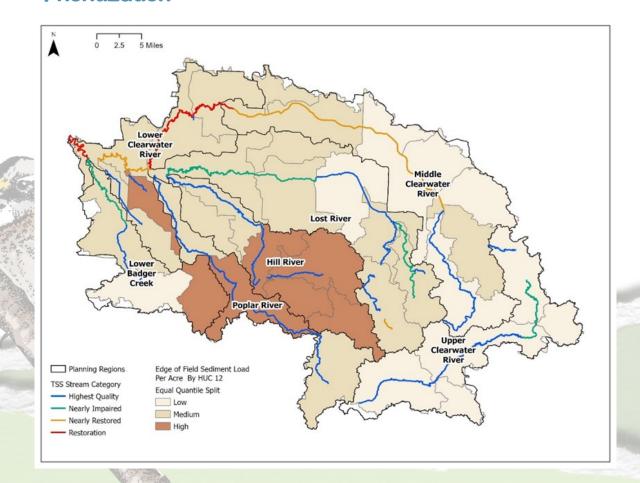
Metric: Tons of sediment

Planning Region	PTMApp Sediment Load at PR Outlet (lbs/yr)	Short-term Goal at PR Outlet (lbs/yr)	Long-term Goal (WRAPS/TMDL) (lbs/yr)
Lower Clearwater River	18,491		4,650 (25%)
Lower Badger Creek	4,235		424 (10%)
Lost River	13,177		1,318 (10%)
Hill River	6,064		303 (5%)
Poplar River	3,227		161 (5%)
Middle Clearwater River	9,678		858 (9%)
Upper Clearwater River	1,223		61 (5%)

TMDL Site	PTMApp Sediment Load at PR Outlet (lbs/yr)	Short-term Goal at PR Outlet (lbs/yr)	Long-term Goal (WRAPS/TMDL) (lbs/yr)
002-118 (Lower Clearwater)	19,646		4,941 (25%)
S002-914 (Lower Clearwater)	18,142		8,819 (25%)
S002-124 (Lower Clearwater)	10,988		1,724 (16%)
S002-916 (Middle Clearwater)	8,473		752 (9%)
S004-205 (Lost River)	1,756		176 (10%)

The sediment delivery goals are based on percentages determined from modeling during the WRAPS and TMDL process. Targeting is based on impairments and PTMApp loading estimates for HUC 12 subwatersheds.

#### **Stacking Benefits**



## MEASURABLE GOAL: STREAMBANK AND RIPARIAN STABILIZATION

Stabilize streams to improve channel integrity and riparian protection.

#### **Description**

Over time, streambanks can erode due to natural processes or from channelization. Upstream hydrology changes can also cause incision and other types of erosion in channels as a result of high flows, fast moving water, and a lack of stream sinuosity and natural streambed features. Inchannel erosion accounts for large portions of sedimentation in Clearwater streams. There are many solutions to address stream instability, including stream restoration and the expansion of riparian and bank vegetation.

Riparian corridors provide benefits such as pollutant filtration, slowing flood waters, wildlife habitat and continuity, and bank stabilization. Deep roots of riparian and bank vegetation hold soil in place, and the loss of this vegetation contributes to sediment loading downstream.

#### **Issues Addressed**

**Unstable Stream Channels ♦ Sediment Loading ♦** Phosphorus Loading ♦ Altered Hydrology

#### Goals

Short-Term Goal: XX miles or XX% of long-

term goal

Long-Term Goal: XX miles of stream stabilized

Metric: Miles of stream stabilized, tons of sediment (from engineering estimates)

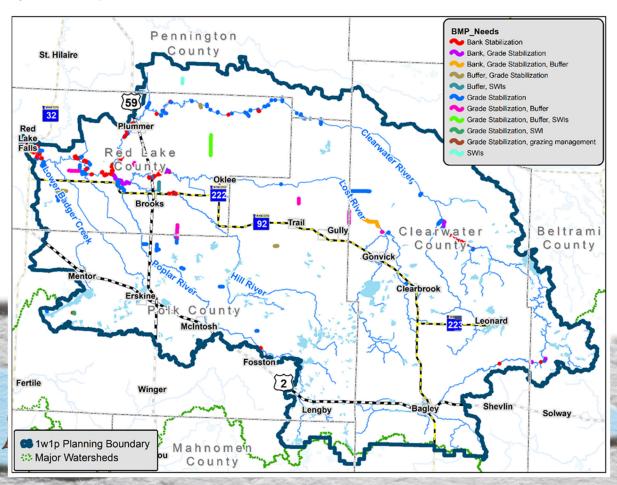


# Planning Region Miles of Unstable Channel Identified Lower Clearwater River Lower Badger Creek Lost River Hill River Poplar River Middle Clearwater River Upper Clearwater River Total



**Stacking Benefits** 

TBD...





