RED LAKE WATERSHED DISTRICT

April 23, 2026

9:00 a.m.

Agenda

9:00 a.m.	Call to Order	Action
	Review and approve agenda	Action
	Requests to appear	Information
	April 9, 2026 Minutes	Action
	Financial Report as of April 22, 2026	Action
	Certificate of Deposit Renewal	Action
	RLWD Project No. 149A, Thief River 1W1P Thief River Streambank 2026 Sites Set Bid Opening Date – May 28, 2026 @ 9:30 am	Action
9:30 a.m.	RLWD Project No. 179, Improvement to Polk County Ditch 39	Info/Action
	Chuck Flage Erosion Control, RLWD Project No. 174	Information
	Red Lake River 1W1P, RLWD Project No. 149 Mid-Point Plan Amendment Comments	Information
	Thief River Comprehensive Watershed Management Plan Amendment 30 Day Review Letter	Information
	Moose River, RLWD Project No. 13 – Inlet	Information
	Beltrami County Culvert Inventory	Info/Action
	Mud River, RLWD Project No. 180C Funding/EAW/Landowner Meeting	Information
	Red Lake/Polk County Line Outlet Stabilization Project RLWD Project No. 149, HDR Proposal	Info/Action
	County Road 62, RLWD Project No. 171/171A Pennington County Highway Dept. Funding Request	Info/Action
	Permit Extension: RLWD Permit No. 25029 Section 13, Deer Park Township, Pennington County	Info/Action

RLWD Permit No. 26004, Rocksbury Township, Pennington County]	Info/Action
Permits: 26011, 26013, and 26014	Action
Administrator's Update	Information
Legal Counsel Update	Information
Managers' Updates	Information
Adjourn	Action

UPCOMING MEETINGS:

April 23, 2026	RLWD Board Meeting, 9:00 am
April 30, 2026	Red Lake River 1W1P Policy Committee Meeting, 9:30 am
May 14, 2026	RLWD Board Meeting, 9:00 am
May 19, 2026	RRWMB Meeting, Ada, 10:00 am
May 25, 2026	HOLIDAY – RLWD Office Closed
May 28, 2026	RLWD Board Meeting, 9:00 am

RED LAKE WATERSHED DISTRICT
Board of Manager's Minutes
April 9, 2026

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

Present: Managers: Gene Tiedemann, Tom Anderson, Brian Dwight, Grant Nelson, Terry Sorenson, LeRoy Ose, and Allan Page. Staff Present: Tammy Audette, Melissa Bushy, Elaine Rychlock, Tony Olson, Erick Huseth, Corey Hanson, Lindsey Deselich, and Legal Counsel, Delray Sparby.

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

The Board reviewed the March 26, 2026, Board meeting minutes. Motion by Nelson, seconded by Sorenson, to approve the March 26, 2026, Board meeting minutes. Motion carried.

The Board reviewed the Financial Report as of April 8, 2026. Motion by Dwight, seconded by Page, to approve the Financial Report as of April 8, 2026. Motion carried.

Administrator Audette discussed the petition for Improvement to that portion of Judicial Ditch No. 1 discharging into Outlet #3, RLWD Project No. 184. Landowner, Greg Hilgeman, was present for the discussion. The petitioners seek the improvement to portions of Judicial Ditch No. 1 discharging into Outlet #3 as located in Deer Park Township, Pennington County, and Equality Township, Red Lake County. The ditch is currently under the authority of the Pennington/Red Lake County Joint Ditch Authority. The proposed improvements include the re-sloping of the ditch banks, enlargement of the ditch bottom, and improved grading to said portions of the ditch to the point where said portions would meet construction standards for a modern ditch with adequate hydraulic capacity to withstand a 10-year 24-hour rain event without overflowing. Hilgeman requested HDR Engineering to be appointed as Engineer to the project. After much discussion, a motion was made by Nelson, seconded by Anderson, to approve the petition for Improvement to a portion of Judicial Ditch 1, Outlet #3, RLWD Project No. 184, and appoint HDR Engineering as the engineer for the Improvement proceeding. Motion carried.

Tony Nordby, HEI, and Administrator Audette discussed the Brule Bank Stabilization, Red Lake River 1W1P, RLWD Project No. 149, with an estimated cost of $1,329,021.03. Nordby discussed the various meetings with MnDNR staff regarding design of the project and recent meetings with the landowner and renter. Audette noted that the landowner wishes to proceed with the project as proposed. Staff member, Corey Hanson, reviewed the proposed funding costs/breakdown indicating that the District has MnDNR CPL funds remaining from the Huot Bank Stabilization Project, along with funding from the Red Lake WBIF and 319 Funding. The CPL and 319 funding both require match funding. Audette stated that match funding is approximately $214,834.23 A motion was made by Page, seconded by Sorenson, to approve the match funding for construction of the Brule Bank Stabilization project, RLWD Project No. 149 . Motion carried.

Tony Nordby, HEI, and staff member Tony Olson, discussed a potential project located in Section 8, Whiteford Township, Marshall County. Olson stated that as part of a RLWD permit application, he had been working with the landowners for the potential installation of side water inlet (SWI) culverts. After discussion with various local governmental unit staff members it was recommended to have discussion with the landowners on the potential of restoring the oxbows in this area, which would allow the landowners to outlet their water through a SWI into the oxbow. Nordby stated that it would be similar to the Swift Coulee project for MSTRWD. Motion by Ose, seconded by Nelson, to hold a meeting with landowners in Section 8, Whiteford Township, to gauge their interest in a project. Motion carried.

Administrator Audette updated the Board on Turtle Connection Cross Lakes, RLWD Project No. 114. Audette did hear back from Nathan Kestner, DNR, that we would need to have 100% of the easements signed to move forward with the project.

Administrator Audette reviewed costs and current updates with the Improvement to Polk County Ditch 39, RLWD Project No. 179. We need to review the costs vs. benefits ratio before we move ahead with the project. The Viewers and Engineer for the project will present the updated reports at the April 23rd RLWD Board meeting.

The Hearing for the Red Lake River 1W1P Draft Amendment will take place at the RLWD on April 30, 2026, at 9:30 am.

Administrator Audette shared that things are progressing with the proposed 1W1P Coordinator position. Next steps are coming up with a job description.

We have hired Paige Burns to be our summer intern for 2026. She will start on May 11, 2026.

RLWD staff are requesting summer hours from Memorial Day weekend to Labor Day weekend, which would entail working Monday – Thursday, 7:00 a.m.- 4:30 p.m. (9-hour days) and Friday, 8:00 a.m. – 12:00 p.m. (4-hour day), therefore closing the office at noon on Friday's. Consideration would be given for construction activities and the water sampling schedule as per approval by the Administrator. Motion by Dwight, seconded by Page, to approve the request of District Staff for summer hours as referenced between Memorial Day weekend and Labor Day weekend. Motion carried.

Administrator Audette and staff member, Lindsey Deselich, discussed the 2026 River Watch Retreat. After discussion by the Board, a motion was made by Page, seconded by Anderson, to approve the RLWD covering the cost of the 2026 River Watch Retreat for current River Watch students that would be interested in attending. Motion carried.

Staff member, Tony Olson, discussed RLWD Permit No. 26008, from James Oberg located in Section 28 of Brandt Township, Polk County. After much discussion, a motion was made by

Ose, seconded by Sorenson, to approve the permit noting the landowner will also need Brandt Township approval. Motion carried.

The Board reviewed the following permits for approval. Motion by Page, seconded by Ose, to approve the following permits with conditions stated on the permit: No. 26003, Greg LeBlanc, Kertsonville Township, Polk County; No. 26006, Dominic LeBlanc, Gentilly Township, Polk County; No. 26007, Polk County Highway Dept., Gentilly Township, Polk County; No. 26010, Jeff Stenberg, Garnes Township, Red Lake County; and No. 26012, Enbridge, Norden Township, Pennington County.

Administrator's Update:

- **City of TRF/Agassiz Tour**: Staff members Hanson and Audette will be attending the day tour on May 7.
- **JD11/JD21 Joint Meeting**: Staff members Audette, Koland and Hanson attended the joint meeting held in Grygla on March 30th.

Legal Counsel Sparby indicated that he needs to draft a letter to CPL Railroad in regard to RLWD Project No. 171A and the culvert plugged with cement. HDR Engineering is obtaining information as to the site and availability of room for positioning of another culvert without removing the plugged culvert.

Motion by Nelson, seconded by Sorenson, to adjourn the meeting. Upon a roll call vote, motion carried unanimously.

_____

LeRoy Ose, Secretary

RED LAKE WATERSHED DISTRICT
Financial Report for April 23, 2026

Ck#	Check Issued to:	Description	Amount
online	EFTPS/MN Withholding	Withholding FICA,Fed, Medi, & MN Tax (pp 4/22/26)	$6,231.54
online	PERA	pp 4/22/26	$3,309.77
42196	Kristi Huseth	Office Cleaning	$665.00
42197	Lonnie Larson	TR Project Work Team Meeting Mileage - #181	$27.55
42198	Nathan Bukowski	TR Project Work Team Meeting Mileage - #181	$34.80
42199	Beltrami SWCD	Keep it Clean Donation (board approved 10-23-25) #46	$20,000.00
42200	Patrick Erickson	TR Project Work Team Meeting Mileage - #181	$143.55
42201	Jeremy Nelson	TR Project Work Team Meeting Mileage - #181	$21.75
42202	Marshall County SWCD	*** see details below	$16,351.41
42203	David Myhrer	TR Project Work Team Meeting Mileage - #181	$20.30
42204	Roger Beiswenger	Viewers Meetings & Mileage #179	$587.00
42205	West Polk SWCD	*** see details below	$3,309.89
42206	Michael Baumgartner	Viewers Meetings & Mileage #179	$1,193.00
42207	Quality Spray Foam/Anderson Exc.	Dug Snow from Blk River Imp. #176A	$630.00
42208	Dakota Mailing & Shipping	Cartridges for Postage Machine (2)	$179.76
42209	Kelly Dahlen	Inspection & Mowing on Good Lake #67	$386.00
42210	The Exponent	RL Comprehensive Notice of Publication Add	$98.90
42211	Marco	Monthly Phone Expense	$355.24
42212	Station 59	Car wash refills for vehicles	$80.00
42213	Roger Wagner	Viewers Meetings & Mileage #179	$2,462.43
42214	Clearwater Co. SWCD	*** see details below	$69,377.28
42215	Houston Engineering	*** see details below	$52,679.50
42216	Oil Boyz Express	Oil Change & tire rotation on Erick's truck	$113.46
42217	Red Lake County SWCD	Trees for Streambank Stab. #149B	$228.00
42218	Pennington SWCD	*** see details below	$6,900.86
42219	David Rodahl	TR Project Work Team Meeting Mileage - #181	$14.50
42220	HDR	*** see details below	$60,760.89
online	City of Thief River Falls	Utility Bill	$351.34
online	WEX	Dependent Care Reimbursement	$620.00
online	Les's Sanitation	Garbage Services	$36.46
online	Sun Life Insurance	Staff Life Insurance	$144.64
online	Voya	Staff Health Care Savings Plan (pp 4-22-26)	$365.73
online	Intuit Quick Books	Monthly Fee	$523.50
online	WEX	Dependent Care Reimbursement	$20.00
online	WEX	Medical Care Reimbursement	$95.17
direct	Tom Anderson	Mileage	$162.40
direct	Melissa Bushy	River of Dreams supplies reimbursement	$21.26
online	Board & Staff Payroll	(4/22/26)	$17,649.12
	Total Checks		**$266,152.00**

Clearwater SWCD	Admin /T&E fees for 2025	$16,543.31
	Reimbs. for Direct Exp	$48,587.84
		$65,131.15
****HDR**	JD 4 Engineering fees #101	$11,325.00
	Burnham Creek fees #43B	$17,300.00
	Brandt Channel Upstream fees #60D	$4,520.00
	Project Management -#92	$2,055.89
	Project Development - #92	$23,560.00
	TRF Westside As-builds #178	$2,000.00
		$60,760.89
*****Houston**	TR/SD #83 T&E Services	$16,547.50
	Brule Stabilization	$17,384.25
	Clearwater River Channel Stab.	$5,842.50
	Thief River FDR T&E Services	$12,905.25
		$52,679.50
*****Marshall SWCD**	Thief River #149A 1W1P	$14,251.41
	Trees for Red Lake River & TR 1W1P	$2,100.00
		$16,351.41
*****Penn SWCD**	Red Lake River Admin/ T&E #149 1W1P	$5,052.22
	Thief River Admin/Pro. Dev #149A 1W1P	$1,848.64
		$6,900.86
*****West Polk SWCD**	Red Lake Rvr #149 1W1P Invoice# 2025-509	$1,531.51
	Red Lake Rvr #149 1W1P Invoice# 2025-481	$1,714.67
	Red Lake Rvr #149 1W1P Invoice# 2025-542	$63.71
		$3,309.89

State Bank TRF	Balance as of April 8, 2026		$905,923.68
	Total Check Written		-$266,152.00
	Receipt #12505	State of MN - MPCA Pollution Control #157B	$4,254.74
	Balance as of April 22, 2026	Current interest rate is 3.25%	**$644,026.42**
American Federal Fosston	Balance as of April 8, 2026		$3,895,773.13
	Balance as of April 22, 2026	Current interest rate is 3.35%	**$3,895,773.13**

CD's	**Dakota Heritage**	12 month CD 4.50% Expiry 5-07-26	$ 500,000.00
	Dakota Heritage	12 month CD 4.50% Expiry 5-07-26	$ 500,000.00
	Edward Jones	12 month CD 4.25% Expiry 5-29-26	$ 237,000.00
	Edward Jones	12 month CD 4.30% Expiry 6-18-26	$ 239,000.00
	Dakota Heritage	12 month CD 4.04% Expiry 2-11-27	$ 250,000.00
	Dakota Heritage	12 month CD 4.04% Expiry 2-26-27	$ 500,000.00
	Dakota Heritage	12 month CD 4.04% Expiry 2-26-27	$ 250,000.00
	Ultima Bank	12 month CD 3.75% Expiry 2-27-27	$ 500,000.00
		Total CD Investments	**$2,976,000.00**
		Total Cash (NSB + AFB + CD's)	**$7,515,799.55**

Cash that has been received and earmarked for projects:
(taken from remaining balance on financials)

	2024 Grant Red Lake River 1W1P Project #149	$306,463.77
40% rcv'd after reconciliation 2/28/26	2024 Grant Thief River 1W1P Project #149A	-$107,279.53
	2023 Grant Clearwater 1W1P Project #149B	$155,385.76
	2025 Grant Clearwater 1W1P Project #149B	$1,485,882.00
	2024 CRP Payment Red Lake 1W1P	$2,132.00
	2025 CRP Payment Red Lake 1W1P	$100,000.00
	2026 Grant Thief River 1W1P Project #149A	$353,194.00
	2026 MIDPOINT Red Lake River Project #149	$10,000.00
	2025 MIDPOINT Thief River Project #149A	$38,198.00
		$2,343,976.00

Payables committed to by board action:

City of Grygla	$12,500.00
Mud River 180C	$500,000.00
	$ 512,500.00

Total accessible cash (Est.)	**$ 4,659,323.55**

	Dakota Heritage	**American Federal**	**Northern State Bank**	**Ultima Bank MN**	**Edward Jones**
	218-253-2265	218-435-1474	218-681-4020	218-435-2265x104	218-683-5436
	Red Lake Falls	Fosston	Thief River Falls	Fosston	Thief River Falls
	Casey	Ryan	Personal Banking	Mike	Kevin
CD Rates	12 mo. @ 4.04%	12 mo. @ 3.50%	13 mo. @ 3.5%	24 mo. @ 3.95%	12 mo. @ 3.95%
as of	9 mo. @ 3.89%	6 mo. @ 3.50%	7 mo. @ 3.2%	12 mo. @ 3.95%	6 mo. @ 3.9%
4/22/2026	7 mo. @ 3.89%	3 mo. @ 3.50%			3 mo. @ 3.85%


Muzzy Site 2_2025
Ditch 20 Outlet
Lindholm 2026
TRF LLC_Ose 2025
Ditch 20
Furman Site look at in 2026
Dyrud 2026
170th Ave NE

Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT

For Staff Documentation & Contractor Information

014 Repair #26-017

OVERVIEW

Date Repair Was Created:	2026-04-20	Branch:	
Problem/Proposed Work:	A geomorphology study completed by RLWD water quality department and routine ditch inspection by the drainage department identified this site for repair. Large area of sloughing and minning of the bank is taking place at this site. Repairing ditch bank will reduce sediment transfer and not imped flows downstream on SD83.		
Ditch Repair:	Slough		
Tile Repair:			
FEMA Event:	None	FEMA Date:	None

REPAIR LOCATION DETAILS

Commissioner District:		Township:	Excel Township
Twp:	155	Range:	43
Section:	25	Qtr-Qtr Section:	NWNW
Latitude:	48.22325554453668	Longitude:	-96.1259436179804
Parcel Number:			
Location Details			

Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT

For Staff Documentation & Contractor Information

PERSON REQUESTING REPAIR

Name	Address	Phone
Erick/Corey	None	218-681-1000

LANDOWNER

Name	Address	Phone
Lars Dyrud	None	None

STATUS LOG

Action	Date	Initials	Notes
For Review	04/20/2026	ehuseth	None

DRAINAGE AUTHORITY ACTIONS

Action	Date	Board Date	Initials	Notes
For Approval	2026-01-22	2026-05-05	ehuseth	None

REPAIR ESTIMATES

Order	Date	Contractor	Total Cost	Notes

REPAIR INVOICES

Order	Date	Contractor	%Complete	Total Cost	Notes

INSPECTION LOG

Date	Initials	Notes
2026-04-20	ehuseth	

Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT

For Staff Documentation & Contractor Information

INSPECTION PHOTOS

Date (04/20/2026) - Inspector(ehuseth)

04/20/2026 - 20260113_125938.jpg

04/20/2026 - 20260113_125827.jpg

Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT

For Staff Documentation & Contractor Information

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Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT
For Staff Documentation & Contractor Information

04/20/2026 - 20260113_125822.jpg

Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT

For Staff Documentation & Contractor Information

Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT

For Staff Documentation & Contractor Information

014 Repair #26-018

OVERVIEW

Date Repair Was Created:	2026-04-20	Branch:	
Problem/Proposed Work:	A geomorphology study completed by RLWD water quality department and routine ditch inspection by the drainage department identified this site for repair. Large area of sloughing and minning of the bank is taking place at this site. Repairing ditch bank will reduce sediment transfer and not imped flows downstream on SD83.		
Ditch Repair:	Slough		
Tile Repair:			
FEMA Event:	None	FEMA Date:	None

REPAIR LOCATION DETAILS

Commissioner District:		Township:	Excel Township
Twp:	155	Range:	43
Section:	25	Qtr-Qtr Section:	NWNW
Latitude:	48.22524762926653	Longitude:	-96.12557337161402
Parcel Number:			
Location Details			

Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT

For Staff Documentation & Contractor Information

PERSON REQUESTING REPAIR

Name	Address	Phone
Erick/Corey	None	218-681-1000

LANDOWNER

Name	Address	Phone
Blair Lindholm	None	218-686-2397

STATUS LOG

Action	Date	Initials	Notes
For Review	04/20/2026	ehuseth	None

DRAINAGE AUTHORITY ACTIONS

Action	Date	Board Date	Initials	Notes
For Approval	2026-01-22	2026-05-05	ehuseth	None

REPAIR ESTIMATES

Order	Date	Contractor	Total Cost	Notes

REPAIR INVOICES

Order	Date	Contractor	%Complete	Total Cost	Notes

INSPECTION LOG

Date	Initials	Notes
2026-04-20	ehuseth	

Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT

For Staff Documentation & Contractor Information

INSPECTION PHOTOS

Date (04/20/2026) - Inspector(ehuseth)

04/20/2026 - 20260113_125209.jpg

04/20/2026 - Lindholm2.JPG

Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT
For Staff Documentation & Contractor Information

04/20/2026 - Lindholm1.JPG

Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT
For Staff Documentation & Contractor Information

04/20/2026 - Lindholm3.JPG

Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT
For Staff Documentation & Contractor Information

Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT
For Staff Documentation & Contractor Information

014 Repair #26-016

OVERVIEW

Date Repair Was Created:	2026-04-17	Branch:	
Problem/Proposed Work:	Slough identified by RLWD ditch inspector(Erick) in fall of 2024. Slough has been monitored since and appears to be further eroding and inundating the access road. The erosion is becoming dangerous for inspection and maintenance (tractor mower) in this area causing sediment to deposit downstream impeding flow on SD83 and needs to be repaired.		
Ditch Repair:	Slough		
Tile Repair:			
FEMA Event:	None	FEMA Date:	None

REPAIR LOCATION DETAILS

Commissioner District:		Township:	Agder Township
Twp:	155	Range:	42
Section:	7	Qtr-Qtr Section:	SENW
Latitude:	48.25880779794474	Longitude:	-96.10164562453276
Parcel Number:			
Location Details			

Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT

For Staff Documentation & Contractor Information

PERSON REQUESTING REPAIR

Name	Address	Phone
Erick	1000 Pennington Ave N	218-686-9483

LANDOWNER

Name	Address	Phone
Dave Rodahl	None	218-684-4830

STATUS LOG

Action	Date	Initials	Notes
For Review	04/17/2026	ehuseth	None

DRAINAGE AUTHORITY ACTIONS

Action	Date	Board Date	Initials	Notes
For Approval	2026-01-22	2026-05-05	ehuseth	None

REPAIR ESTIMATES

Order	Date	Contractor	Total Cost	Notes

REPAIR INVOICES

Order	Date	Contractor	%Complete	Total Cost	Notes

INSPECTION LOG

Date	Initials	Notes
None	ehuseth	None

Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT
For Staff Documentation & Contractor Information

INSPECTION PHOTOS

Date () - Inspector(ehuseth)

04/17/2026 - IMG_1477.JPG

04/17/2026 - IMG_0494.JPG

Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT
For Staff Documentation & Contractor Information

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Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT
For Staff Documentation & Contractor Information

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Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT
For Staff Documentation & Contractor Information

04/17/2026 - IMG_1470.JPG

Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT
For Staff Documentation & Contractor Information

04/17/2026 - IMG_0492.JPG

Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT
For Staff Documentation & Contractor Information

04/17/2026 - Rodahl Site 2a.JPG

Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT
For Staff Documentation & Contractor Information

04/17/2026 - Rodahl Site 2b.JPG

Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT
For Staff Documentation & Contractor Information

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Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT
For Staff Documentation & Contractor Information

04/17/2026 - IMG_1478.JPG

Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT
For Staff Documentation & Contractor Information

04/17/2026 - Rodahl Site2.JPG

Red Lake Watershed District
DRAINAGE DEPARTMENT
REPAIR REPORT

For Staff Documentation & Contractor Information

Engineer's Opinion of Probable Cost (OPC)

THIEF RIVER STREAMBANK STABILIZATION PROJECT

(SECTION 24 & 25 EXCEL TWP., SECTION 7 AGDER TWP. MARSHALL CTY) **4/22/2026**

HOUSTON engineering, inc.

Contingency: 0%

Item No.	Item Description	Unit	Qty	Unit Cost	Total Cost
2021.501	MOBILIZATION	LUMP SUM	1	$ 20,000.00	$ 20,000.00
2101.501	CLEARING AND GRUBBING	LUMP SUM	1	$ 20,000.00	$ 20,000.00
2104.503	REMOVE PIPE CULVERTS	LIN. FT.	46	$ 15.00	$ 690.00
2106.507	EXCAVATION - COMMON (P)	CU. YD.	15,777	$ 8.50	$ 134,104.50
2501.502	FLAP GATE FOR 18" CS PIPE	EACH	1	$ 1,100.00	$ 1,100.00
2501.503	18" CS PIPE CULVERT	LIN. FT.	148	$ 55.00	$ 8,140.00
2511.507	RANDOM RIPRAP CLASS II	CU. YD.	10	$ 125.00	$ 1,250.00
2573.502	CULVERT END CONTROLS	EACH	3	$ 50.00	$ 150.00
2573.503	FLOATATION SILT CURTAIN TYPE MOVING WATER	LIN. FT.	300	$ 22.00	$ 6,600.00
2573.503	SEDIMENT CONTROL LOG TYPE STRAW	LIN. FT.	6,070	$ 3.50	$ 21,245.00
2575.501	TURF ESTABLISHMENT	LUMP SUM	1	$ 12,000.00	$ 12,000.00
2575.504	ROLLED EROSION PREVENTION CATEGORY 25	SQ. YD.	14,811	$ 3.00	$ 44,433.67
2577.601	TOE-WOOD DEBRIS	CU. YD.	3,379	$ 45.00	$ 152,055.00
2577.601	SOD MAT	SQ. YD.	1,611	$ 25.00	$ 40,275.00
			Total Construction Cost		**$ 462,043.17**

This opinion of probable cost is approximate. Actual construction bids may vary significantly from this opinion of probable costs due to timing of construction, changed conditions, labor rate changes, or other factors beyond the control of the estimators.

Project Manual
For

Thief River Streambank Stabilization Project

Sec. 24 & 25, Excel Twp., Sec. 7, Agder Twp.

Marshall County, MN

Red Lake Watershed District

Thief River Falls, MN

April, 2026

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Tony A. Nordby, PE
License No. 51392

Date: 4-22-2026

HOUSTON engineering, inc.

125 3rd Street E
Thief River Falls, MN 56701
Phone (218) 681-2951
HE Project No. 3655-0099-006

ADVERTISEMENT FOR BIDS

RED LAKE WATERSHED DISTRICT
THIEF RIVER FALLS, MINNESOTA
Thief River Streambank Stabilization Project
Section 24 & 25, Excel Twp., Sec 7, Agder Twp.
Marshall County, MN

General Notice

Red Lake Watershed District is requesting Bids for the construction of the following Project:

Thief River Streambank Stabilization Project
Section 24 & 25, Excel Twp., Sec 7 Agder Twp., Marshall County

Sealed Bids for the construction of the Project will be received at the **Red Lake Watershed District Office** located at **1000 Pennington Ave. S, Thief River Falls, MN 56701**, until **Thursday May 28, 2026**, at **9:30 AM** local time. At that time the Bids received will be **publicly** opened and read.

The Project includes the following major items and approximate quantities:

Item	Unit	Quantity
Clearing and Grubbing	LUMP SUM	1
Excavation-Common (P)	CY	15,777
Rolled Erosion Prevention Category 25	SY	14,811
Toe-Wood Debris	CY	3,379
Sod Mat	SY	1,611

Additional items and approximate quantities are also included as part of the project.

Construction shall not start prior to **June 16, 2026,** to meet fish spawning requirements in the Thief River. The project shall be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before **October 16, 2026**. Once work begins it shall be performed continuously until the project is completed.

Obtaining the Bidding Documents

A link to the website designated for obtaining Bidding Documents and additional project information can be found at https://www.questcdn.com/auth/login/ under Quest Project #**10172406** for a fee of $22.00. Fees for contract documents are nonrefundable.

The Issuing Office for the Bidding Documents is:

Houston Engineering, Inc.
125 3rd Street East
Thief River Falls, MN 56701
(218) 681-2951

Prospective Bidders may examine the Bidding Documents at the Issuing Office on Monday through Friday between the hours of **8:00 Am – 4:30 PM,** but no purchase will be made available. Partial sets of Bidding Documents will not be available from the Issuing Office.

Instructions to Bidders.

For all further requirements regarding bid submittal, qualifications, procedures, and contract award, refer to the Instructions to Bidders that are included in the Bidding Documents.

This Advertisement is issued by:

Owner: **Red Lake Watershed District**
By: **Tammy Audette**
Title: **Administrator**
Date: **April 22, 2026**

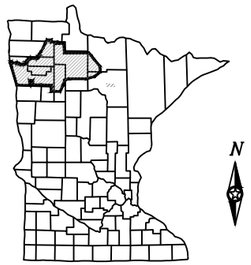
CONSTRUCTION PLANS FOR

RED LAKE WATERSHED DISTRICT

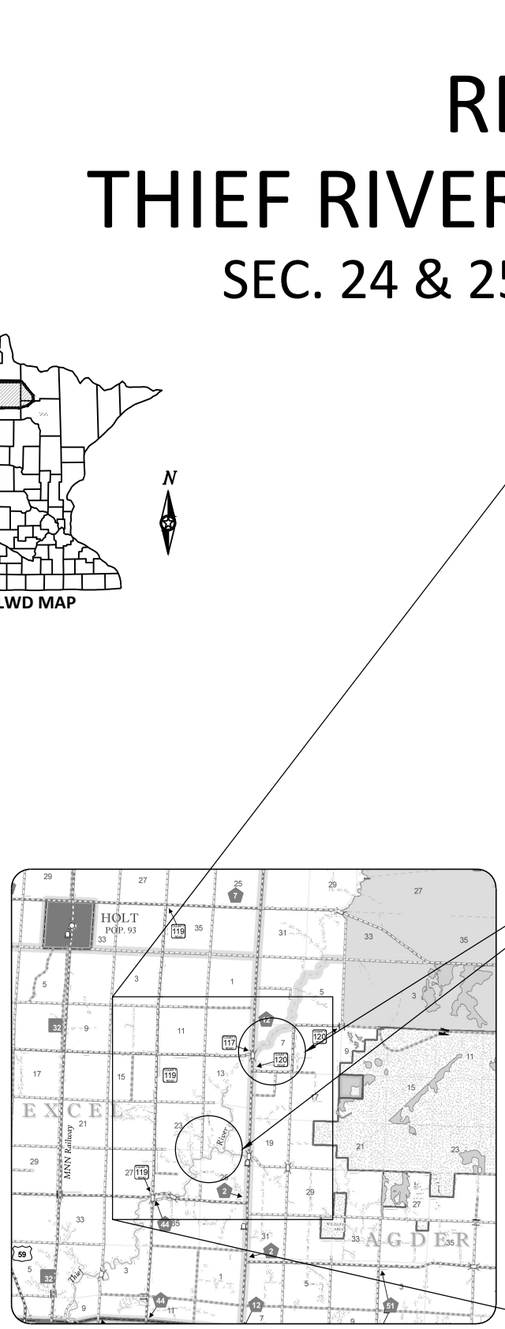
THIEF RIVER STREAM BANK STABILIZATION PROJECT

SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

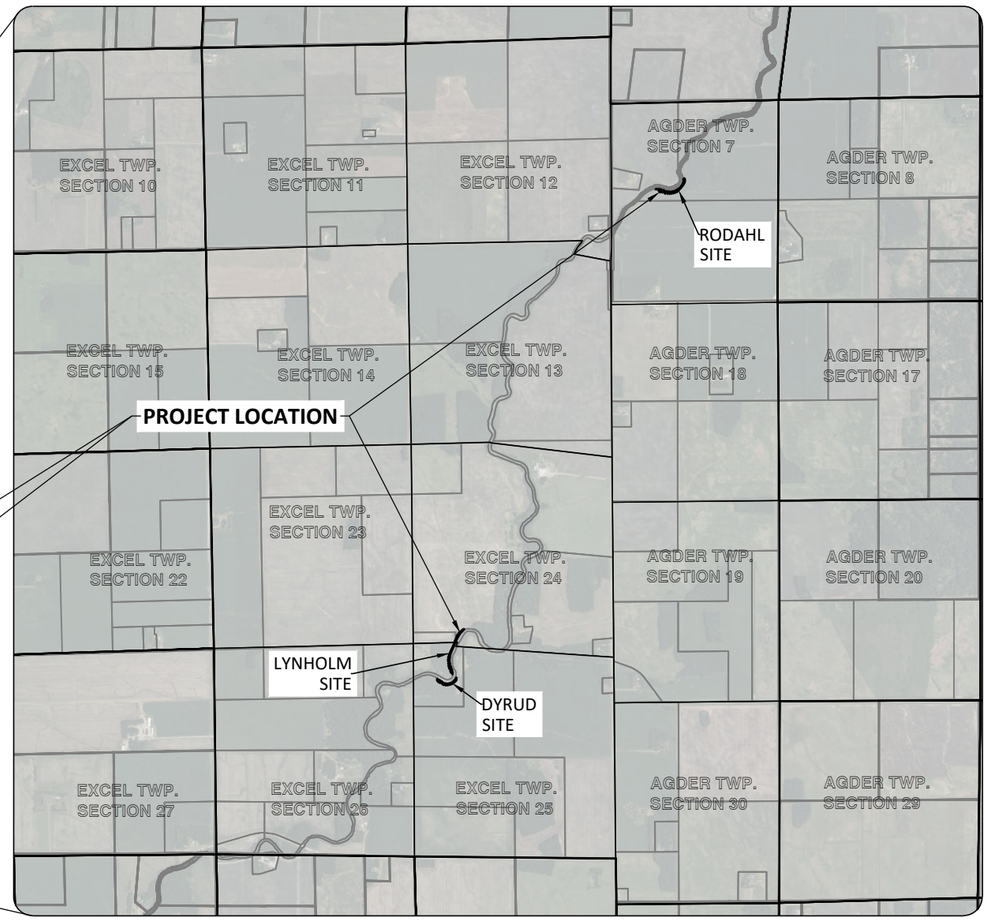
APRIL, 2026



RLWD MAP



VICINITY MAP



LOCATION MAP

HOUSTON engineering, inc.
125 3rd STREET EAST
THIEF RIVER FALLS, MN 56701
P: 218.681.2951
www.houstoneng.com

GOVERNING SPECIFICATIONS:

THE 2025 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" DIVISION II AND III SHALL GOVERN FOR CONSTRUCTION DETAILS AND MATERIALS.

SHEET INDEX:

THIS PLAN CONTAINS 28 SHEETS

UTILITY NOTE:

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION, AS-BUILT MAPS AS PROVIDED BY MUNICIPALITIES OR UTILITY COMPANIES, AND/OR EXISTING DRAWINGS. THERE IS NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN INDICATE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. NOR IS THERE A GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY RESULT FROM THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.

HORIZONTAL AND VERTICAL CONTROLS

1. ALL COORDINATES LISTED IN THIS PLAN ARE MNDOT, MARSHALL COUNTY, U.S. FOOT
2. ALL ELEVATIONS ARE NAVD 88 DATUM

CERTIFICATION

I hearby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.

Signature: Tony A. Nordby

TONY NORDBY

Date: 04-22-2026

License Number: 51392

Project No. 3655-0099-006

ESTIMATED QUANTITIES							
NOTES	ITEM NO.	ITEM	UNIT	LYNHOLM	DYRUD	RODAHL	TOTAL
	2021.501	MOBILIZATION	LUMP SUM	0.5	0.2	0.3	1
7	2101.501	CLEARING AND GRUBBING	LUMP SUM	0.5	0.2	0.3	1
	2104.503	REMOVE PIPE CULVERTS	LIN. FT.	0	0	46	46
1,2	2106.507	EXCAVATION - COMMON (P)	CU. YD.	7783	3741	4253	15,777
	2501.502	FLAP GATE FOR 18" CS PIPE	EACH	0	0	1	1
8	2501.503	18" CS PIPE CULVERT	LIN. FT.	0	80	68	148
6	2511.507	RANDOM RIPRAP CLASS II	CU. YD.	0	5	5	10
	2573.502	CULVERT END CONTROLS	EACH	1	1	1	3
	2573.503	FLOATATION SILT CURTAIN TYPE MOVING WATER	LIN. FT.	100	100	100	300
	2573.503	SEDIMENT CONTROL LOG TYPE STRAW	LIN. FT.	2730	1340	2000	6,070
3	2575.501	TURF ESTABLISHMENT	LUMP SUM	0.5	0.2	0.3	1
5	2575.504	ROLLED EROSION PREVENTION CATEGORY 25	SQ. YD.	6946	3492	4373	14,811
7	2577.601	TOE-WOOD DEBRIS	CU. YD.	1558	722	1099	3,379
	2577.601	SOD MAT	SQ. YD.	736	347	528	1,611

CONSTRUCTION NOTES:

1. (P) DENOTES A PLAN QUANTITY ITEM WITH NO ADDITIONAL COMPENSATION MADE.

2. ITEM NO. 2106.507, "EXCAVATION - COMMON (P)" SHALL INCLUDE ALL EXCAVATION OF ALL MATERIALS ENCOUNTERED TO THE LINE AND GRADE SHOWN IN THE PLANS INCLUDING, ALL EXCAVATION REQUIRED TO PLACE TOE-WOOD DEBRIS AND TOPSOIL SUBCUT WITHIN THE CHANNEL SLOPE. EXCAVATION MATERIAL SHALL BE USED AS FILL MATERIAL WITHIN THE CHANNEL SLOPE, TOE-WOOD INSTALLATION, AND PROPOSED SPOIL AREAS AS SHOWN IN THE PLANS AND CONSIDERED INCIDENTAL. STRIPPING OF 6" OF TOPSOIL UNDER THE PROPOSED SPOIL BANK AREAS AND SPREADING OF 6" OF TOPSOIL OVER THE FINISHED SPOIL BANKS AND SLOPES SHALL BE CONSIDERED INCIDENTAL WITH NO DIRECT MEASUREMENT MADE THEREOF. NO STANDING WATER IS ALLOWED BEYOND THE SPOIL BANKS. LATERAL DRAINAGE SHALL BE PROVIDED BY THE CONTRACTOR TO MAKE SURE LOW SPOTS DRAIN TO THE ADJACENT CULVERT TO PROVIDE DRAINAGE AND SHALL BE CONSIDERED INCIDENTAL WITH NO DIRECT MEASUREMENT MADE THEREOF.

3. ANY DISTURBED VEGETATED AREAS ARE REQUIRED TO BE SEEDED. ALL WORK INCLUDING SOIL PREPARATION, SEED, SEEDING, AND FERTILIZER SHALL BE PAID FOR UNDER ITEM NO 2575.501 "TURF ESTABLISHMENT".

   TURF ESTABLISHMENT TO INCLUDE THE ESTIMATED QUANTITIES AND APPLICATION RATES IN ATTACHED TABLE.

   SEE THE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.

   THE QUANTITY SHOWN IS AN ESTIMATE ONLY FOR AREAS IDENTIFIED FOR TURF ESTABLISHMENT IN THE TYPICAL SECTIONS. FINAL QUANTITY WILL DEPEND ON THE CONTRACTOR'S OPERATION. NO ADJUSTMENT IN UNIT PRICE WILL BE MADE FOR ANY INCREASE OR DECREASE IN THE FINAL AMOUNT. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO KEEP THE DISTURBANCE OF VEGETATED AREAS TO A MINIMUM. ANY DESTROYED VEGETATION ALONG FIELD ACCESS ROUTES AND ROADWAYS ARE NOT INCLUDED UNDER ITEM NO 2575.501 "TURF ESTABLISHMENT".

4. ALL FIELD ACCESS ROUTES AND ROADWAYS ARE REQUIRED TO BE REPAIRED TO A PRE-CONSTRUCTION STATE. RESTORATION SHALL INCLUDE SEEDING IF VEGETATION IS DESTROYED AND BE CONSIDERED INCIDENTAL WITH NO ADDITIONAL PAYMENT MADE THEREOF.

5. ROLLED EROSION PREVENTION CATEGORY 25 SHALL BE INSTALLED ON AREAS AS OUTLINED ON THE PLAN AND PROFILE SHEETS. AT THE DISCRETION OF THE ENGINEER, THIS BID ITEM COULD BE REPLACED FOR MULCH TYPE 1 AND DISK ANCHORING THROUGH A CHANGE ORDER PENDING CONSTRUCTION TIMING.

6. GEOTEXTILE FABRIC, TYPE 3 SHALL BE PLACED UNDER ALL RANDOM RIPRAP CLASS II AND BE CONSIDERED INCIDENTAL AND NO ADDITIONAL PAYMENT WILL BE MADE THEREOF.

7. ITEM NO. 2101.501, "CLEARING AND GRUBBING" SHALL BE COMPLETED ONLY WITHIN THE CONSTRUCTION LIMITS. ALL SUITABLE MATERIAL FROM THE CLEARING AND GRUBBING SHALL BE USED FOR TOE-WOOD INSTALLATION AND ALSO PAID FOR UNDER THAT BID ITEM. ADDITIONAL CLEARING AND GRUBBING FOR MATERIAL TO COMPLETE THE TOE-WOOD DEBRIS CONSTRUCTION OUTSIDE OF THE PROPOSED CONSTRUCTION LIMITS SHALL ONLY BE WITH THE APPROVAL OF THE ENGINEER.

8. ITEM NO. 2501.503, "18" CS PIPE CULVERT" SHALL INCLUDE ALL EXCAVATION AND BACKFILL OF MATERIALS TO PLACE 18" CS PIPE CULVERTS. EXCAVATION MATERIAL SHALL BE USED AS BACKFILL MATERIAL AND CONSIDERED INCIDENTAL WITH NO ADDITIONAL PAYMENT MADE THEREOF.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR APPLYING AND PAYING FOR THE CONSTRUCTION STORMWATER GENERAL PERMIT APPLICATION WITH NO DIRECT PAYMENT MADE THEREOF AND SHALL RECEIVE THE MPCA CONSTRUCTION STORMWATER GENERAL PERMIT PRIOR TO STARTING ANY WORK.

BASIS OF ESTIMATED QUANTITIES	
SEED MESIC INSLOPE	65 LB/ACRE
FERTILIZER TYPE 1, 20-10-20	250 LB/ACRE

TURF ESTABLISHMENT ESTIMATES (NOTE 3)					
ITEM	UNIT	LYNHOLM	DYRUD	RODAHL	QUANTITY
SEEDING AREA	ACRES	1.92	1.02	1.24	4.2
SEED MESIC INSLOPE	LBS	125.0	66.6	80.4	272.0
FERTILIZER TYPE 1, 20-10-20	LBS	480.8	256.1	309.4	1046.3

No.	Revision	Date	By

I hearby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.

Signature: Tony A. Nordby — Date: 04-22-2026

TONY A. NORDBY — License Number: 51392

HOUSTON engineering, inc.

Drawn by	Date
BLS	04-22-2026
Checked by	Scale
TAN	AS SHOWN

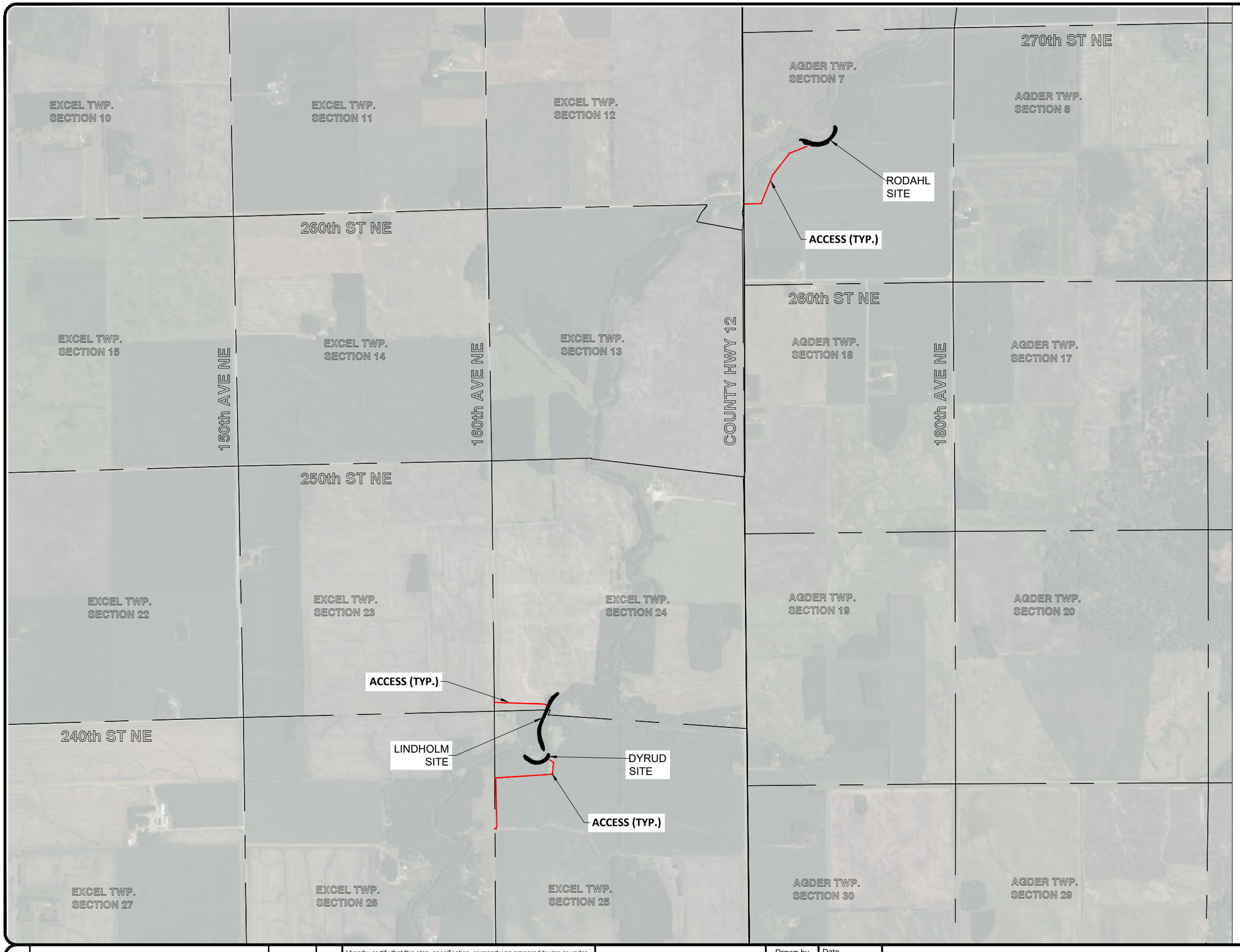
THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

SEQ

PROJECT NO. 3655-0099-006

SHEET 2

HEI NO. 3655-0099-006



H:\JBN\3600\3655\3655-0099 Thief River SD 83 Streambank Stab 2020\3655-0099-006\CADPlans\3655-0099-006-SiteMap.dwg-SITE MAP-4/22/2026 11:48 AM-(bsteinhauer)

No.	Revision	Date	By

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Signature: TONY A. NORDBY Date: 04-22-2026 License Number: 51392

HOUSTON engineering, inc.

Drawn by	Date
BLS	04-22-2026
Checked by	Scale
TAN	AS SHOWN

THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

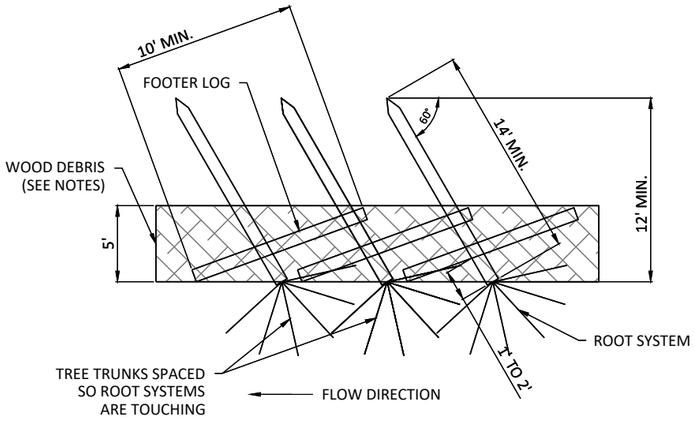
SITE MAP

PROJECT NO. 3655-0099-006

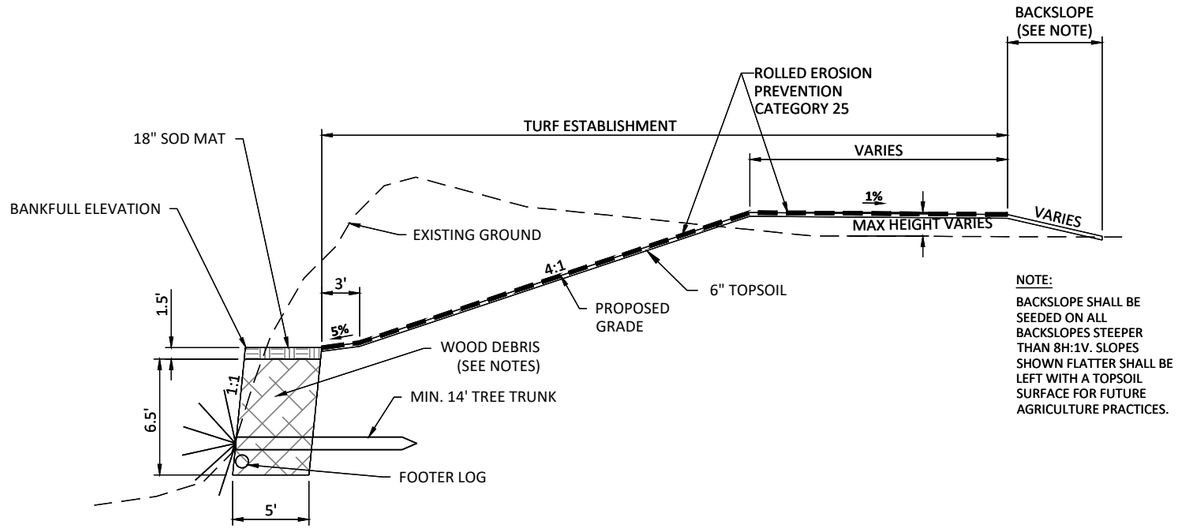
SHEET 3

HEI NO. 3655-0099-006

NOTE:
TREE TRUNKS USED FOR ROOT SYSTEM AND FOOTER LOGS SHALL HAVE A MINIMUM 10" DIAMETER.