#### MEASURABLE GOAL: DITCH STABILIZATION

Stabilize X priority ditch miles and X ditch outlets.

#### **Description**

Due to the flat terrain of the Red River Valley, extensive agricultural drainage networks were developed early on to drain the saturated soils. Over time, some of these ditches have eroded or become unstable. Some indications of ditch instability include bank failure, incision, undercutting or overwidening, and sediment deposition (Roundy, 2020). Ditch stability is effected by human-induced and environmental factors such as proper design and construction to match expected flows, quality vegetation of side slopes, increased flow contributions to the drainage area, and the depth of the water table (Magner, 2010). Regular ditch maintenance can minimize erosion and issues with flooding, stream stability, water quality and aquatic habitat. This goal will be accomplished by implementing stabilization projects in ditches and ditch outlets.

#### **Issues Addressed**

- **◆ Drainage System Instability and Inadequacy ◆** Sediment Loading **◆** Phosphorus Loading **◆**
- Altered Hydrology

#### Goals

Short-Term Goal: XX% or XX miles of long-term goal

Long-Term Goal: XX miles of ditch stabilized and XX ditch outlets stabilized

Metric: Miles of ditch stabilized, number of ditch outlets stabilized.

		20 0
Planning Region	Miles of Unstable Channel Identified	
Lower Clearwater		9
Lower Badger Creek		1
Lost River		
Hill River		
Poplar River		-
Middle Clearwater River		
Upper Clearwater River		
Total		

Problem areas were identified by local ditch authorities and prioritized by need. Priorities were defined as segments of ditches that are currently experiencing bank failures or downcutting. Potential load reductions in tons of sediment will also be measured for each completed project.

#### **Stacking Benefits**



### MEASURABLE GOAL: PHOSPHORUS REDUCTION

Reduce phosphorus delivery to streams, lakes, and drainage systems.

#### **Description**

Phosphorus is a nutrient that helps plants grow. In excessive amounts, phosphorus can be damaging to an aquatic system, causing harmful algal blooms that can be toxic to humans, pets, and wildlife. Harmful algal blooms also cause eutrophication in lakes and streams, a condition that limits oxygen to aquatic life.

Phosphorus binds to sediment and therefore, when erosion occurs or when sediment is disturbed, phosphorus is released to streams and lakes. Practices that address sediment and erosion also provide phosphorus reductions.

#### **Issues Addressed**

- ♦ **Phosphorus Loading** ♦ Sediment Loading ♦ Streambank and Riparian Stabilization
- ♦ Soil Health ♦ Bacteria Loading

#### Goals

Short-Term Goal: based on the PTMApp

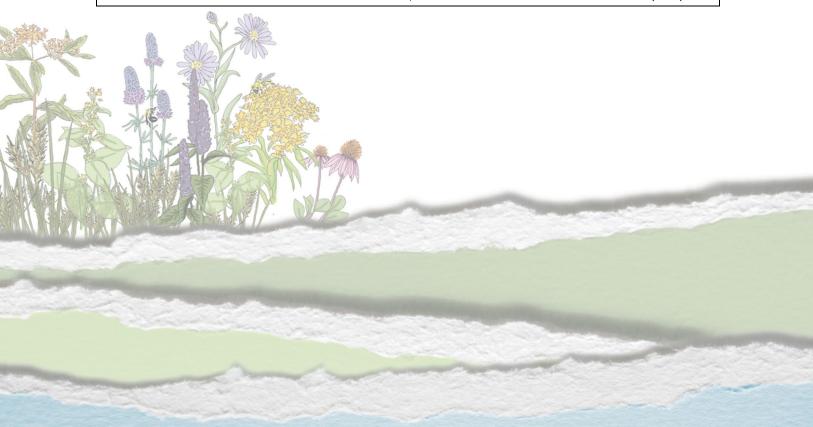
scenario

Long-Term Goal: TMDL and WRAPS reductions.