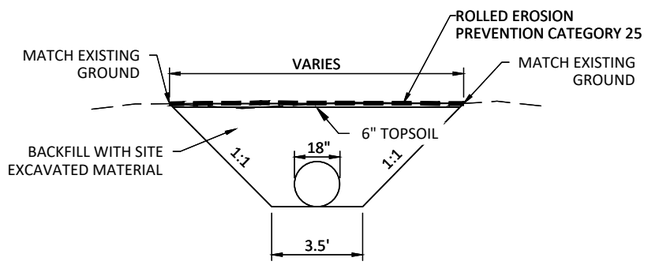


TOE-WOOD TYPICAL PLAN VIEW
NOT TO SCALE

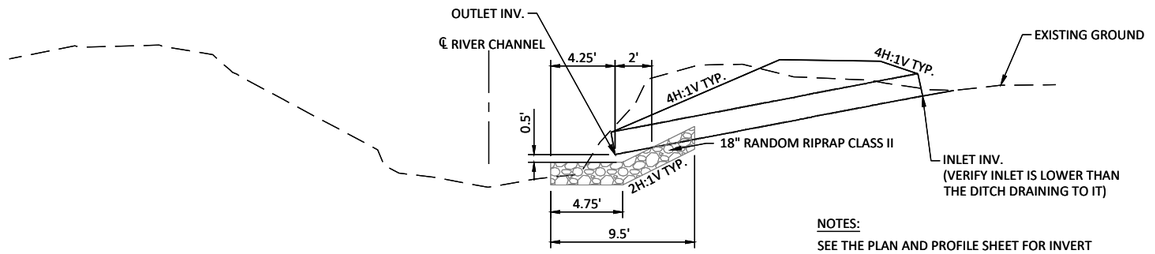


TOE-WOOD AND 18" SOD MAT TYPICAL SECTION VIEW
NOT TO SCALE

NOTE:
BACKSLOPE SHALL BE SEEDED ON ALL BACKSLOPES STEEPER THAN 8H:1V. SLOPES SHOWN FLATTER SHALL BE LEFT WITH A TOPSOIL SURFACE FOR FUTURE AGRICULTURE PRACTICES.



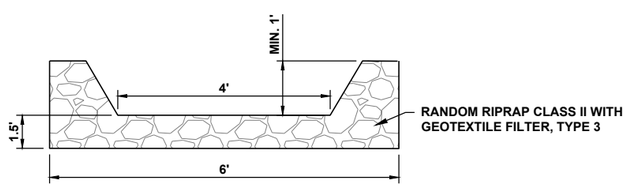
CULVERT TYPICAL SECTION VIEW
NOT TO SCALE



SIDE WATER INLET TYPICAL SECTION VIEW
NOT TO SCALE

NOTES:
SEE THE PLAN AND PROFILE SHEET FOR INVERT INFORMATION.

ALL INVERTS SHALL BE FIELD VERIFIED BY THE ENGINEER.



RIPRAP CROSS SECTION AT CULVERT OUTLET
NOT TO SCALE

NOTES:

1. THE WOOD DEBRIS PORTION OF THE TOE-WOOD INSTALLATION IS TO BE INSTALLED 5 FT WIDE BY 6.5' DEPTH BELOW 18" SOD MAT.
2. TOE-WOOD SHALL CONSIST OF TREE ROOT SYSTEMS WITH A 14'-20' PORTION OF THE TRUNK STILL ATTACHED. THE TRUNK SHALL HAVE A MINIMUM 10" DIAMETER. THE ROOT SYSTEMS SHALL BE PLACED SO THAT THEY ARE TOUCHING. THE BOTTOM OF THE ROOT SYSTEM SHALL BE INSTALLED ON TOP OF THE FOOTER LOGS AS SHOWN IN THE DETAIL.
3. ADDITIONAL WOOD DEBRIS IS REQUIRED TO RAISE 5 FOOT WIDE BY A VARYING DEPTH BENCH TO SPECIFIED ELEVATION. ACCEPTABLE DEBRIS CONSISTS OF ANY WOOD MATERIAL THAT HAS SUFFICIENT LIMBS TO LINK TO TREE ROOTS/OTHER DEBRIS.
4. ACCEPTABLE WOOD DEBRIS SHALL BE DETERMINED BY THE ENGINEER OR FIELD REPRESENTATIVE. TOPSOIL FILL SHALL BE ADDED AT THE DISCRETION OF THE FIELD ENGINEER TO FILL VOID AREAS.
5. COMPACTION OF WOOD DEBRIS IS REQUIRED. SUFFICIENT COMPACTION SHALL BE DETERMINED BY THE ENGINEER OR FIELD REPRESENTATIVE.
6. SOD MAT SHALL CONSIST OF SUFFICIENT PLANT GROWTH TO BIND THE SOD MAT TOGETHER. SOD MATS CONTAINING WILLOWS AND/OR DENSE STANDS OF GRASSES ARE CONSIDERED IDEAL. ACCEPTABLE SOD MATERIAL SHALL BE DETERMINED BY ENGINEER OR FIELD REPRESENTATIVE. ON SITE SOD SHALL BE SALVAGED FOR SOD MAT MATERIAL PRIOR TO TOPSOIL STRIPPING AND CLEARING AND GRUBBING ACTIVITIES.
7. ENGINEER TO STAKE LIMITS OF TOE-WOOD DEBRIS BENCH.
8. TOE-WOOD DEBRIS INCLUDES PLACEMENT OF TOE-WOOD DEBRIS AND TOPSOIL FILL. ADDITIONAL TOE-WOOD DEBRIS NEEDED TO COMPLETE THE BIOENGINEERING INSTALLATION SHALL ONLY BE PAID FOR UNDER ITEM NO. 2577.601, "TOE-WOOD DEBRIS".

No.	Revision	Date	By

I hearby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.
Signature: Tony A. Nordby
TONY A. NORDBY
Date: 04-22-2026
License Number: 51392

HOUSTON engineering, inc.

Drawn by	Date
BLS	04-22-2026
Checked by	Scale
TAN	AS SHOWN

THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

TYPICAL SECTIONS
PROJECT NO. 3655-0099-006

SHEET 4

HEI NO. 3655-0099-006

Toe Wood-Sod Mat: Construction Examples

Spruce Creek

Unstable bank encroaching on a picnic shelter. Toe of bank is eroding causing slumping and stream is overwide.

Construction of bankfull bench. A layer of woody debris and fill was placed along the bank toe then covered with live willow cuttings (in foreground).

Collection of local dogwood and willow sod mats with very dense root mats.

Placement of final layer of sod mats on the constructed bench at bankfull elevation.

Finished bank stabilization project: Vegetated bankfull bench and a graded streambank protected with erosion control blankets.

Buffalo River

Unstable bank and failing flood control dike protecting a mobile home park. The project started with the placement of woody debris and insertion of root wads.

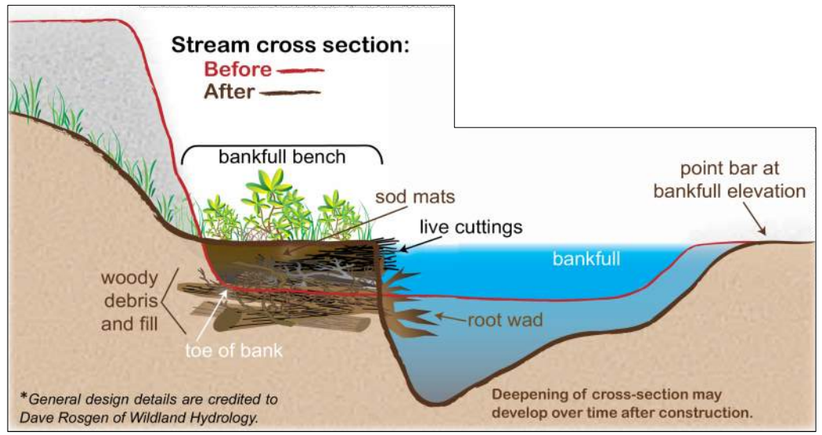
The completed woody debris layer with incorporated root wads. The upper bank was regraded with a more gentle slope.

Dirt was added as fill and rooting material to the woody debris layer.

Locally collected red-osier dogwood and willow sod mats were placed on the constructed bench at bankfull elevation.

Project was completed with a vegetated bankfull bench and a re-graded upper bank seeded with native seed mix. New growth was thriving the next summer.

Toe Wood-Sod Mat Factsheet
December 2010



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TONY A. NORDBY
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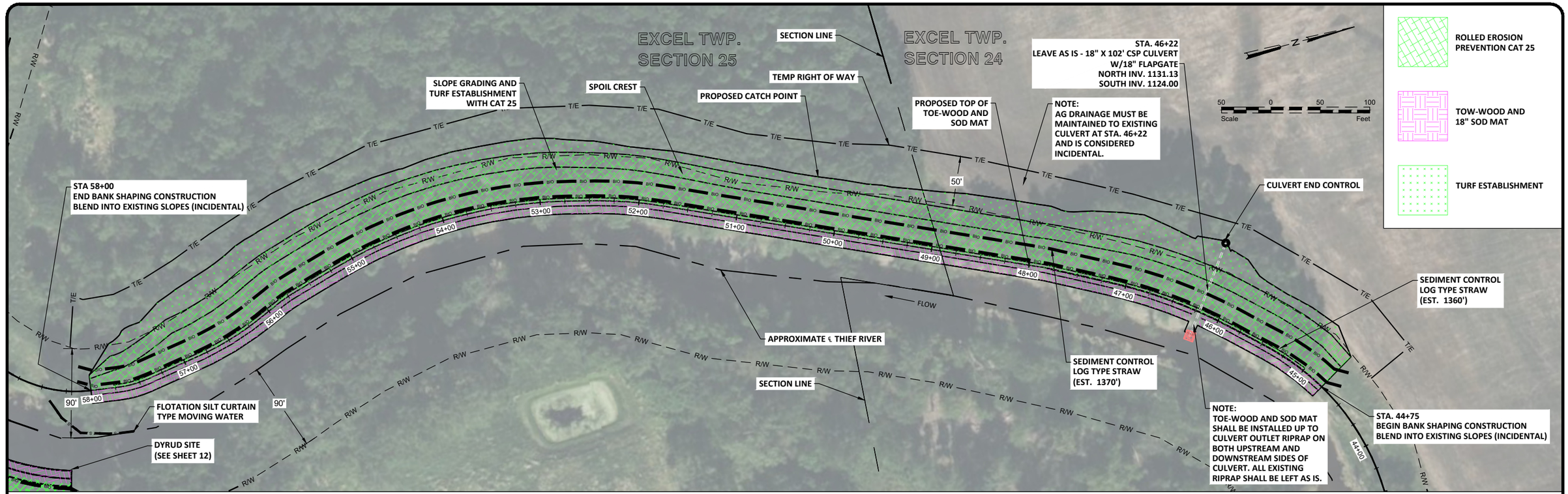
TAN	AS SHOWN

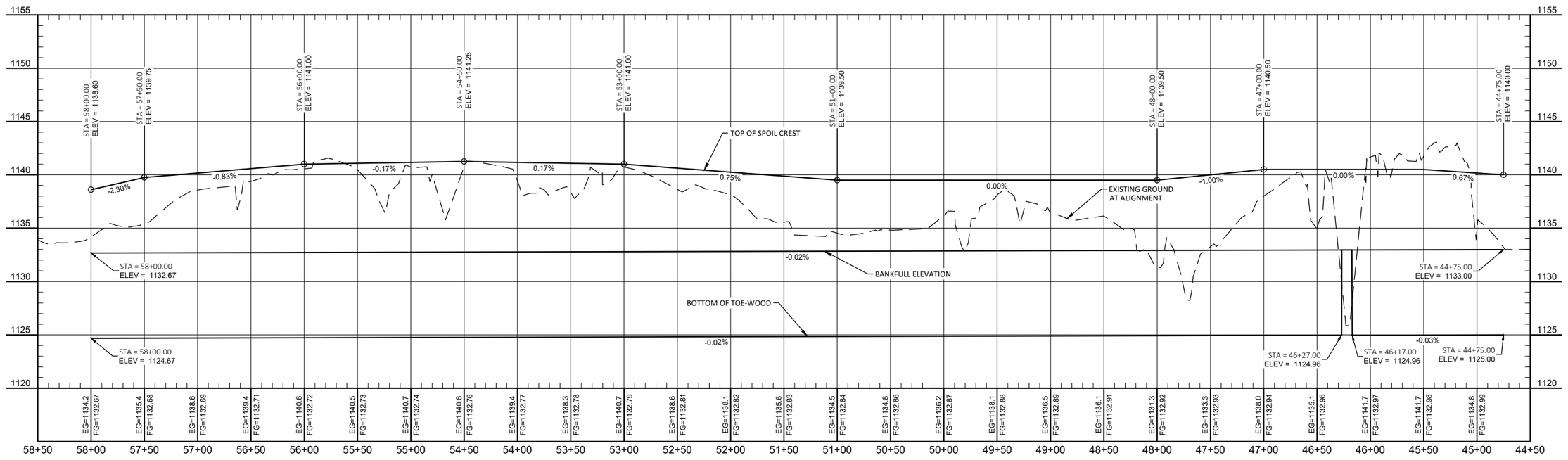
THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

TOE-WOOD EXAMPLE
PROJECT NO. 3655-0099-006

SHEET 5

HEI NO. 3655-0099-006





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TONY NORDBY

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TAN	AS SHOWN

THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

LYNHOLM P&P

PROJECT NO. 3655-0099-006

SHEET 6

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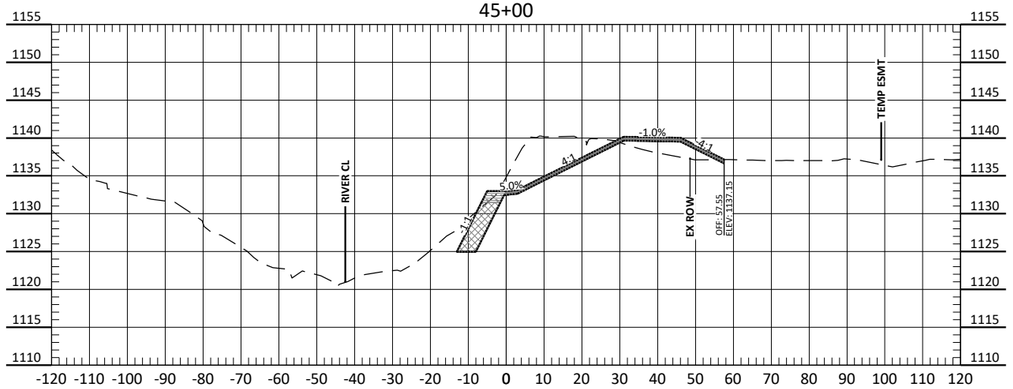
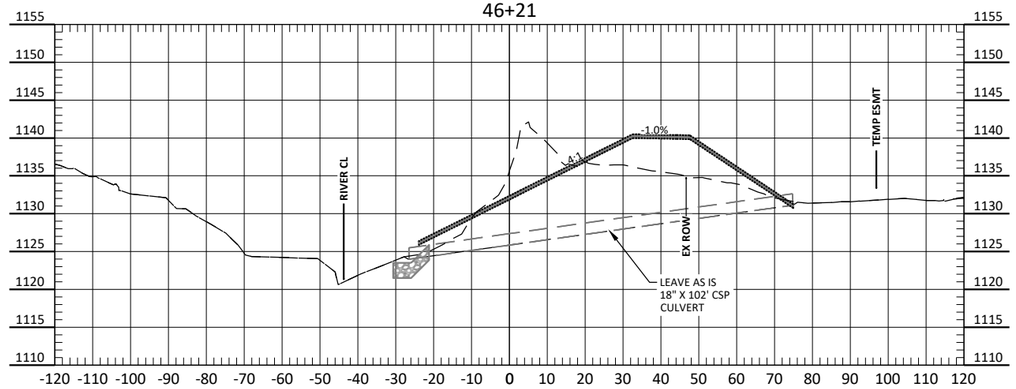
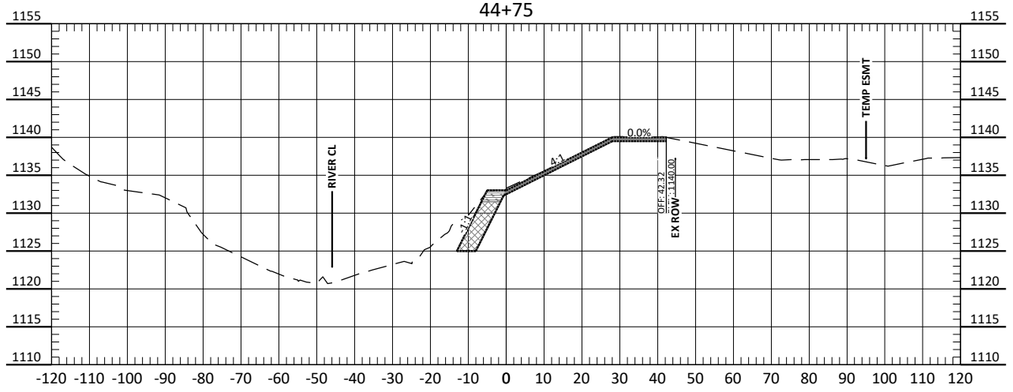
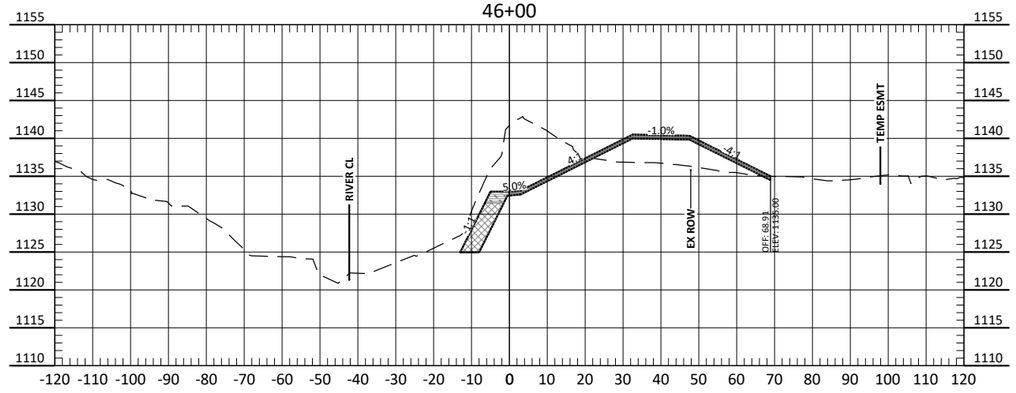
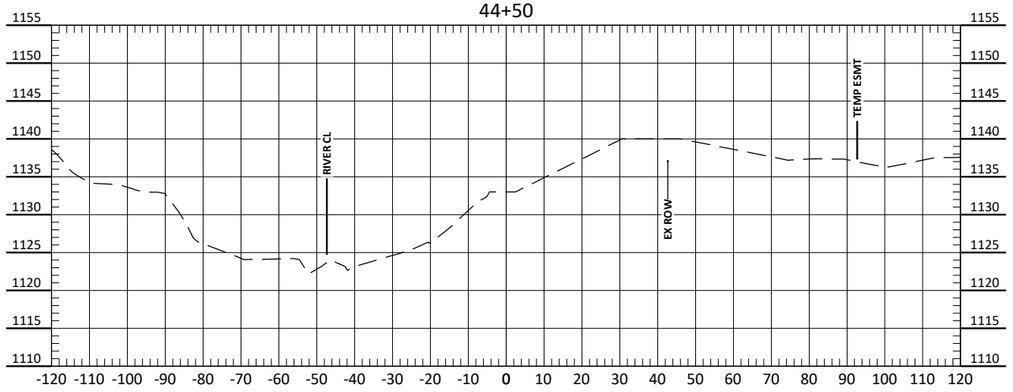
HEI NO. 3655-0099-006

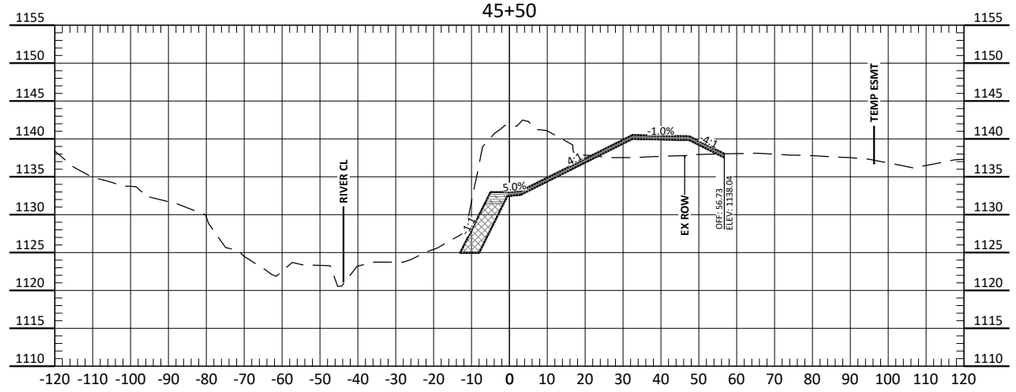












No.	Revision	Date	By

HOUSTON engineering, inc.

Drawn by	Date
BLS	04-22-2026
Checked by	Scale
TAN	AS SHOWN

THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

LYNHOLM XS1

PROJECT NO. 3655-0099-006

SHEET 7

HEI NO. 3655-0099-006

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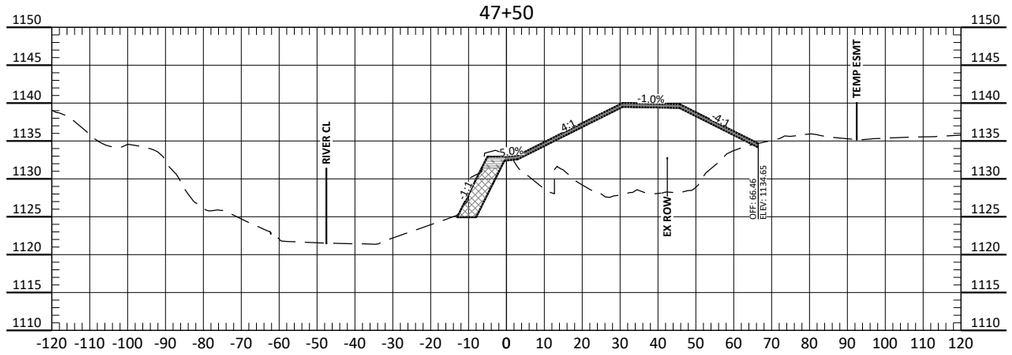
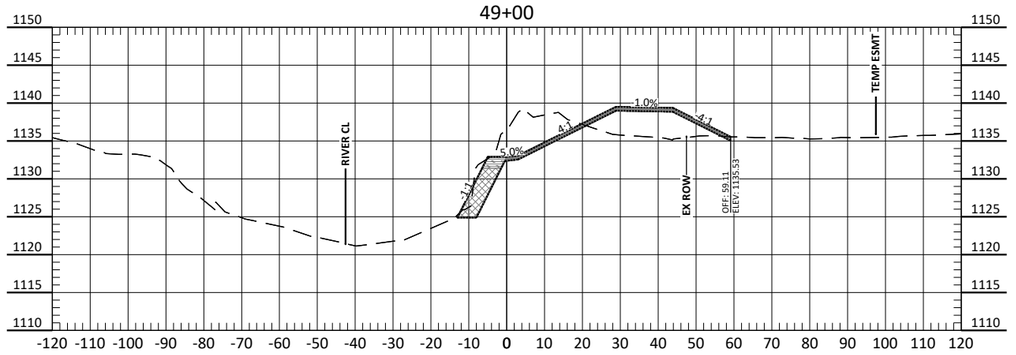
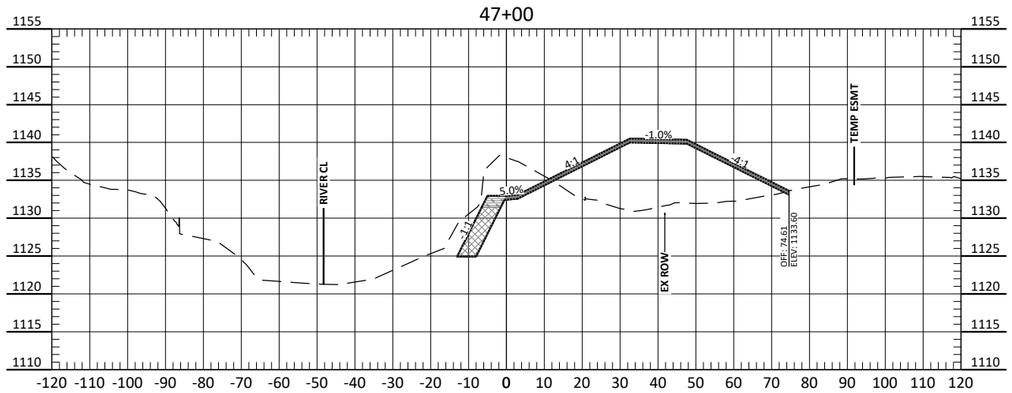
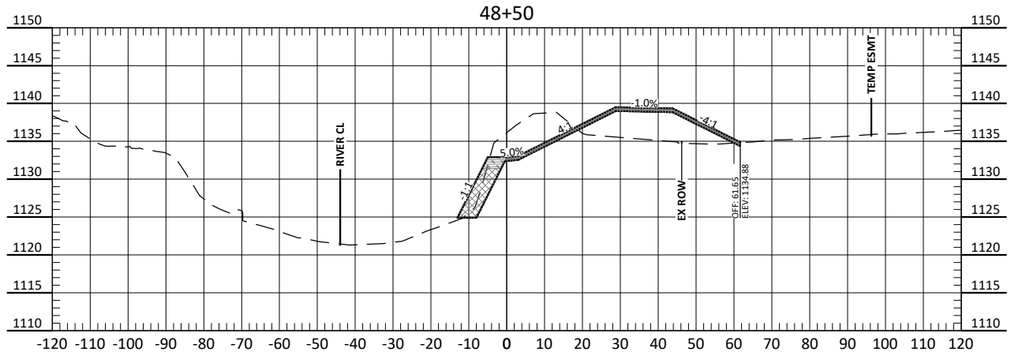
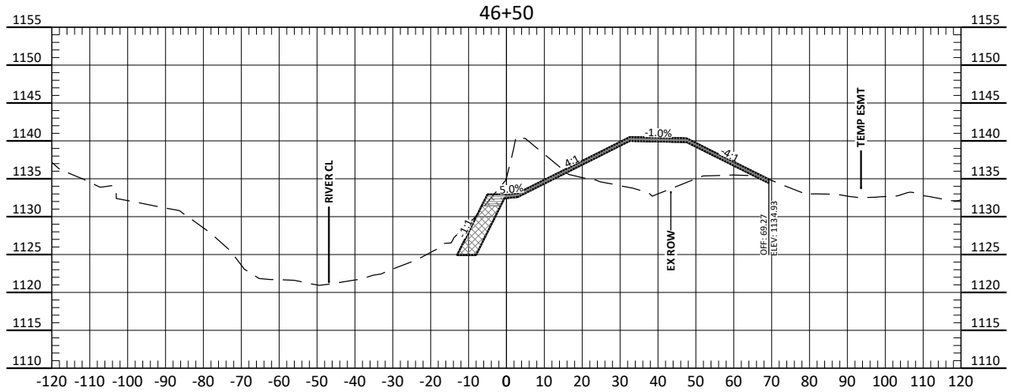
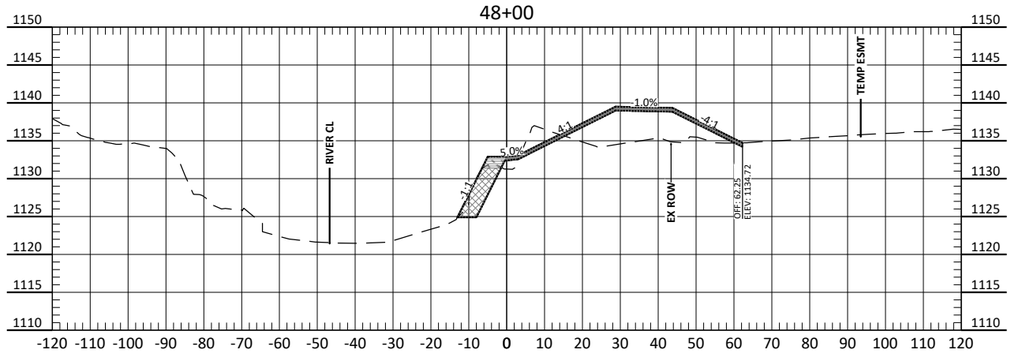












No.	Revision	Date	By

HOUSTON engineering, inc.

Drawn by	Date
BLS	04-22-2026
Checked by	Scale
TAN	AS SHOWN

THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

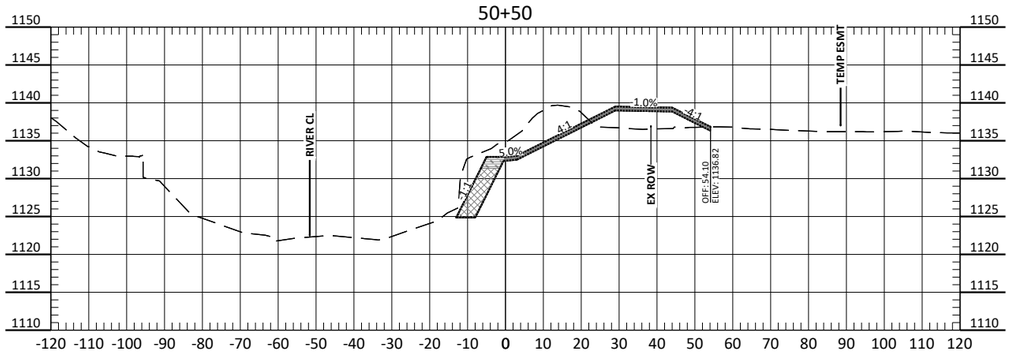
LYNHOLM XS2

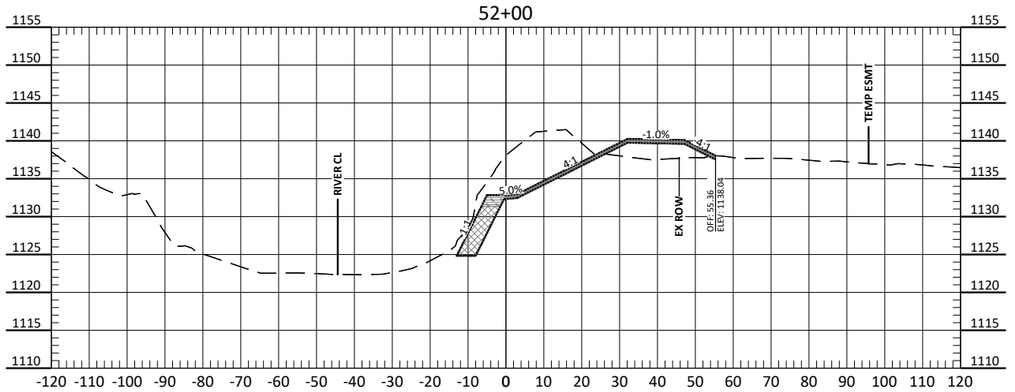
PROJECT NO. 3655-0099-006

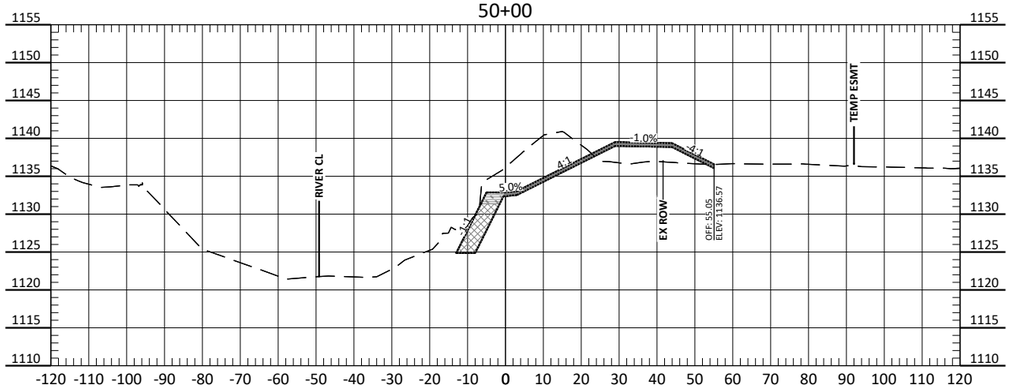
SHEET 8

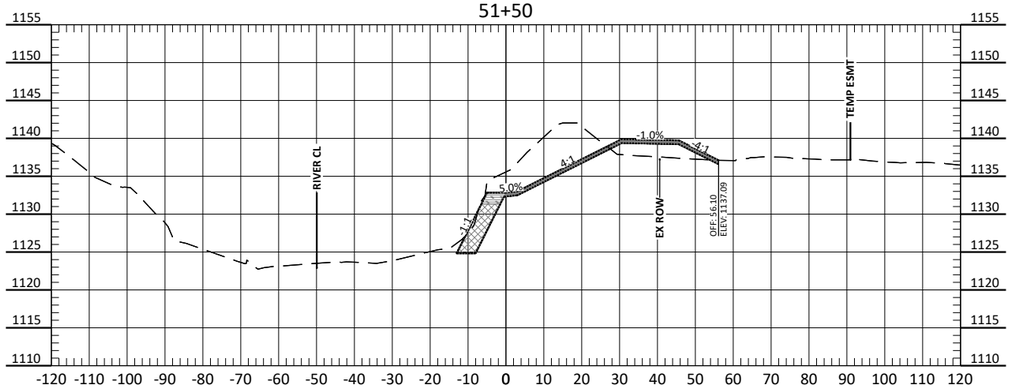
HEI NO. 3655-0099-006

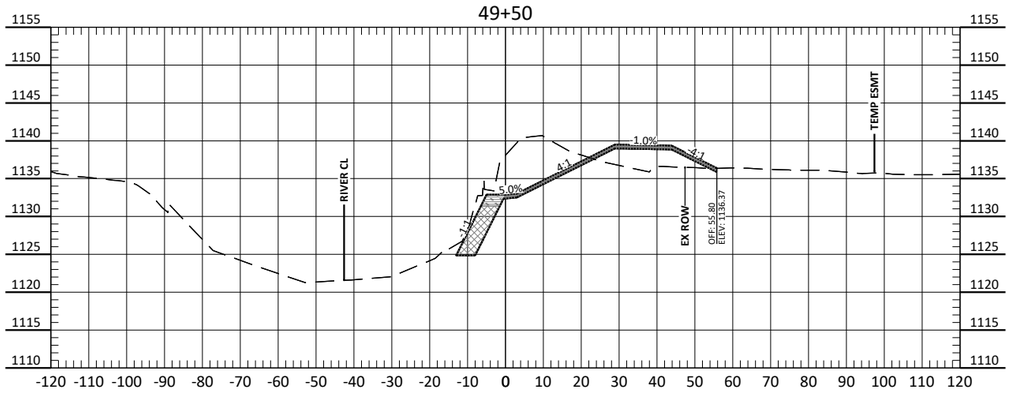
H:\JBN\3600\3655\3655-0099 Thief River SD 83 Streambank Stab 2020\3655-0099-006\CAD\Plans\3655-0099-006_XS.dwg-Lynholm_XS2-4/22/2026 11:49 AM-(bsteinhauer)

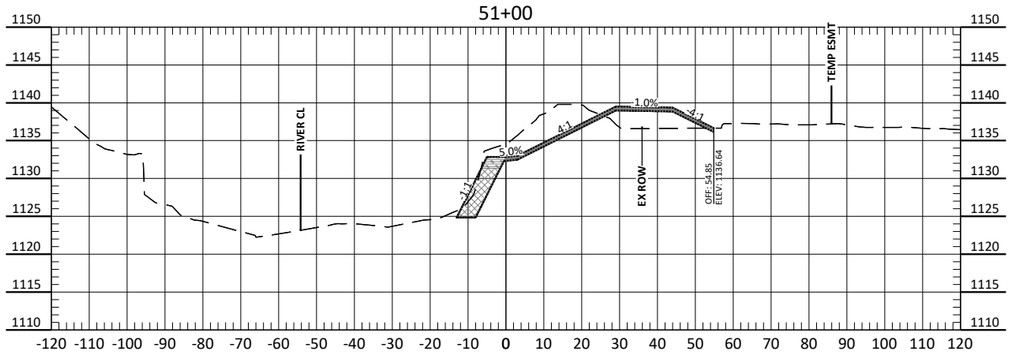












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No.	Revision	Date	By

HOUSTON engineering, inc.

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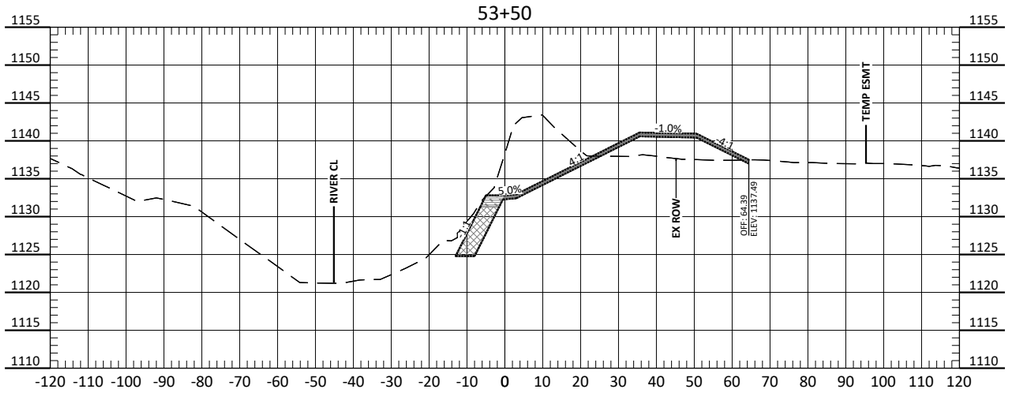
THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

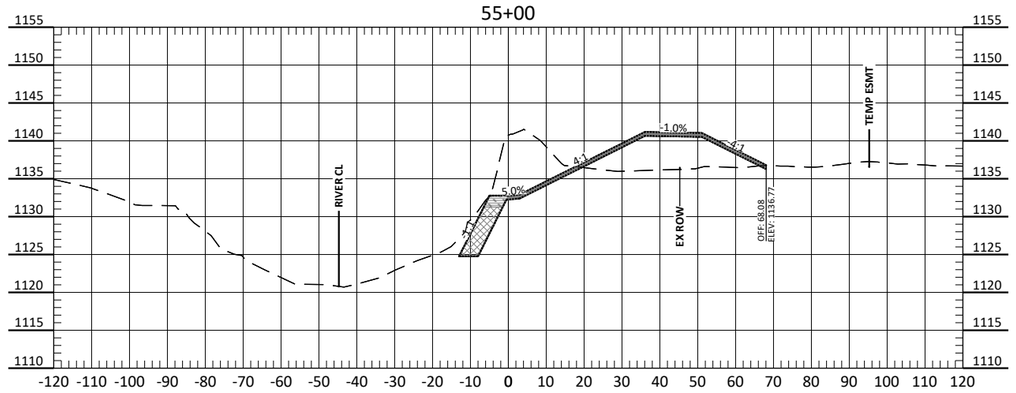
LYNHOLM XS3

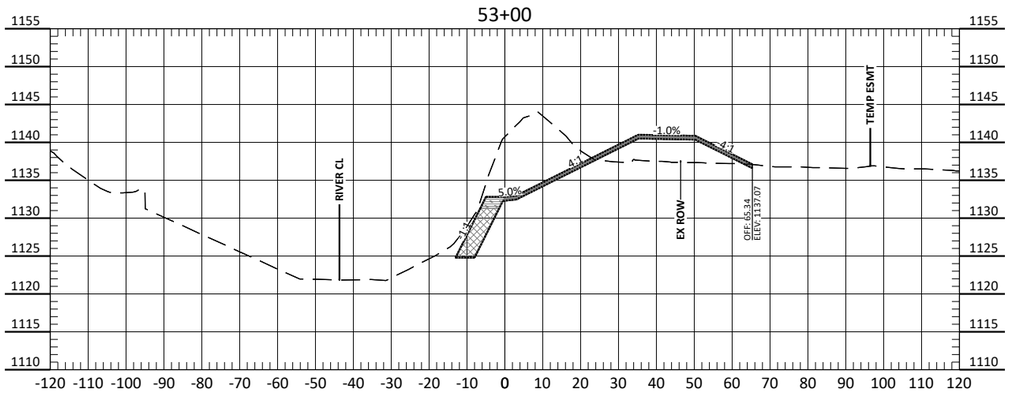
PROJECT NO. 3655-0099-006

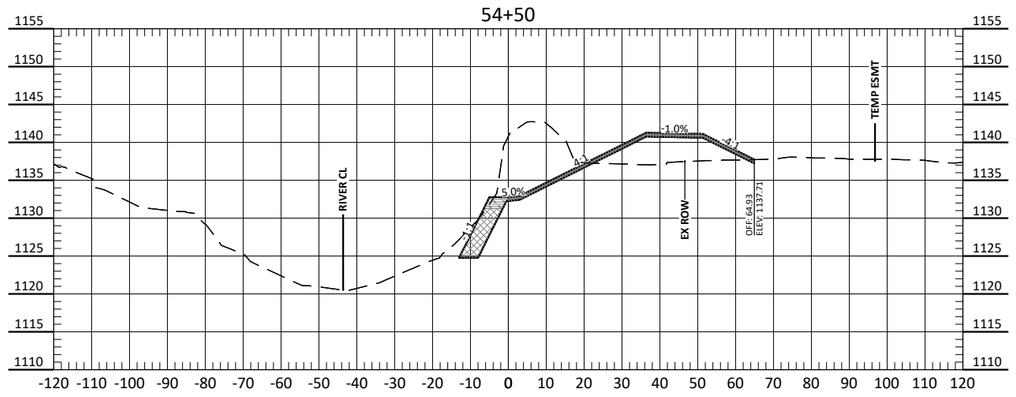
SHEET 9

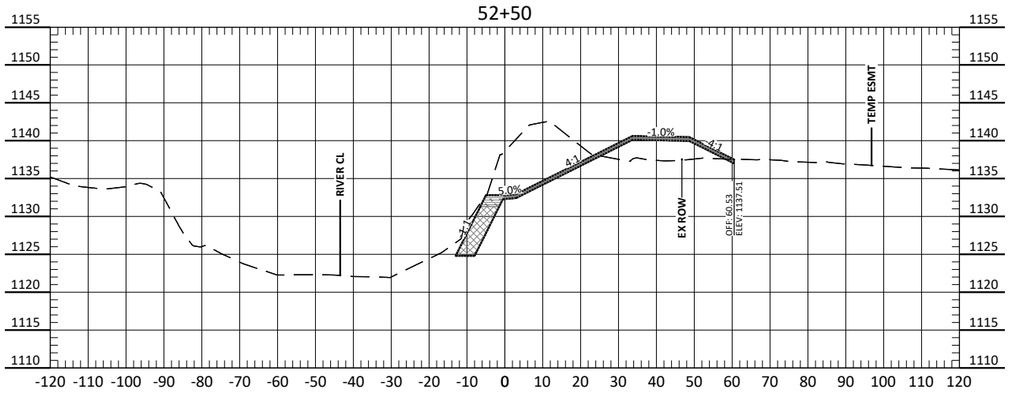
HEI NO. 3655-0099-006

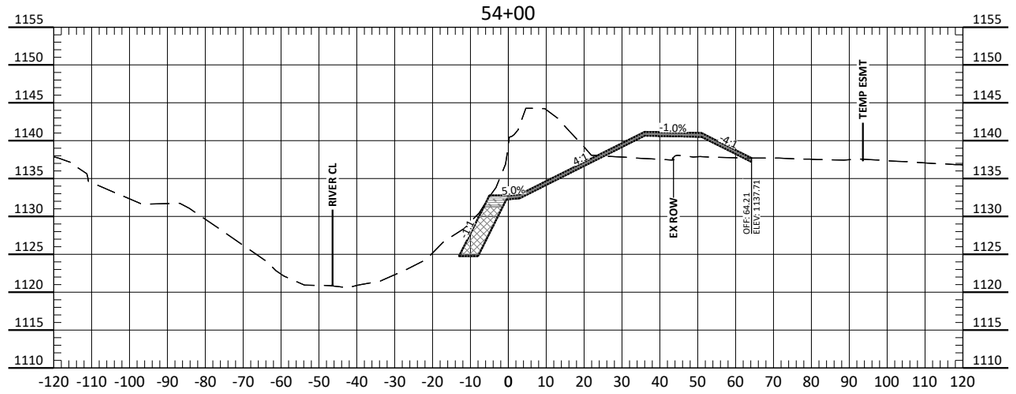












No.	Revision	Date	By

HOUSTON engineering, inc.