Metric: Pounds of phosphorus

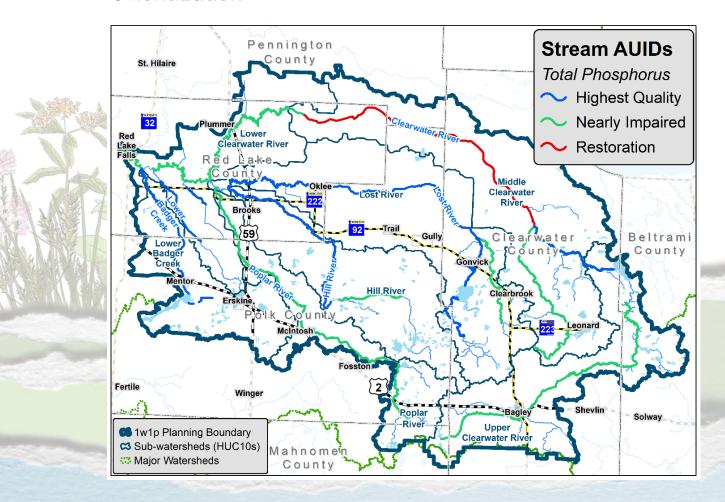
Planning Region	PTMApp Phosphorus Load at PR Outlet (lbs/yr)	Short-term Goal Reduction at PR Outlet (lbs/yr):	Long-term Goal Reduction (WRAPS) (lbs/yr)
Lower Clearwater River	55,724		5,572 (10%)
Lower Badger Creek	6,966		697 (10%)
Lost River	33,309		3,331 (10%)
Hill River	11,319		1,132 (10%)
Poplar River	6,084		608 (10%)
Middle Clearwater River	16,734		2,175 (13%)
Upper Clearwater River	3,614		361 (10%)

Lake	Protection/ Restoration Category	PTMApp TP Load Delivered to Lake (lbs/yr)	Short-term Goal Reduction (lbs/yr)	Long-term Goal Reduction (WRAPS) (lbs/yr)
Cameron Lake	Impaired	194		126 (65%)
Stony Lake	Impaired	37		27 (72%)
Long Lake	Impaired	175		63 (36%)
Maple Lake	Nearly Impaired	4,330		303 (7%)
Whitefish Lake	Nearly Impaired	983		98 (10%)
Clearwater Lake	Nearly Impaired	4,663		466 (10%)
Bagley Lake	Nearly Impaired	178		18 (10%)
Lake Lomond	Nearly Impaired	323		32 (10%)
Peterson Lake	Nearly Impaired	139		14 (10%)
Minnow Lake	Nearly Impaired	83		8 (10%)
Sabe Lake	Nearly Impaired	43		4 (10%)
Turtle Lake	Nearly Impaired	343		34 (10%)
Spike Lake	Nearly Impaired	891		89 (10%)
Walker Brook Lake	Nearly Impaired	433		43 (10%)
Johnson Lake	Nearly Impaired	537		54 (10%)
First Lake	Nearly Impaired	2,031		20 (10%)
Second Lake	Nearly Impaired	2,230		22 (10%)
Lindberg Lake	Nearly Impaired	90		9 (10%)
Spring Lake (Lengby)	Nearly Impaired	739		74 (10%)
Cross Lake	Nearly Impaired	1,120		11 (10%)



Priority streams and lakes were identified using the WRAPS Protection and Restoration analysis. Phosphorus load reduction goals for impaired lakes and streams were identified in the TMDL and applied to loading amounts derived from PTMApp. Phosphorus load reduction goals for non-impaired streams and lakes were determined by the Planning Work Group and Advisory Committee and are meant to prevent future impairments.

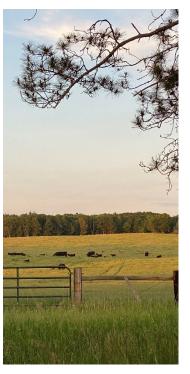
#### **Stacking Benefits**





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#### **One Watershed One Plan Progress**



The Clearwater River One Watershed One Plan is making steady progress and is now through the issue identification and prioritization step of the planning process. This step sets the priorities on what the plan will address.

The focus of the planning partnership this fall is working on setting goals to address the priority issues. These goals will guide the measurable changes desired in resource conditions as the plan is implemented. For example, progress towards the soil health goal will be tracked by acres of soil health practices implemented such as cover crops, no till, and pasture management. The goals are comprehensive and include bacteria reduction, phosphorus reduction, sediment

reduction, runoff reduction, streambank stabilization, soil health, groundwater quality and quantity, and protection of high-quality lakes, streams and forests.

The next step in the planning process is to develop actions that will be implemented to reach the goals. The planning partnership will work on actions throughout the winter.

#### **Project Timeline**



#### **Project Partners:**

Clearwater County & SWCD
Red Lake County & SWCD
Polk County & East Polk SWCD
Pennington County & SWCD
Red Lake Watershed District
https://www.rlwdwatersheds.org/clearwater1w1p

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