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THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

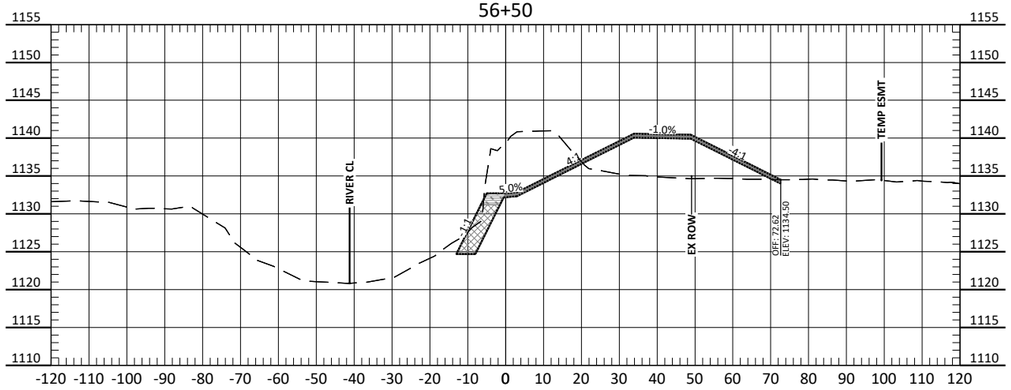
LYNHOLM XS4

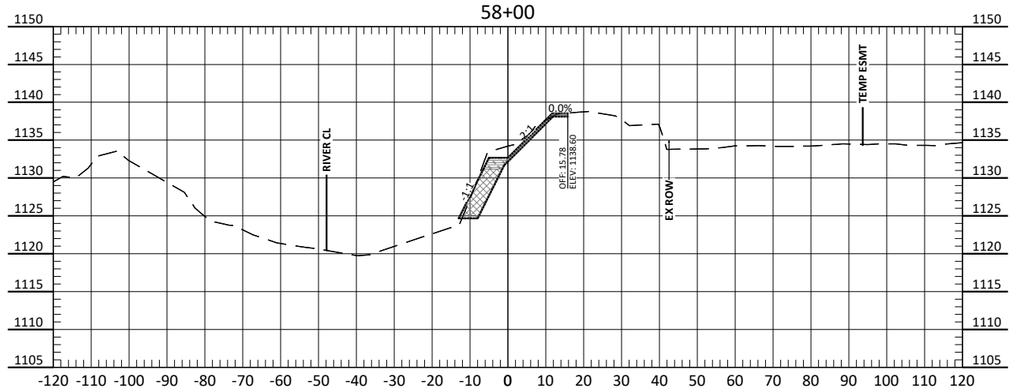
PROJECT NO. 3655-0099-006

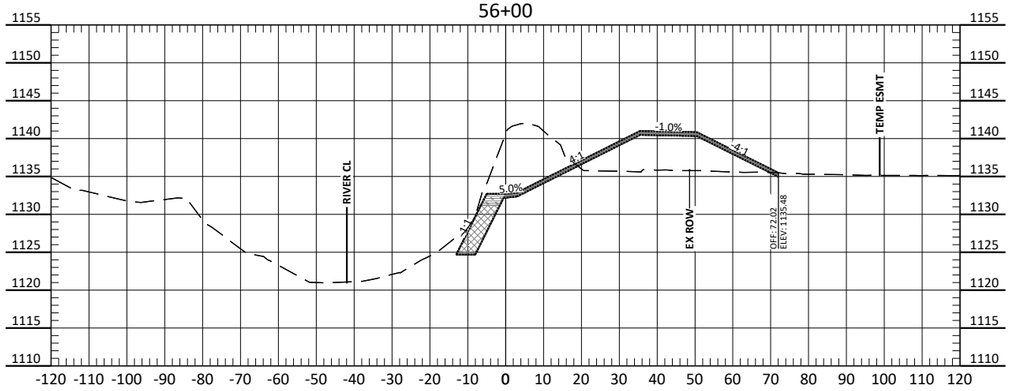
SHEET 10

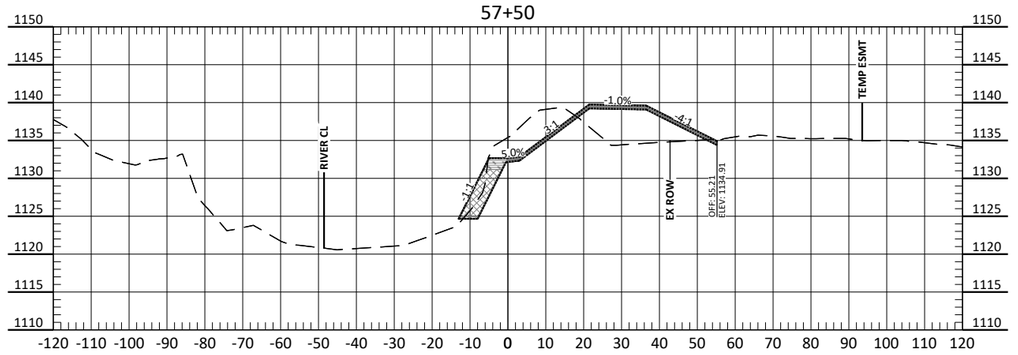
HEI NO. 3655-0099-006

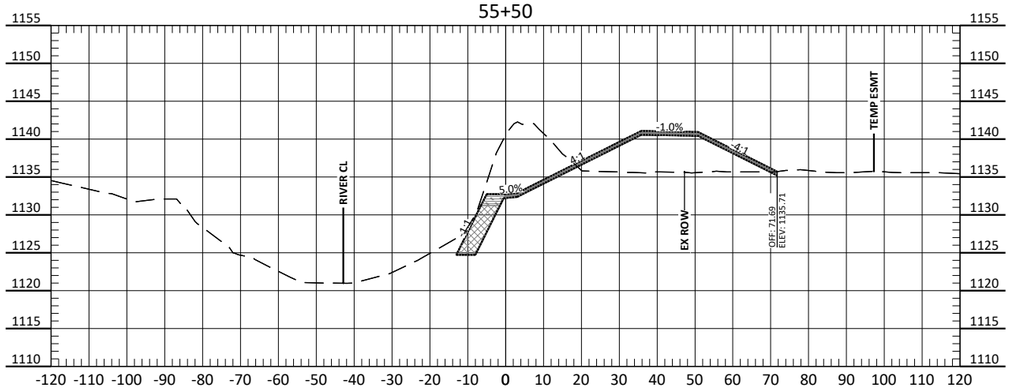
H:\JBN\3600\3655\3655-0099 Thief River SD 83 Streambank Stab 2020\3655-0099-006\CAD\Plans\3655-0099-006_XS.dwg-Lynholm_XS4-4/22/2026 11:49 AM-(bsteinhauer)

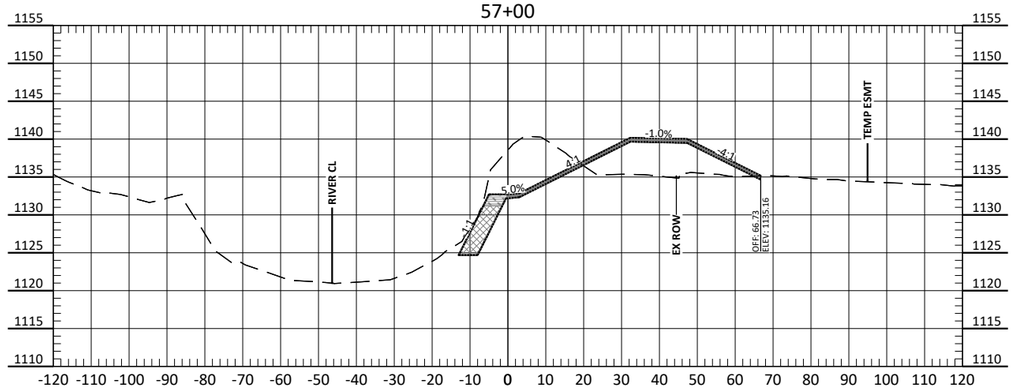












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No.	Revision	Date	By

HOUSTON engineering, inc.

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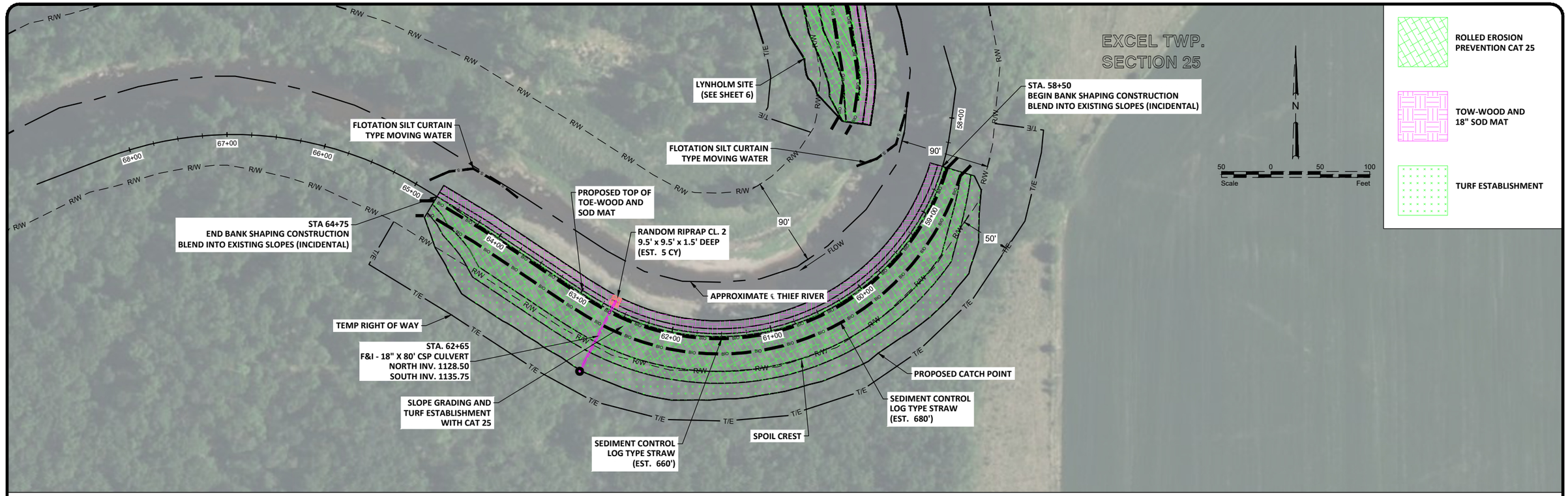
THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

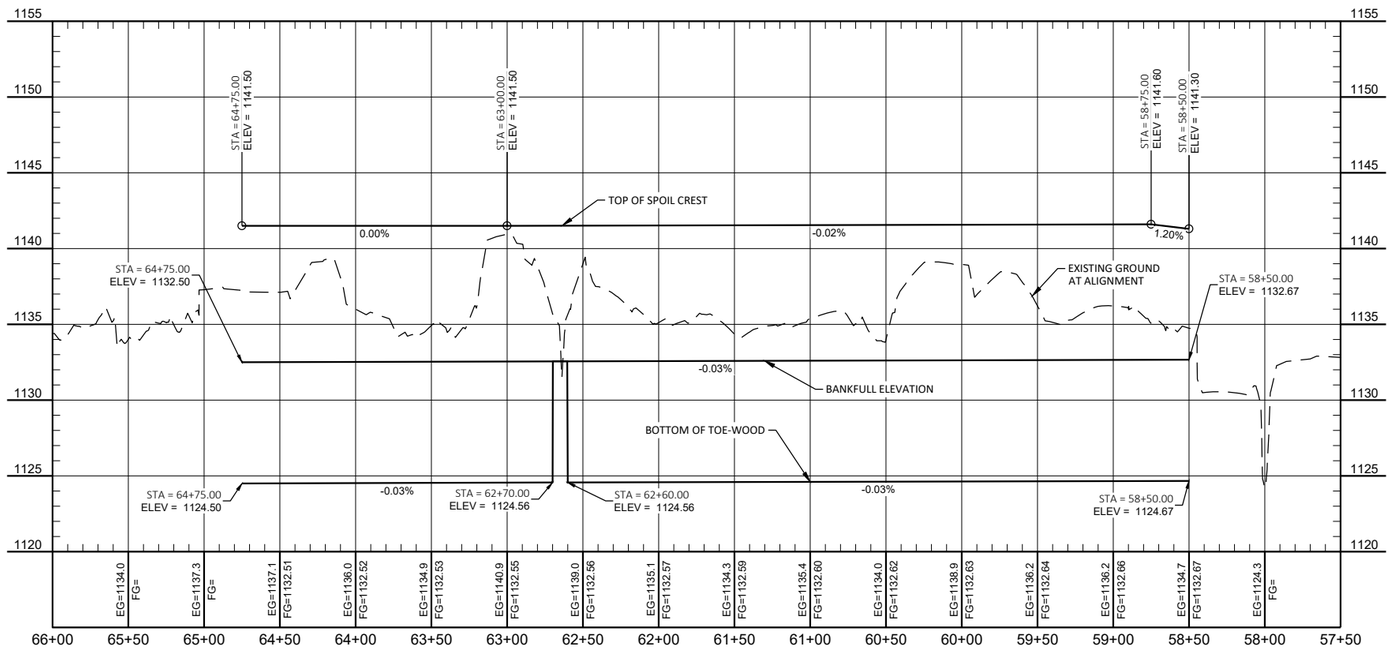
LYNHOLM XS5

PROJECT NO. 3655-0099-006

SHEET 11

HEI NO. 3655-0099-006





No.	Revision	Date	By

I hearby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.

Signature: Tony A. Nordby

TONY NORDBY

Date: 04-22-2026

License Number: 51392

HOUSTON engineering, inc.

Drawn by	Date
BLS	04-22-2026
Checked by	Scale
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THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

DYRUD P&P

PROJECT NO. 3655-0099-006

SHEET 12

HEI NO. 3655-0099-006

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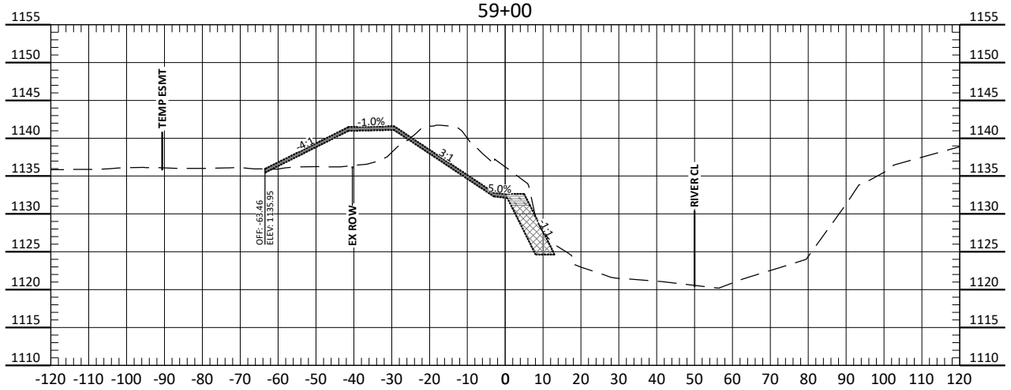

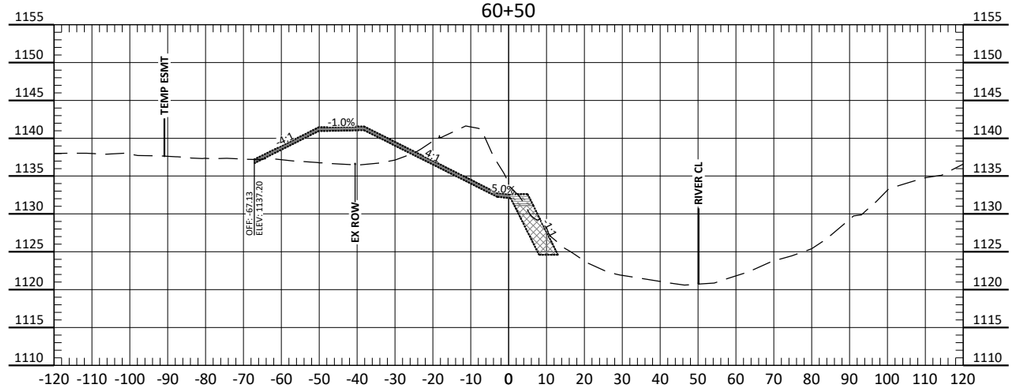

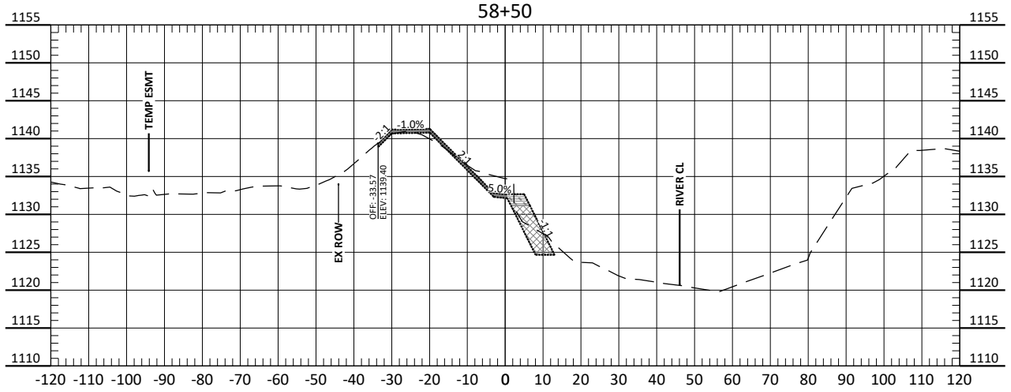

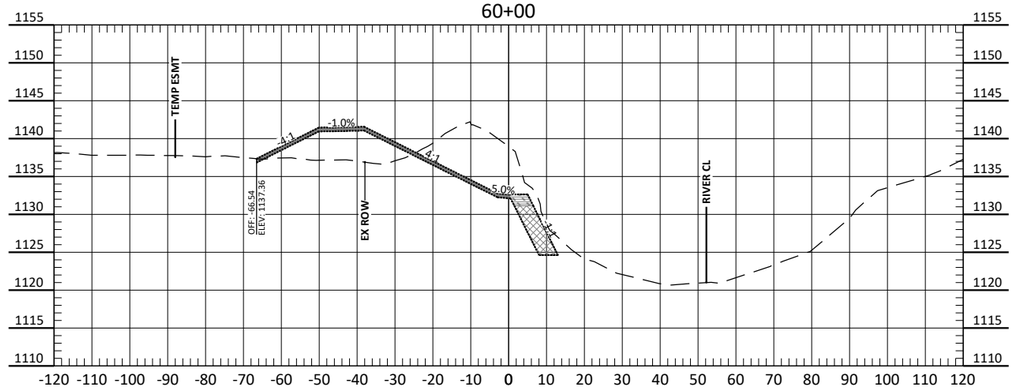

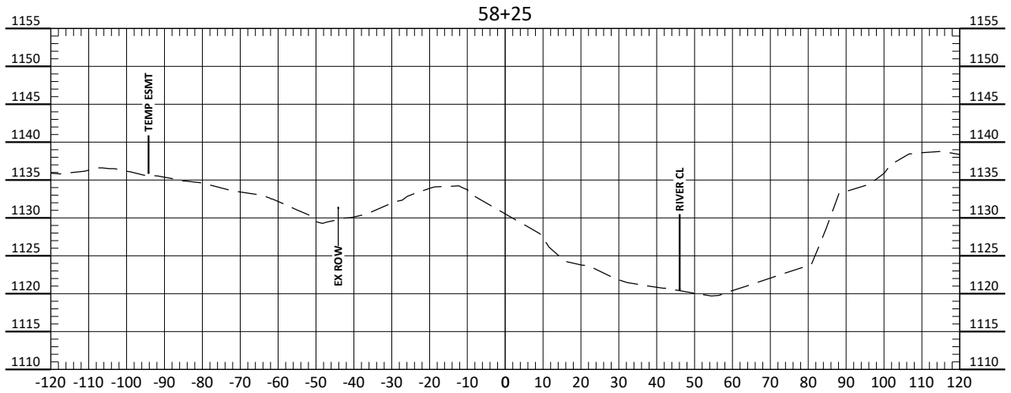

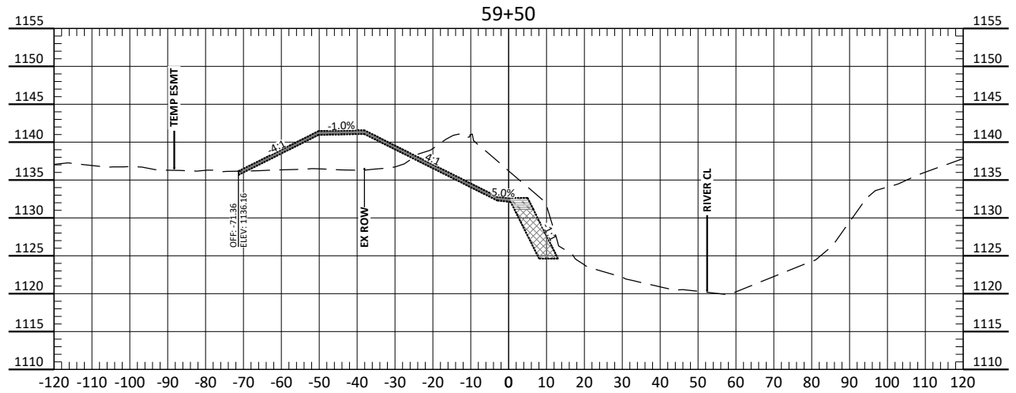

No.	Revision	Date	By

HOUSTON engineering, inc.

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THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

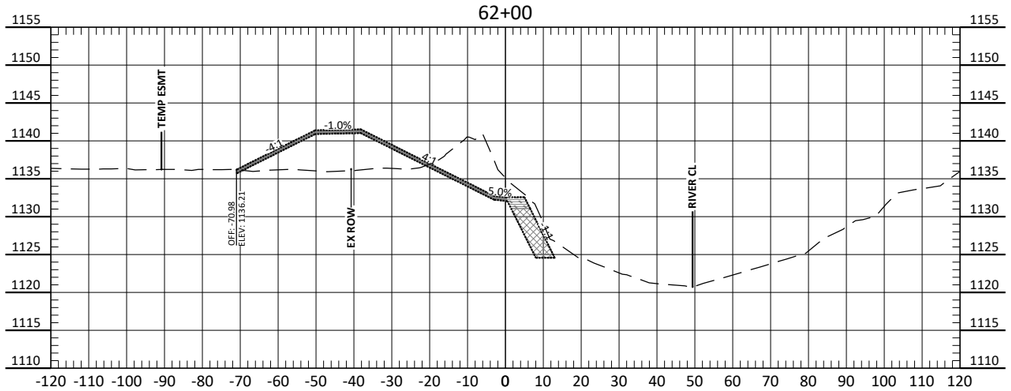
DYRUD XS1

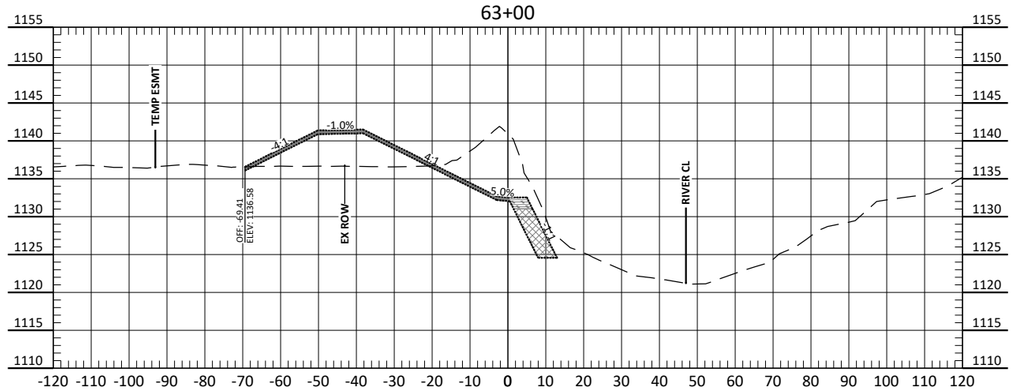
PROJECT NO. 3655-0099-006

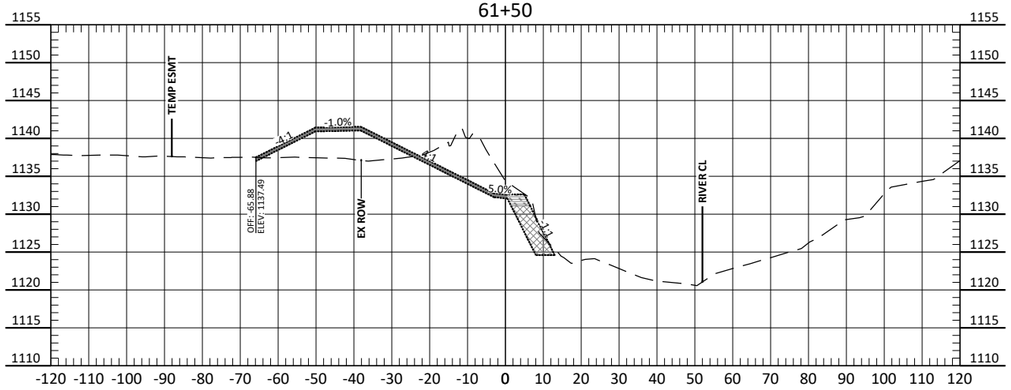
SHEET 13

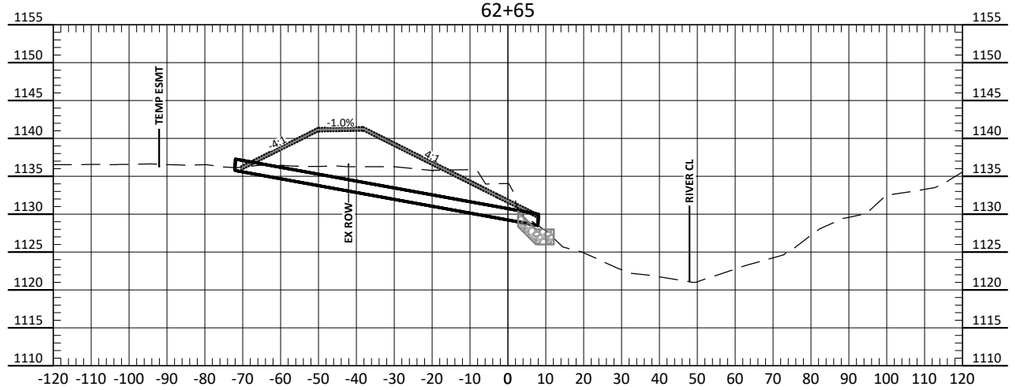
HEI NO. 3655-0099-006

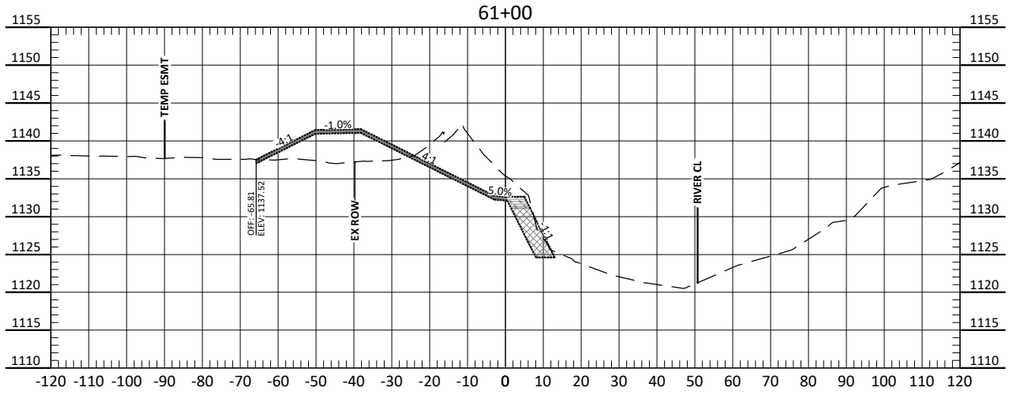
H:\JBN\3600\3655\3655-0099 Thief River SD 83 Streambank Stab 2020\3655-0099-006\CAD\Plans\3655-0099-006_XS.dwg-Dyrud_XS1-4/22/2026 11:49 AM-(bsteinhauer)

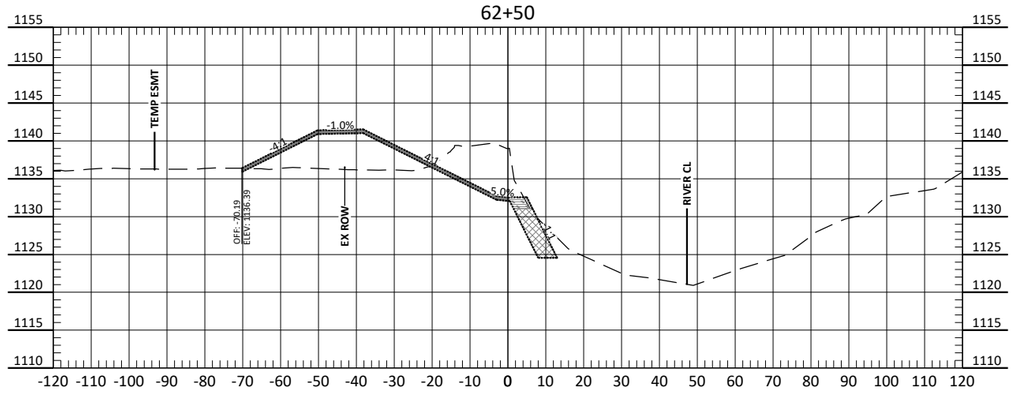












No.	Revision	Date	By

HOUSTON engineering, inc.

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THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

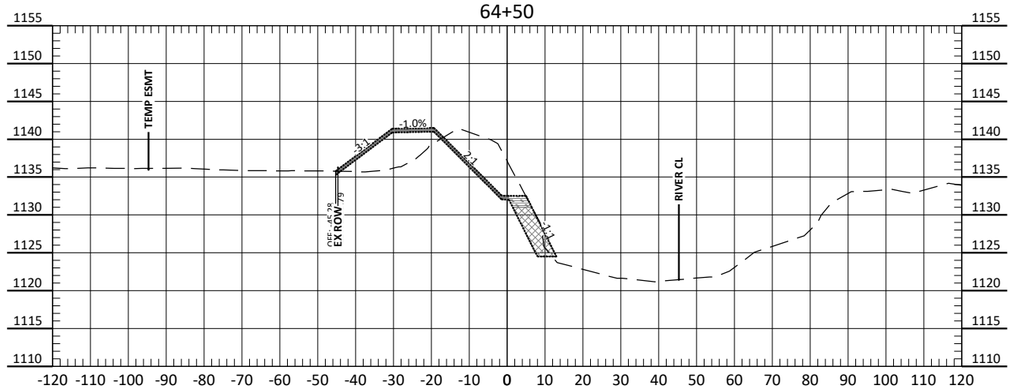
DYRUD XS2

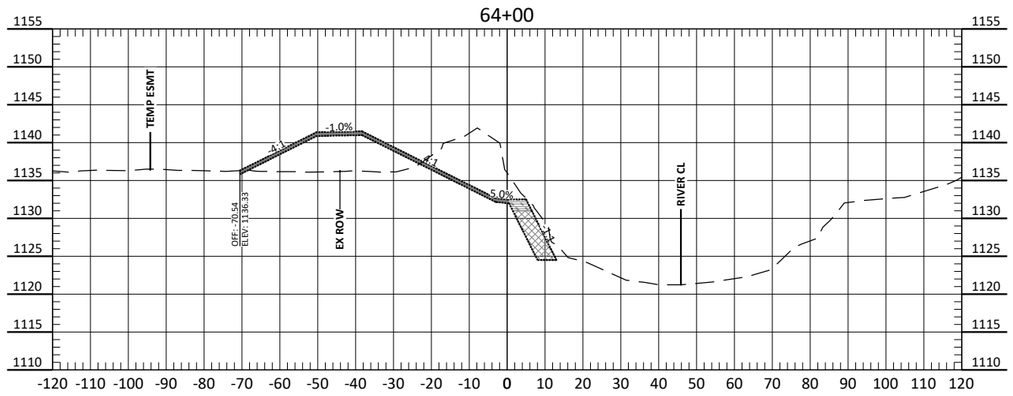
PROJECT NO. 3655-0099-006

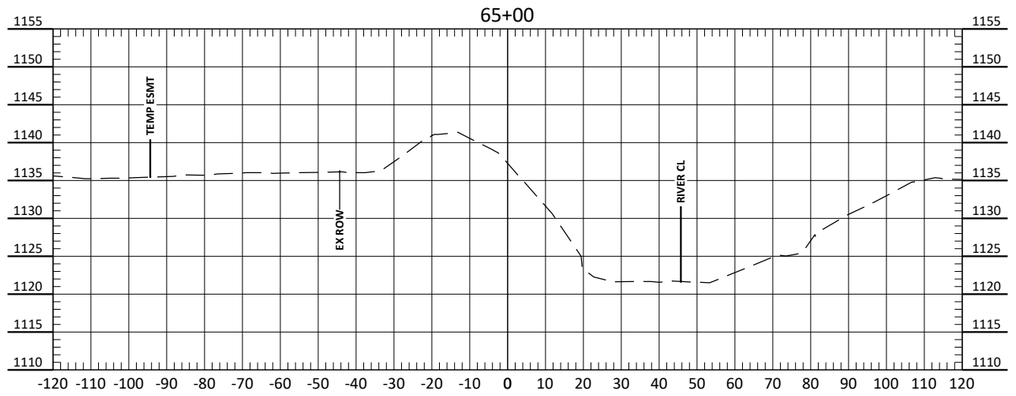
SHEET 14

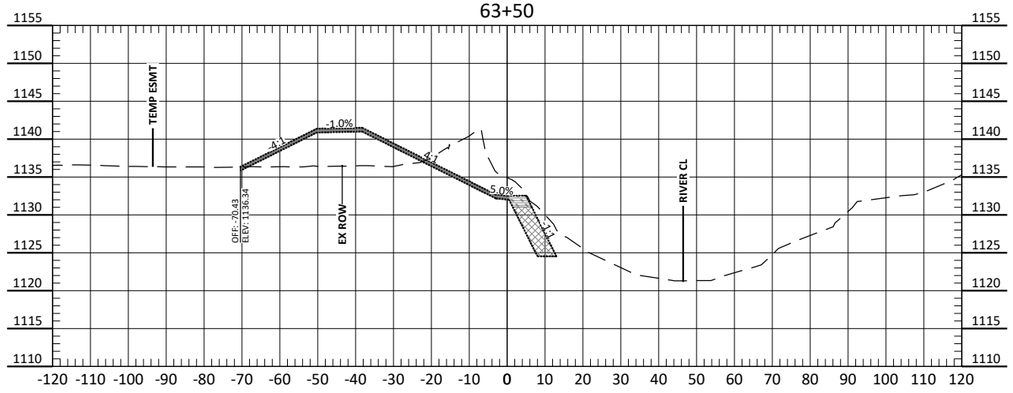
HEI NO. 3655-0099-006

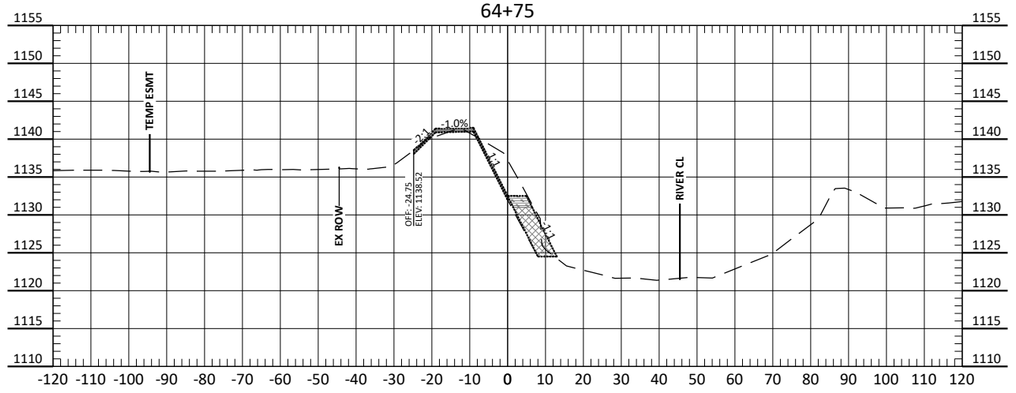
H:\JBN\3600\3655\3655-0099 Thief River SD 83 Streambank Stab 2020\3655-0099-006\CAD\Plans\3655-0099-006_XS.dwg-Dyrud_XS2-4/22/2026 11:49 AM-(bsteinhauer)











No.	Revision	Date	By

HOUSTON engineering, inc.

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Checked by	Scale
TAN	AS SHOWN

THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

DYRUD XS3

PROJECT NO. 3655-0099-006

SHEET 15

HEI NO. 3655-0099-006

H:\JBN\3600\3655\3655-0099 Thief River SD 83 Streambank Stab 2020\3655-0099-006\CAD\Plans\3655-0099-006_XS.dwg-Dyrud_XS3-4/22/2026 11:49 AM-(bsteinhauer)

AGDER TWP.
SECTION 7

STA. 101+50
BEGIN BANK SHAPING CONSTRUCTION
BLEND INTO EXISTING SLOPES (INCIDENTAL)

FLOTATION SILT CURTAIN
TYPE MOVING WATER

STA 111+00
END BANK SHAPING CONSTRUCTION
BLEND INTO EXISTING SLOPES (INCIDENTAL)

APPROXIMATE ℄ THIEF RIVER

RANDOM RIPRAP CL. 2
9.5' x 9.5' x 1.5' DEEP
(EST. 5 CY)

PROPOSED TOP OF
TOE-WOOD AND
SOD MAT

TEMP RIGHT OF WAY

SLOPE GRADING AND
TURF ESTABLISHMENT
WITH CAT 25

SEDIMENT CONTROL
LOG TYPE STRAW
(EST. 990')

SEDIMENT CONTROL
LOG TYPE STRAW
(EST. 1010')

PROPOSED CATCH POINT

SPOIL CREST

CULVERT END CONTROL

STA. 104+21
INP. - 18" X 46' CSP
REMOVE

STA. 104+62
F&I - 18" X 68' CSP CULVERT
W/18" FLAPGATE
NORTH INV. 1130.75
SOUTH INV. 1134.80

90'
90'
50'
FLOW

ROLLED EROSION
PREVENTION CAT 25

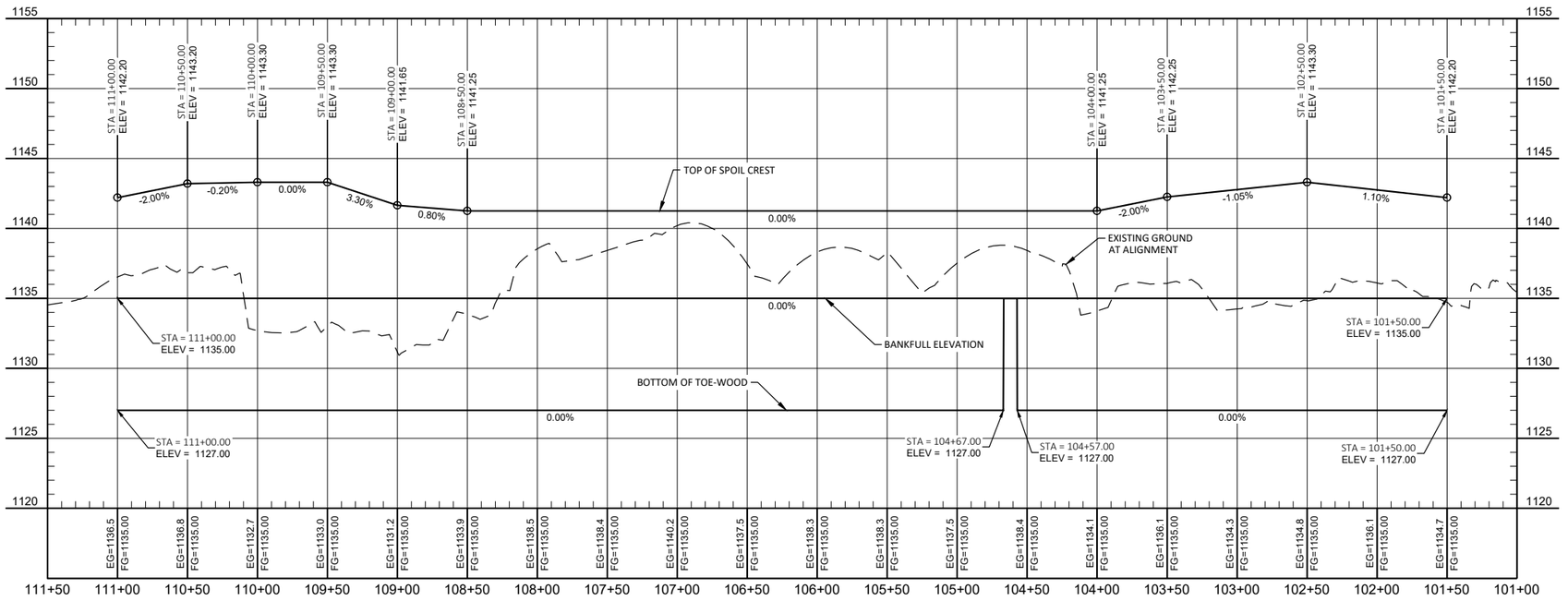
TOW-WOOD AND
18" SOD MAT

TURF ESTABLISHMENT

N

50 0 50 100
Scale Feet

NOTE:
IF ADDITIONAL TREES ARE NEEDED FOR THE TOE-WOOD INSTALLATION OUTSIDE THE T/E LIMITS, THE CONTRACTOR SHALL COORDINATE THIS WITH THE FIELD ENGINEER TO DETERMINE THE EXACT LOCATION AND METHOD OF ADDITIONAL TREE REMOVAL FROM THE ADJACENT PROPERTY.



No.	Revision	Date	By

I hearby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.
Signature: Tony A. Nordby
TONY NORDBY
Date: 04-22-2026
License Number: 51392

HOUSTON engineering, inc.

Drawn by	Date
BLS	04-22-2026
Checked by	Scale
TAN	AS SHOWN

THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

RODAHL P&P
PROJECT NO. 3655-0099-006

SHEET
16

HEI NO. 3655-0099-006

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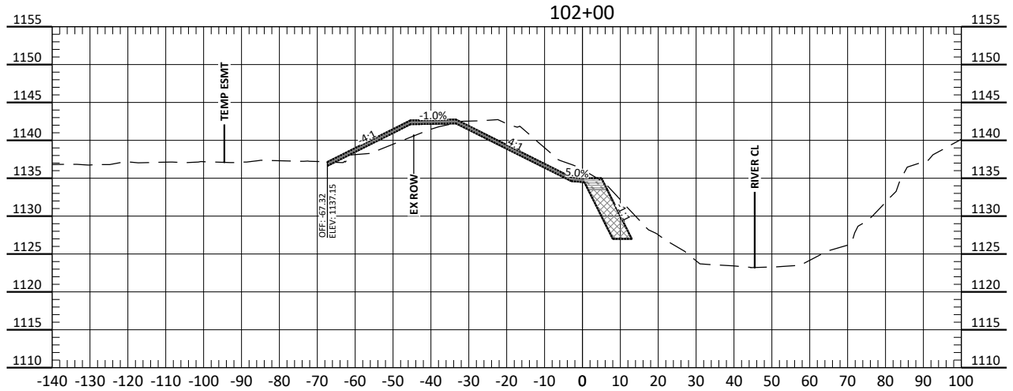

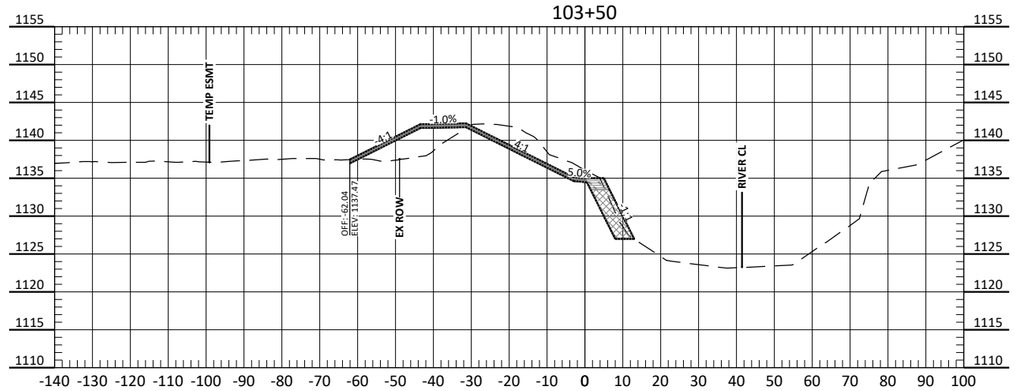

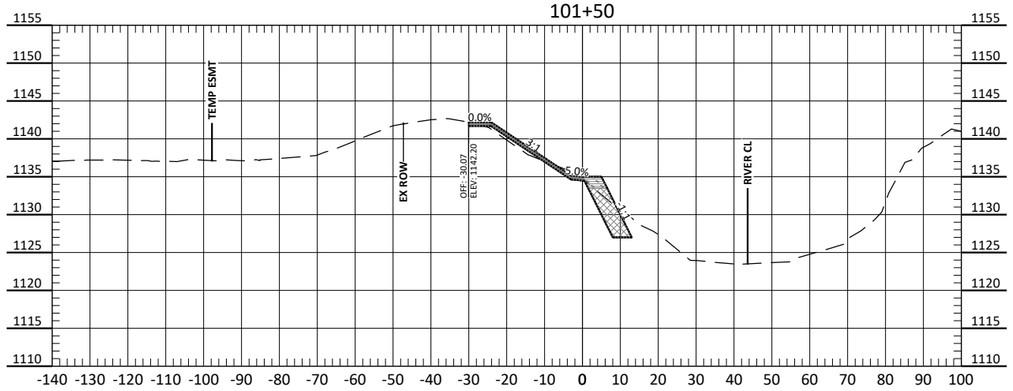

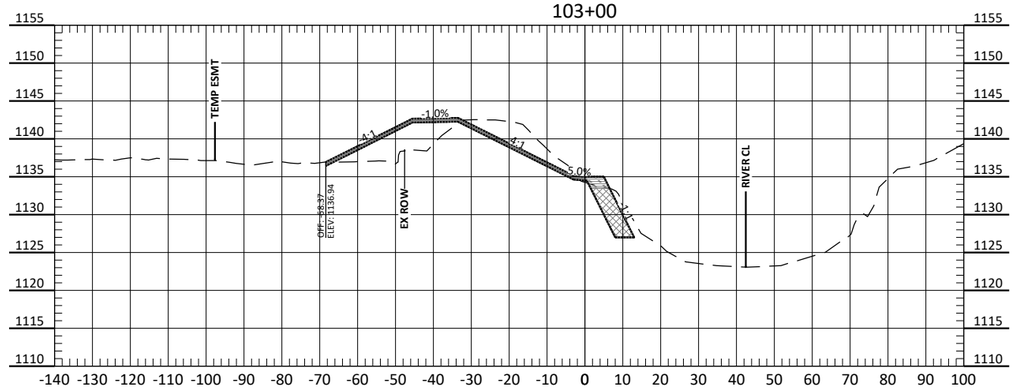

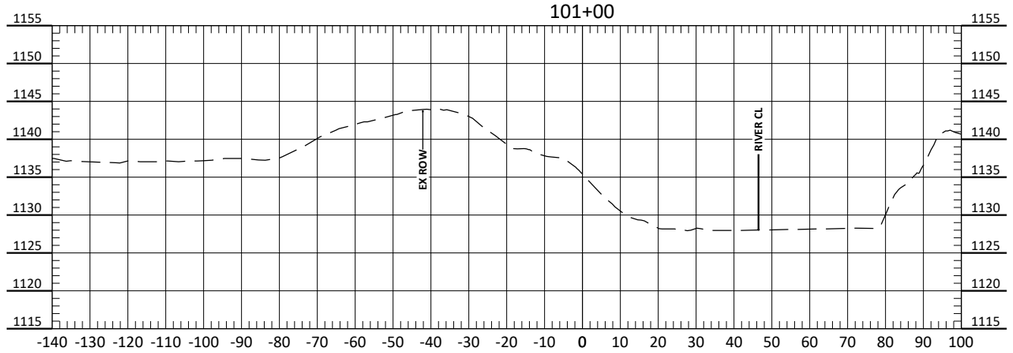

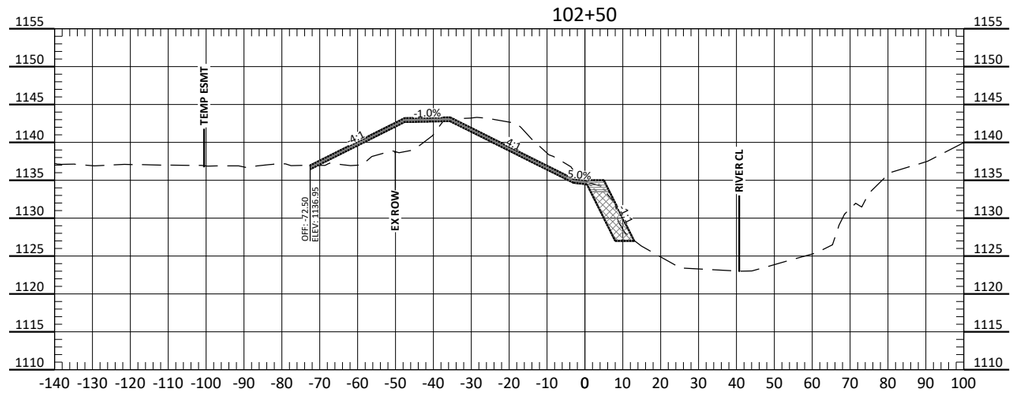

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No.	Revision	Date	By

HOUSTON engineering, inc.

Drawn by	Date
BLS	04-22-2026
Checked by	Scale
TAN	AS SHOWN

THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

RODAHL XS1

PROJECT NO. 3655-0099-006

SHEET 17

HEI NO. 3655-0099-006

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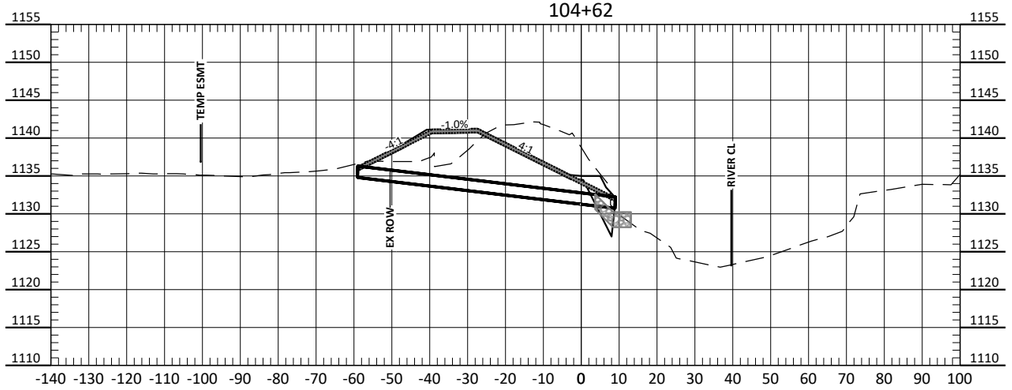

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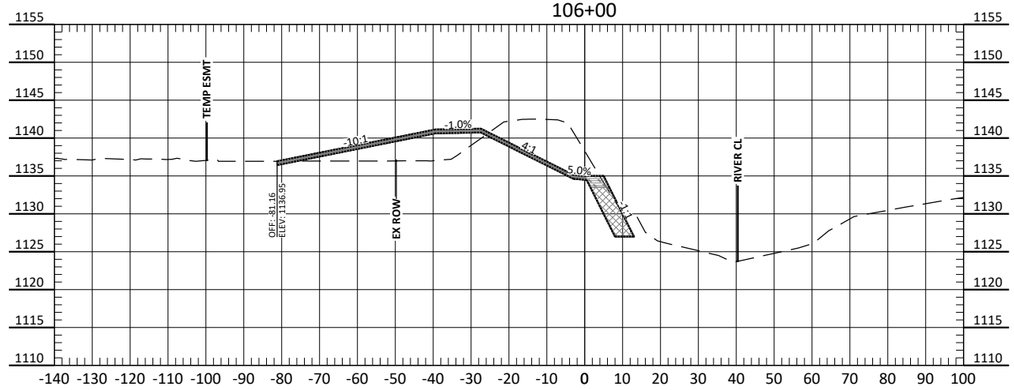

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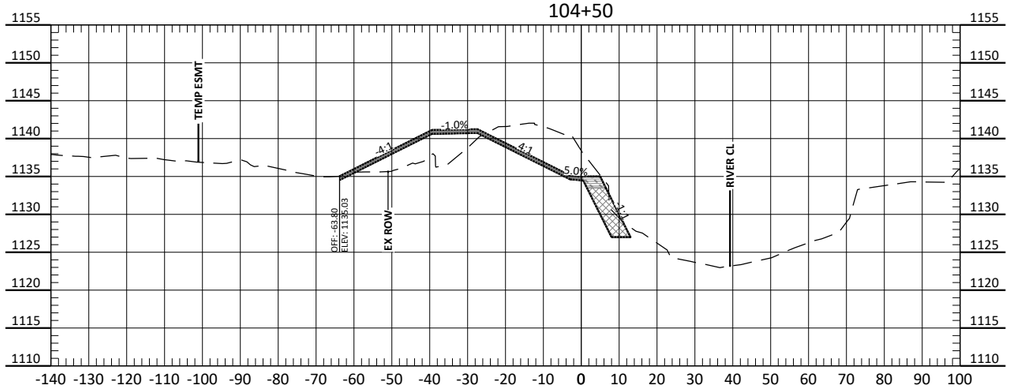

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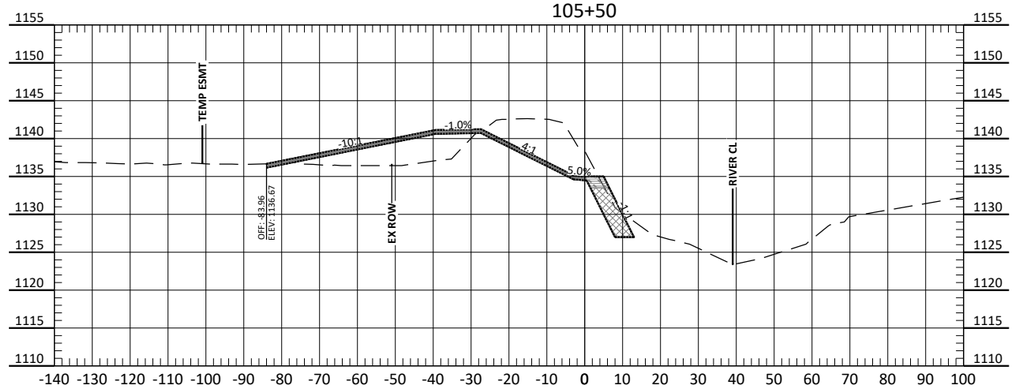

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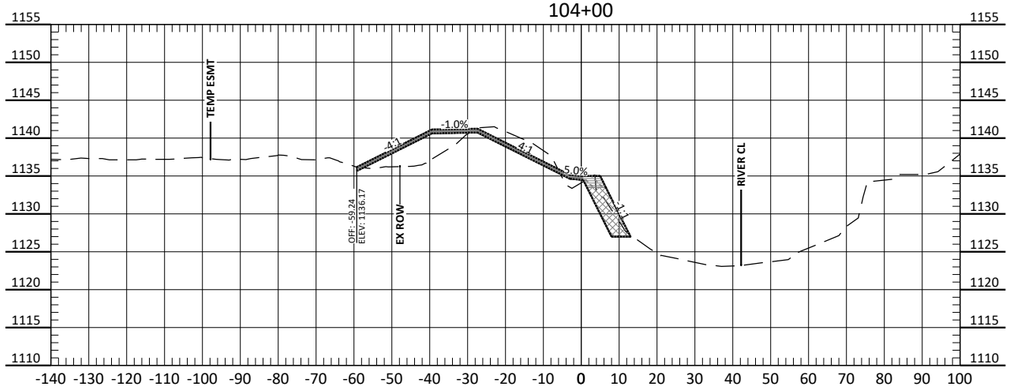

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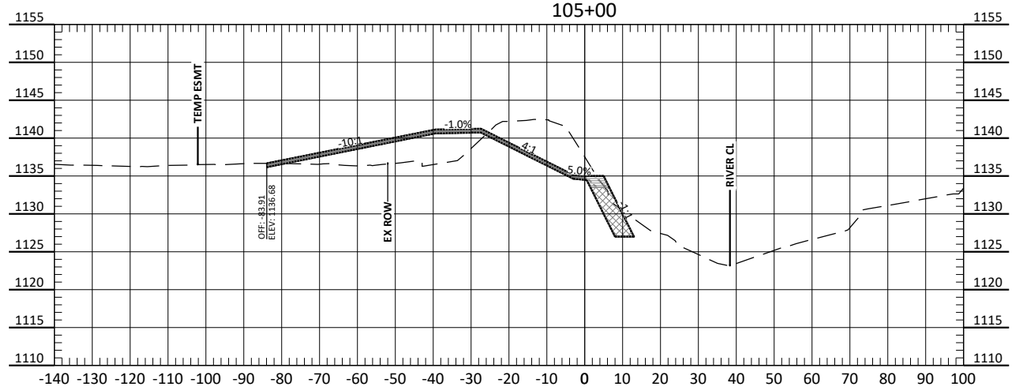

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THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

RODAHL XS2

PROJECT NO. 3655-0099-006

SHEET 18

HEI NO. 3655-0099-006

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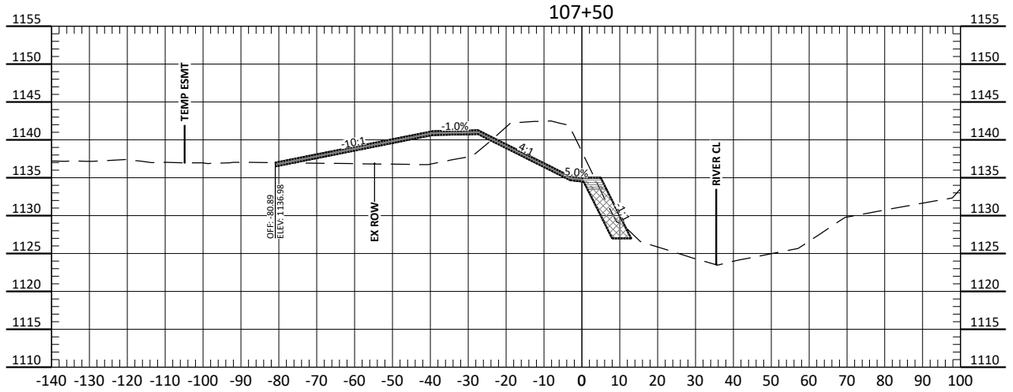

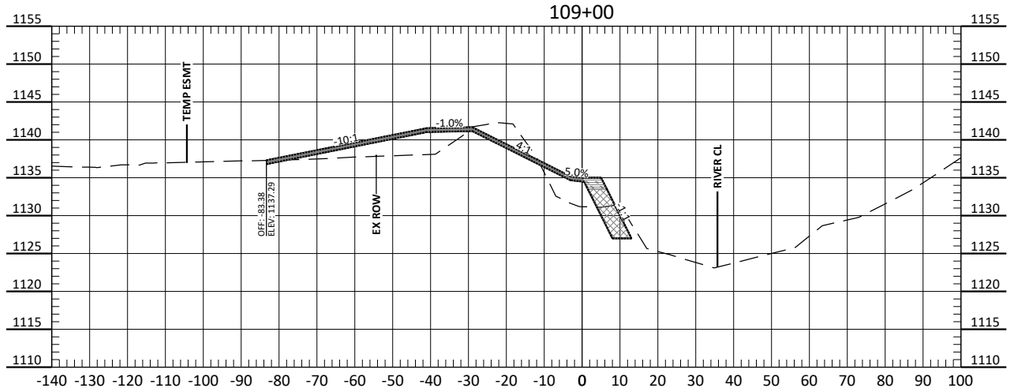

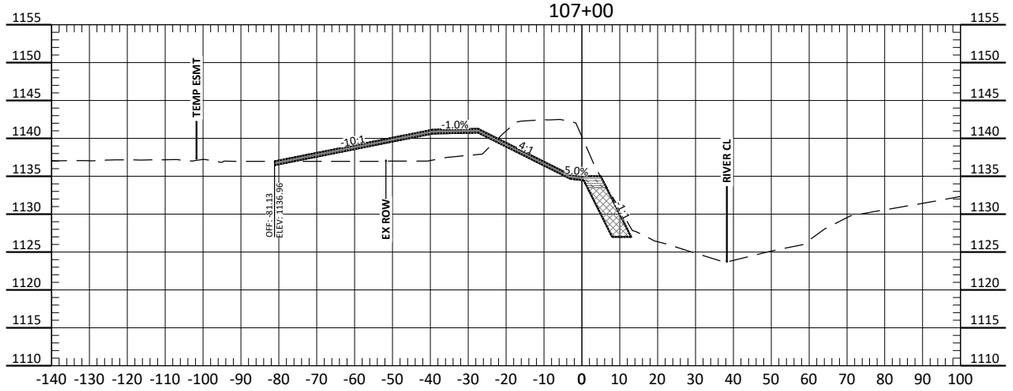

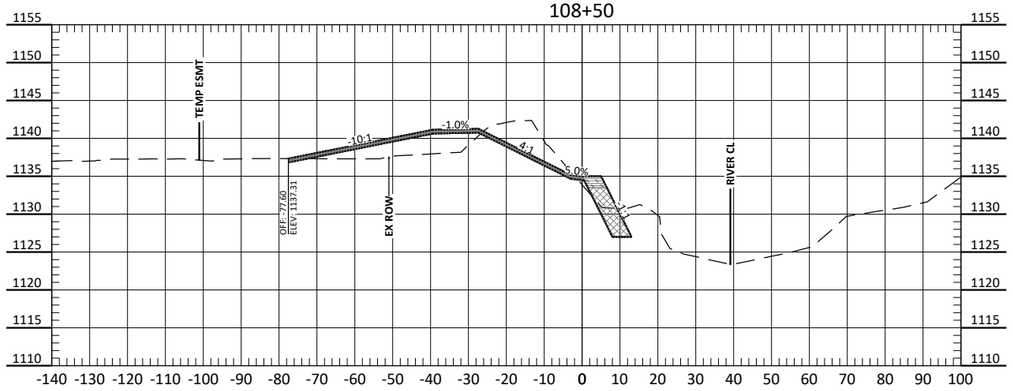

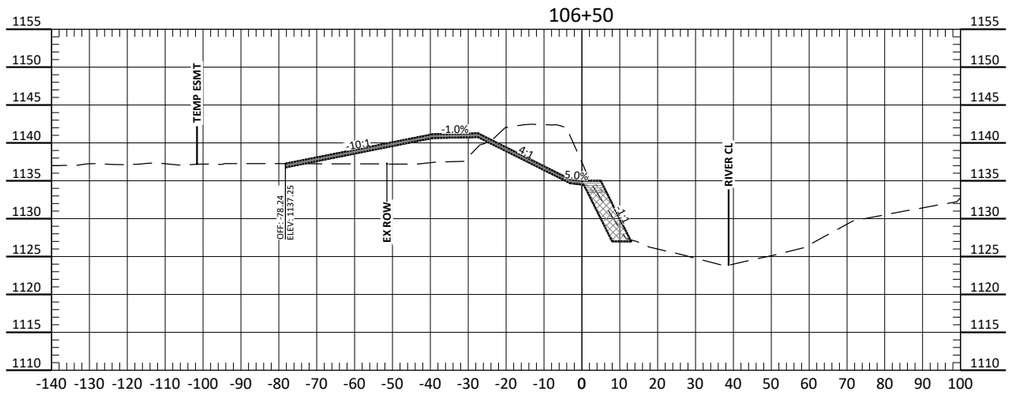

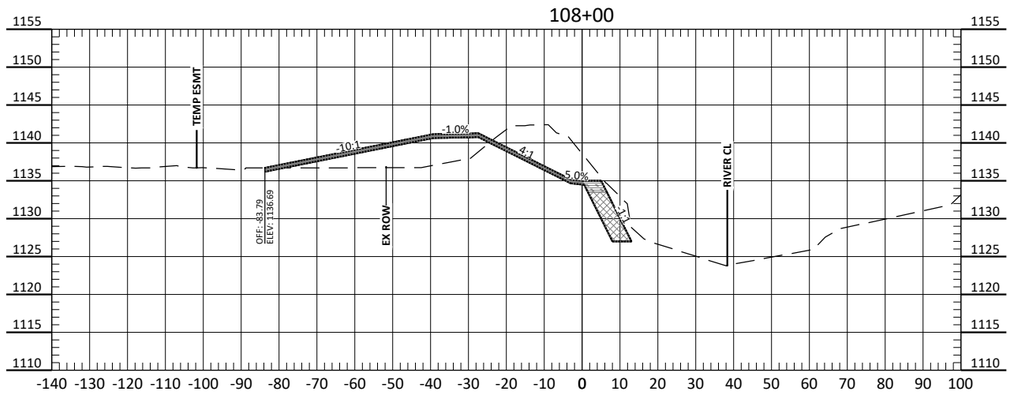

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THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

RODAHL XS3

PROJECT NO. 3655-0099-006

SHEET 19

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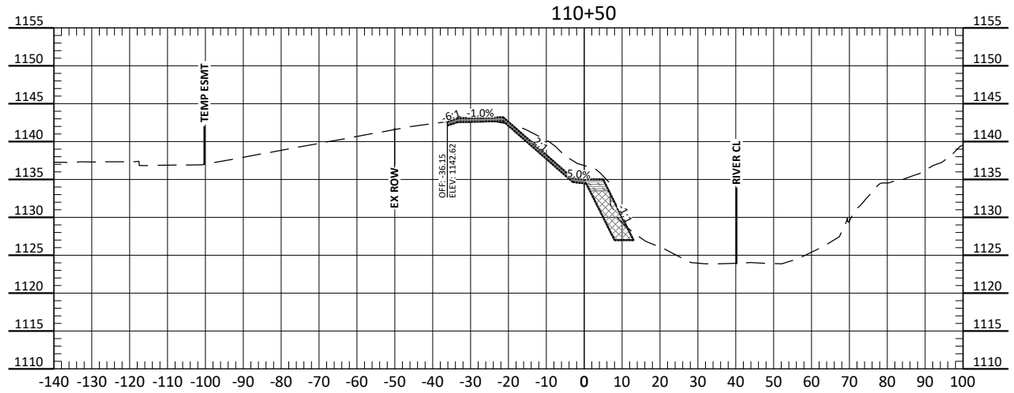

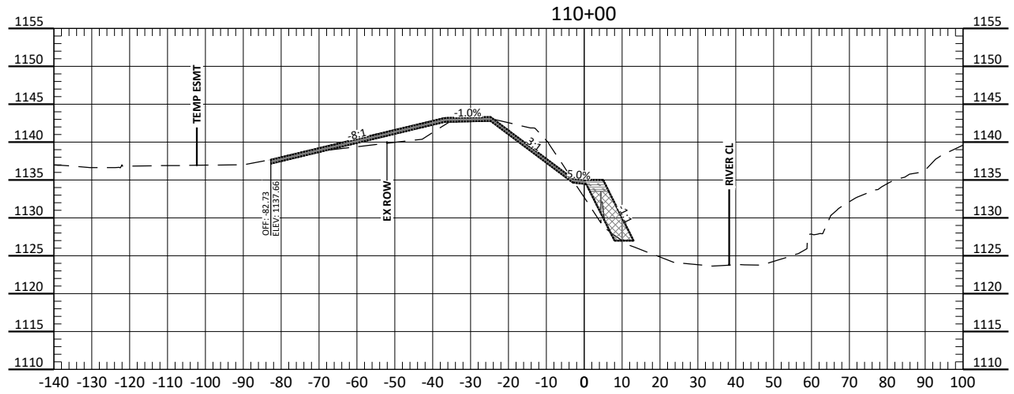

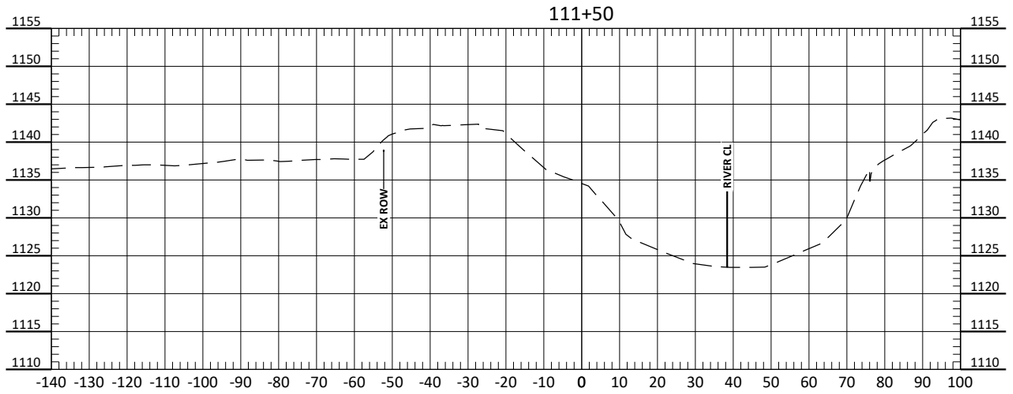

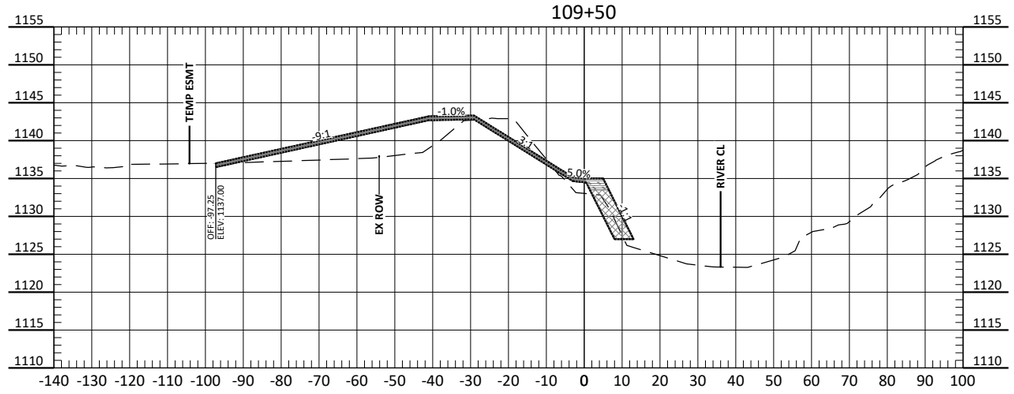

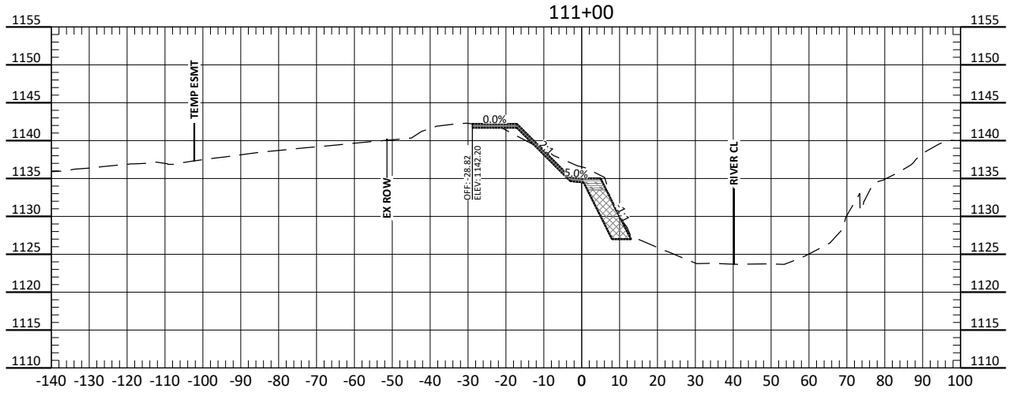

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THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

RODAHL XS4

PROJECT NO. 3655-0099-006

SHEET 20

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STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE

PROJECT DESCRIPTION/LOCATION

THE THIEF RIVER STREAMBANK STABILIZATION PROJECT IS LOCATED ON THE THIEF RIVER WITHIN SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY, MINNESOTA.

THE PLANNED SCOPE OF THE PROJECT INCLUDES:

THIS PROJECT WILL CONSIST OF APPROXIMATELY 2,900 FEET OF STREAMBANK STABILIZATION ALONG THE THIEF RIVER.

SPECIAL AND IMPAIRED WATERS

THESE SPECIAL AND IMPAIRED WATERS ARE LOCATED WITHIN ONE MILE OF THE PROJECT LIMITS AND RECEIVE RUNOFF FROM THE PROJECT SITE. DUE TO THE PROXIMITY OF THESE SPECIAL AND IMPAIRED WATERS THE BMPS DESCRIBED IN APPENDIX A OF THE NPDES PERMIT WILL APPLY TO ALL AREAS OF THE SITE.
IMPAIRED WATERS:

-THIEF RIVER.

ENVIRONMENTALLY SENSITIVE AREAS

IN ADDITION TO THE LIST OF SPECIAL AND IMPAIRED WATERS THE CONTRACTOR SHALL BE AWARE OF THESE ADDITIONAL ENVIRONMENTALLY SENSITIVE AREAS:
THIS PROJECT IS NOT LOCATED NEAR, AND OR DRAIN TO, ANY ENVIRONMENTALLY SENSITIVE AREAS.

LONG TERM MAINTENANCE AND OPERATION

THE RED LAKE WATERSHED DISTRICT IS RESPONSIBLE FOR THE LONG TERM MAINTENANCE AND OPERATIONS OF THE PERMANENT STORMWATER SYSTEM.

SWPPP TRAINING

THIS SWPPP WAS PREPARED BY HOUSTON ENGINEERING INC. PERSONAL THAT ARE CERTIFIED IN THE DESIGN OF CONSTRUCTION SWPPPS. COPIES OF THE CERTIFICATIONS ARE ON FILE WITH HOUSTON ENGINEERING INC. AND ARE AVAILABLE UPON REQUEST. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A CERTIFIED EROSION CONTROL SUPERVISOR THAT IS RESPONSIBLE FOR OVERSEEING THE IMPLEMENTATION OF THE SWPPP. THE CONTRACTOR MUST PROVIDE PROOF OF CERTIFICATION AT THE PRECONSTRUCTION MEETING AND WILL NOT BE ALLOWED TO COMMENCE WORK UNTIL PROOF OF CERTIFICATION HAS BEEN PROVIDED TO THE PROJECT ENGINEER.

EROSION CONTROL SUPERVISOR INSTALLATION, INSPECTION, AND MAINTENANCE

IN ACCORDANCE WITH THE SPECIAL PROVISIONS THE CONTRACTOR WILL PROVIDE A CERTIFIED EROSION CONTROL SUPERVISOR IN GOOD STANDING WHO IS KNOWLEDGEABLE AND EXPERIENCED IN THE APPLICATION OF EROSION PREVENTION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES. THE EROSION CONTROL SUPERVISOR IS INCIDENTAL.

THE EROSION CONTROL SUPERVISOR WILL WORK WITH THE PROJECT ENGINEER TO OVERSEE THE IMPLEMENTATION OF THE SWPPP AND THE INSTALLATION, INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPS BEFORE, DURING , AND AFTER CONSTRUCTION UNTIL THE NOTICE OF TERMINATION (NOT) HAS BEEN FILED WITH THE MPCA.

THE EROSION CONTROL SUPERVISOR IS RESPONSIBLE FOR COMPLYING WITH ALL THE INSPECTION AND MAINTENANCE REQUIREMENTS STATED IN THE NPDES PERMIT PART IV. F. INSPECTION OF THE ENTIRE CONSTRUCTION SITE WILL OCCUR A MINIMUM OF ONCE EVERY SEVEN DAYS DURING ACTIVE CONSTRUCTION AND WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS. THE EROSION CONTROL CONTROL SUPERVISOR WILL THOROUGHLY INSPECT ALL EROSION PREVENTION AND SEDIMENT CONTROL BMPS TO ENSURE INTEGRITY AND EFFECTIVENESS OF EACH BMP. ALL INSPECTIONS AND MAINTENANCE CONDUCTED DURING CONSTRUCTION MUST BE REPORTED IN WRITING AND THESE MUST BE RETAINED WITH THE SWPPP. INSPECTION REPORTS MUST BE SUBMITTED TO THE PROJECT ENGINEER IN A FORMAT THAT MEETS OR EXCEEDS THE PROJECT ENGINEERS EXPECTATIONS. RECORDS OF EACH INSPECTION AND MAINTENANCE ACTIVITY SHALL INCLUDE:

A. DATE AND TIME OF THE INSPECTIONS
B. NAME AND PERSONS CONDUCTING THE INSPECTIONS
C. FINDINGS OF INSPECTION, INCLUDING RECOMMENDATIONS FOR CORRECTIVE ACTIONS
D. CORRECTIVE ACTIONS TAKEN, INCLUDING DATES, TIMES, AND PARTY COMPLETING MAINTENANCE ACTIVITIES
E. DATE AND AMOUNT OF ALL RAINFALL EVENTS GREATER THAN 0.5 INCHES IN 24 HOURS
F. DOCUMENT ANY CHANGES MADE TO THE SWPPP

AMENDMENTS TO THE SWPPP APPROVED BY THE PROJECT ENGINEER MAY BE DOCUMENTED IN A JOURNAL OR RED LINED ON THE SWPPP PLAN SET SHEETS.

ENVIRONMENTAL REVIEW

THERE ARE NO STORMWATER MITIGATION MEASURES REQUIRED AS A RESULT OF AN ENVIRONMENTAL, ARCHEOLOGICAL OR AGENCY REVIEW. ALL MITIGATION MEASURES HAVE BEEN ADDRESSED IN THIS PLAN SET.

THIS PROJECT IS NOT LOCATED IN A WELL HEAD PROTECTION AREA.

SOIL TYPES

SOIL TYPES TYPICALLY FOUND ON THIS PROJECT ARE: TOPSOIL, CLEARWATER CLAY, FOXLAKE LOAM, NEWFOLDEN LOAM, BOASH CLAY LOAM, ESPELIE FINE SANDY LOAM, HAMERLY LOAM, ROLISS-VALLERS LOAMS, WILDWOOD MUCK, AND FLUVAQUENTS, FREQUENTLY FLOODED-HAPLUDOLLS.

LAND FEATURE CHANGES

TOTAL DISTURBED AREA: 5.5 ACRES
TOTAL EXISTING IMPERVIOUS SURFACE AREA: 0.0 ACRES
TOTAL PROPOSED IMPERVIOUS SURFACE AREA: 0.0 ACRES
TOTAL PROPOSED NET CHANGE IN IMPERVIOUS AREA: 0.0 ACRES

PERMANENT STORM WATER TREATMENT PLAN

NET CHANGE IN IMPERVIOUS SURFACE IS UNDER 1.0 ACRE, NO PERMANENT STORMWATER TREATMENT IS REQUIRED.

PROJECT CONTACTS

THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTATION OF THE SWPPP AND INSTALLATION, INSPECTION, AND MAINTENANCE OF THE EROSION PREVENTION AND SEDIMENT CONTROL BMPS BEFORE, DURING, AND AFTER CONSTRUCTION UNTIL THE NOTICE OF TERMINATION HAS BEEN FILED.

PROJECT OWNER: RED LAKE WATERSHED DISTRICT: (218) 681-5800
PROJECT ENGINEER: TONY NORDBY, HOUSTON ENGINEERING INC (218) 633-7251
PROJECT CONTRACTOR: TO BE DETERMINED
SWPPP DESIGNER: TYLER OLSON, HOUSTON ENGINEERING INC (218) 633-7117
MPCA 24 HOUR EMERGENCY NOTIFICATION: 651-649-5451 OR 800-422-0798

LOCATION OF SWPPP REQUIREMENTS

THE REQUIRED SITE SPECIFIC SWPPP ELEMENTS MAY BE LOCATED IN VARIOUS PLACES WITHIN THE PLAN SET AND SPECIFICATIONS. HOWEVER GENERAL SWPPP REQUIREMENTS WILL BE GOVERNED BY THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" (2020 EDITION) SECTION 2573 FOR STORMWATER MANAGEMENT.

LOCATION OF SWPPP REQUIREMENTS IN PROJECT PLAN: SHEETS 6, 12, AND 16
EROSION AND SEDIMENT CONTROL DETAILS: SHEET 25-28

GENERAL SWPPP NOTES FOR CONSTRUCTION ACTIVITIES

1. AMEND THE SWPPP WITH THE APPROVAL OF THE PROJECT ENGINEER AND DOCUMENT ANY AND ALL CHANGES TO THE SWPPP AND ASSOCIATED PLAN SHEETS IN A TIMELY MANNER. STORE THE SWPPP AND ALL AMENDMENTS ON SITE AT ALL TIMES

2. THE UNIT PRICE BID FOR ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL INCLUDE MAINTANENCE AND INSPECTION AS DETAILED IN THE EROSION CONTROL SUPERVISOR SECTION ABOVE AND GENERAL SPECIFICATIONS. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO HAVE REGULAR INSPECTIONS AS DETAILED AND BE CLEANED AND RETURNED TO MAXIMUM EFFECTIVENESS AT THE LIMITS DETAILED IN THE GENERAL REQUIREMENTS.

3. THE CONTRACTOR WILL COMPLY WITH THE REQUIREMENTS REGARDING POLLUTION PREVENTION MANAGEMENT DURING CONSTRUCTION, WHICH WILL INCLUDE, BUT NOT LIMITED TO:
   - 3.A. SOLID WASTE COLLECTION AND REMOVAL.
   - 3.B. SECONDARY CONTAINMENT.
   - 3.C. SECURED HAZARDOUS WASTE STORAGE CONTAINERS.
   - 3.D. CHEMICAL SPILL KITS.
   - 3.E. PORTABLE RESTROOM FACILITIES THAT ARE ANCHORED TO PREVENT TIPPING.

4. CHEMICALS MUST BE KEPT IN A SECURE STORAGE AREA WHEN NOT IN USE. CHEMICAL STORAGE CONTAINERS MUST HAVE SECONDARY CONTAINMENT WHEN BEING USED OR STORED ON THE PROJECT SITE. CHEMICAL SPILLS OF ANY KIND (OIL, FUEL, FERTILIZER, ETC.) MUST BE CLEANED UP AND REMOVED FROM THE SITE IMMEDIATELY. THE CONTRACTOR MUST HAVE A SPILL KIT ON SITE AT ALL TIMES.

5. BURNING OF ANY MATERIAL IS NOT ALLOWED WITHIN THE PROJECT BOUNDARY.

6. THE EROSION PREVENTION AND SEDIMENT CONTROL BMPS SHALL BE INSTALLED AS NECESSARY TO MINIMIZE EROSION FROM DISTURBED SURFACES AND TO CAPTURE SEDIMENT ON SITE. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF ANY REMOVAL WORK AND/OR GROUND DISTURBING ACTIVITIES.

7. ESTABLISH SEDIMENT CONTROL DEVICES ON ALL DOWN GRADIENT PERIMETERS AND UPGRADIENT OF ANY BUFFER ZONES BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITIES BEGIN. MAINTAIN SEDIMENT CONTROL DEVICES UNTIL CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.

8. LOCATE PERIMETER CONTROL ON THE CONTOUR TO CAPTURE OVERLAND, LOW- VELOCITY SHEET FLOWS DOWN GRADIENT OF ALL EXPOSED SOILS AND PRIOR TO DISCHARGING TO SURFACE WATERS. PLACE J-HOOKS AT A MAXIMUM OF 100 FOOT INTERVALS.

9. PROVIDE PERIMETER CONTROL AROUND ALL STOCKPILES. PLACE BMP A MINIMUM 5 FEET FROM THE TOE OF SLOPE WHERE FEASIBLE. DO NOT PLACE STOCKPILES IN NATURAL BUFFER AREAS, SURFACE WATERS OR STORMWATER CONVEYANCES. WHEN STOCKPILE IS LOCATED ON A STREET SEE "STOCKPILE ON STREET DETAIL" FOR REQUIREMENTS AND MEASUREMENTS WHICH DIFFER FROM A GENERAL STOCKPILE.

10. PLACE CONSTRUCTION EXITS, AS NECESSARY, TO PREVENT TRACKING OF SEDIMENT ONTO PAVED SURFACES BOTH ON AND OFF THE PROJECT SITE. PROVIDE CONSTRUCTION EXITS OF SUFFICIENT SIZE TO PREVENT TRACK OUT. MAINTAIN CONSTRUCTION EXITS WHEN EVIDENCE OF TRACKING IS DISCOVERED. REGULAR STREET SWEEPING IS NOT AN ACCEPTABLE ALTERNATIVE TO PROPER CONSTRUCTION EXIT INSTALLATION AND MAINTENANCE. STREET SWEEPING MAY BE USED IN CONJUNCTION WITH CONSTRUCTION EXITS FOR MORE EFFICIENT MANAGEMENT OF TRACK OUT BUT NOT AS THE MAIN BMP.

No.	Revision	Date	By

I hearby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.
Signature: Tony A. Nordby
TONY A. NORDBY
Date: 04-22-2026
License Number: 51392

HOUSTON engineering, inc.

Drawn by	Date
BLS	04-22-2026
Checked by	Scale
TAN	AS SHOWN

THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

SWPPP1
PROJECT NO. 3655-0099-006

SHEET
21

GENERAL SWPPP NOTES FOR CONSTRUCTION ACTIVITY (CONTINUED)

15. DISCHARGE TURBID OR SEDIMENT LADEN WATER TO TEMPORARY SEDIMENT BASINS, OR SEDIMENT FILTER BAG, WHENEVER FEASIBLE. IN THE EVENT THAT IT IS NOT FEASIBLE TO DISCHARGE THE SEDIMENT LADEN WATER TO A TEMPORARY SEDIMENT BASIN, THE WATER MUST BE TREATED SO THAT IT DOES NOT CAUSE A NUISANCE CONDITION IN THE RECEIVING WATERS OR TO DOWNSTREAM LANDOWNERS CLEAN OUT ALL PERMANENT STORMWATER BASINS REGARDLESS OF WHETHER USED AS TEMPORARY SEDIMENT BASINS OR TEMPORARY SEDIMENT TRAPS TO THE DESIGN CAPACITY AFTER ALL UPGRADIENT LAND DISTURBING ACTIVITY IS COMPLETED.

16. PROVIDE SCOUR PROTECTION AT ANY OUTFALL OF DEWATERING ACTIVITIES.

17. PROVIDE STABILIZATION IN ANY TRENCHES CUT FOR DEWATERING OR SITE DRAINING PURPOSES.

18. REMOVE SEDIMENT FROM THE STORMWATER SYSTEM AT THE END OF THE PROJECT.

19. PRESERVE A 50 FOOT NATURAL BUFFER OR (IF BUFFER IS INFEASIBLE) PROVIDE A REDUNDANT SEDIMENT CONTROLS WHEN A SURFACE WATER IS LOCATED WITHIN 50 FEET OF LAND DISTURBANCE STORMWATER FLOWS TO THE SURFACE WATER.

20. DITCHES AND EXPOSED SOILS MUST BE KEPT IN AN EVEN ROUGH GRADED CONDITION IN ORDER TO BE ABLE TO APPLY EROSION CONTROL MULCHES AND BLANKETS

21. STABILIZATION FOR ALL EXPOSED SOIL AREAS, INCLUDING STOCKPILES, MUST BE INITIATED IMMEDIATELY WHEN CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS (7 DAYS IF WITHIN 1 MILE OF AND DRAINING TO A SPECIAL OR IMPAIRED WATER). IN MANY INSTANCES, THIS WILL REQUIRE STABILIZATION TO OCCUR MORE THAN ONCE DURING ROUGH GRADING.

22. THE NORMAL WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DRAINAGE DITCH THAT DRAINS WATER FROM THE CONSTRUCTION SITE OR DIVERTS WATER AROUND THE CONSTRUCTION SITE MUST BE STABILIZED WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE OR POINT OF DISCHARGE TO ANY SURFACE WATER. STABILIZATION MUST OCCUR WITHIN 24 HOURS OF CONNECTION TO A SURFACE WATER, EXISTING GUTTER, STORM SEWER INLET, DRAINAGE DITCH, OR OTHER STORMWATER CONVEYANCE SYSTEM.

23. OUTLETS INTO SURFACE WATERS SHALL BE STABILIZED WITH ENERGY DISSIPATION WITHIN 24 HOURS OF BEING CONSTRUCTED.

24. ALL EXPOSED SOIL AREAS WILL BE STABILIZED PRIOR TO THE ONSET OF WINTER. ANY WORK STILL BEING PERFORMED WILL BE SNOW MULCHED, SEEDED, OR BLANKETED WITHIN THE TIME FRAMES IN THE NPDES PERMIT.

25. THE EROSION SUPERVISOR SHALL COMPLY WITH THE INSPECTION AND MAINTENANCE REQUIREMENTS OUTLINED IN THE NPDES PERMIT.

26. IF SEDIMENT DEPOSITS IN A WATER OF THE STATE, THE MATERIAL MUST BE REMOVED WITHIN 7 DAYS.

EROSION CONTROL QUANTITIES

ITEM NO.	ITEM	UNIT	QUANTITY
2511.507	RANDOM RIPRAP CLASS II	CU. YD.	10
2573.503	FLOATATION SILT CURTAIN TYPE MOVING WATER	LIN. FT.	300
2573.503	SEDIMENT CONTROL LOG TYPE STRAW	LIN. FT.	6070
2575.504	ROLLED EROSION PREVENTION CATEGORY 25	SQ. YD.	14811
2575.608	SEED MESIC INSLOPE	LBS	272
2577.601	TOE-WOOD DEBRIS	CU. YD.	3379
2577.601	SOD MAT	SQ. YD.	1611

*ADDITIONAL BMP'S WILL BE INSTALLED WHERE EVER NECESSARY IN ACCORDANCE WITH THE PROVISIONS OF THE SWPPP AND THE CONSTRUCTION SPECIFICATIONS. THE SWPPP WILL BE AMENDED AS REQUIRED WITH THE APROVAL OF THE PROJECT ENGINEER.

SEQUENCE OF CONSTRUCTION

1. INSTALL PERIMETER SEDIMENT CONTROL BMPS SUCH AS SILT FENCES, INLET PROTECTION, SEDIMENT CONTROL LOGS, ETC. AFTER PREPARING THE INSTALLATION AREA.
2. COMPLETE CONSTRUCTION OF THE BANK STABILIZATION
3. SEEDING AND EROSION CONTROL APPLICATIONS
4. AFTER FINAL STABILIZATION REMOVE ANY AND ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMP'S

WATER RESOURCES NOTES

THESE NOTES ALONG WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE ARE INTENDED TO GIVE INFORMATION ON THE CRITICAL DRAINAGE FEATURES, NATURAL RESOURCES AND CONTRACTOR OPERATIONS THAT MAY IMPACT DRAINAGE AND NATURAL RESOURCES.

1. THE SIZE AND ELEVATION OF CULVERTS, STORM SEWER PIPES, CATCH BASINS, PONDS, INFILTRATION/FILTRATION BASINS, PERMEABLE DITCH BLOCKS AND OVERFLOW DEVICES HAVE BEEN SPECIFICALLY DESIGNED TO CONFORM TO MNDOT DESIGN STANDARDS, MINNESOTA POLLUTION CONTROL AGENCY (MPCA) AND WATERSHED DISTRICT PERMIT REQUIREMENTS. CHANGING THESE ITEMS OR THE DIRECTION OF FLOW FROM WHAT IS SHOWN ON THE PLANS MAY CAUSE PROBLEMS OFF THE PROJECT AND COULD MEAN THE PROJECT IS OUT OF COMPLIANCE WITH APPROVED DRAINAGE PERMIT. ANY CHANGES TO THE SIZE, ELEVATION OR DIRECTION OF FLOW OF THE DRAINAGE SYSTEM MUST BE APPROVED BY THE WATER RESOURCES DESIGNER.

2. ANY SUBSURFACE DRAINAGE TILES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED, REPLACED OR REROUTED, AND CONNECTED TO THE EXISTING TILE OR DRAINAGE SYSTEM TO ENSURE THAT EXISTING UPLAND DRAINAGE IS PERPETUATED. THIS SHOULD BE DONE TO THE APPROVAL AND SATISFACTION OF THE ENGINEER.

3. THE FOLLOWING WATER RELATED PERMITS MAY APPLY TO THIS PROJECT:

3.1. MINNESOTA POLLUTION CONTROL AGENCY (MPCA), NPDES CONSTRUCTION PERMIT

REVIEW ALL PERMITS FOR ANY SPECIAL CONDITIONS THAT WILL EFFECT CONSTRUCTION OF THE PROJECT.

TEMPORARY DEWATERING ACTIVITIES MAY BE REQUIRED FOR ROADWAY CONSTRUCTION AND UTILITY WORK. THEREFORE IT IS POSSIBLE THAT A PERMIT FOR THE TEMPORARY APPROPRIATION OF WATERS OF THE STATE, NON-IRRIGATION FROM MNDNR WILL BE REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING THIS PERMIT PRIOR TO COMMENCING DEWATERING ACTIVITIES. ALL TEMPORARY DEWATERING SHALL BE DISCHARGED TO AN APPROVED LOCATION FOR TREATMENT PRIOR TO DISCHARGE TO THE RECEIVING WATER. SUBMIT A SITE MANAGEMENT PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK.

3.2 MINNESOTA DEPARTMENT OF NATURAL RESOURCES PUBLIC WATERS PERMIT

3.3 UNITED STATES ARMY CORPS OF ENGINEERS GENERAL PERMIT

3.4 MINNESOTA WETLAND CONSERVATION ACT (WCA) PERMIT

No.	Revision	Date	By

I hearby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.

Signature: Tony A. Nordby — Date: 04-22-2026

TONY A. NORDBY — License Number: 51392

HOUSTON engineering, inc.

Drawn by	Date
BLS	04-22-2026
Checked by	Scale
TAN	AS SHOWN

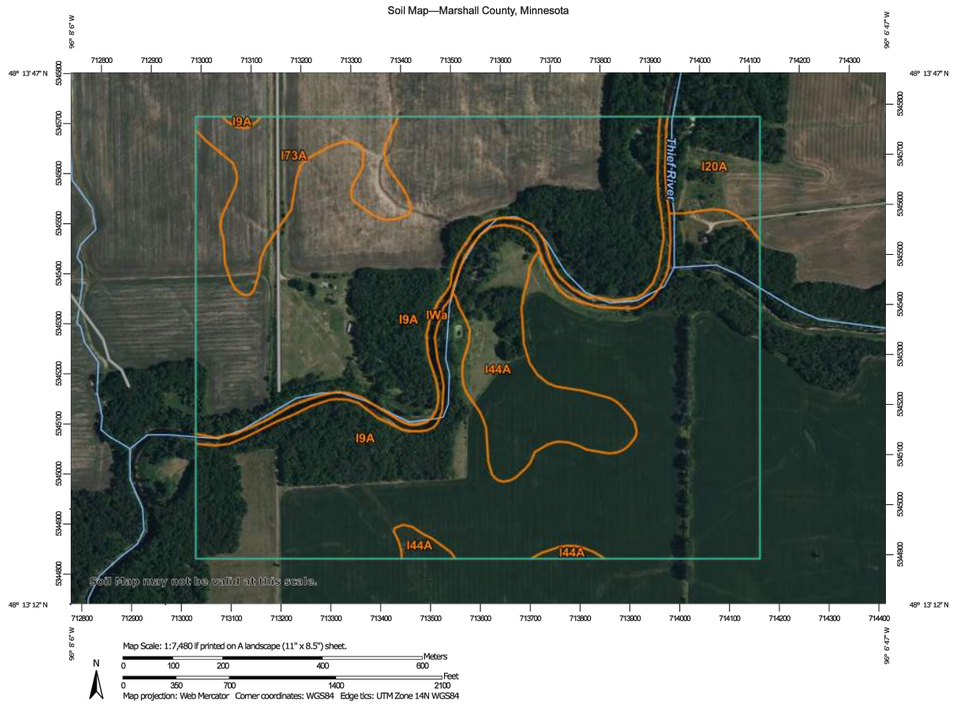
THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

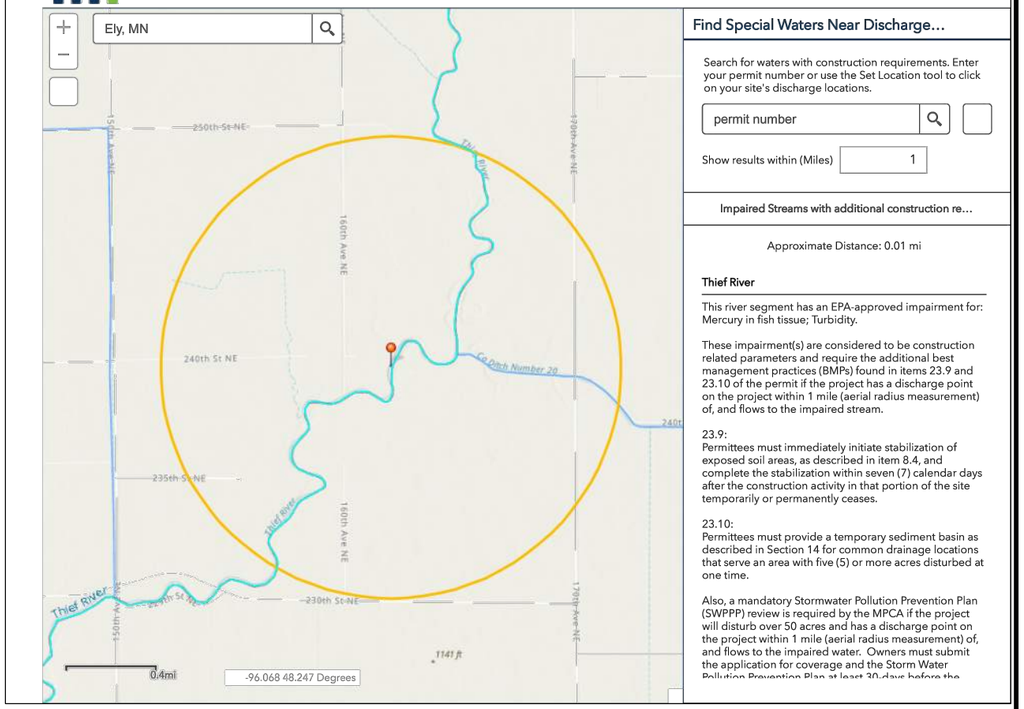
SWPPP2

PROJECT NO. 3655-0099-006

SHEET 22

HEI NO. 3655-0099-006





Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
I9A	Clearwater clay, 0 to 1 percent slopes	194.7	78.4%
I20A	Foxlake loam, 0 to 1 percent slopes	9.2	3.7%
I44A	Newfolden loam, 0 to 2 percent slopes	21.9	8.8%
I73A	Boash clay loam, 0 to 2 percent slopes	16.0	6.4%
IWa	Water	6.5	2.6%
Totals for Area of Interest		**248.2**	**100.0%**

H:\JBN\3600\3655\3655-0099 Thief River SD 83 Streambank Stab 2020\3655-0099-006\CAD\Plans\3655-0099-006_SWPPP.dwg-SWPPP3-4/22/2026 11:50 AM-(bsteinhauer)

No.	Revision	Date	By

I hearby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the state of Minnesota.

Signature: Tony A. Nordby — Date: 04-22-2026

TONY A. NORDBY — License Number: 51392

HOUSTON engineering, inc.

Drawn by	Date
BLS	04-22-2026
Checked by	Scale
TAN	AS SHOWN

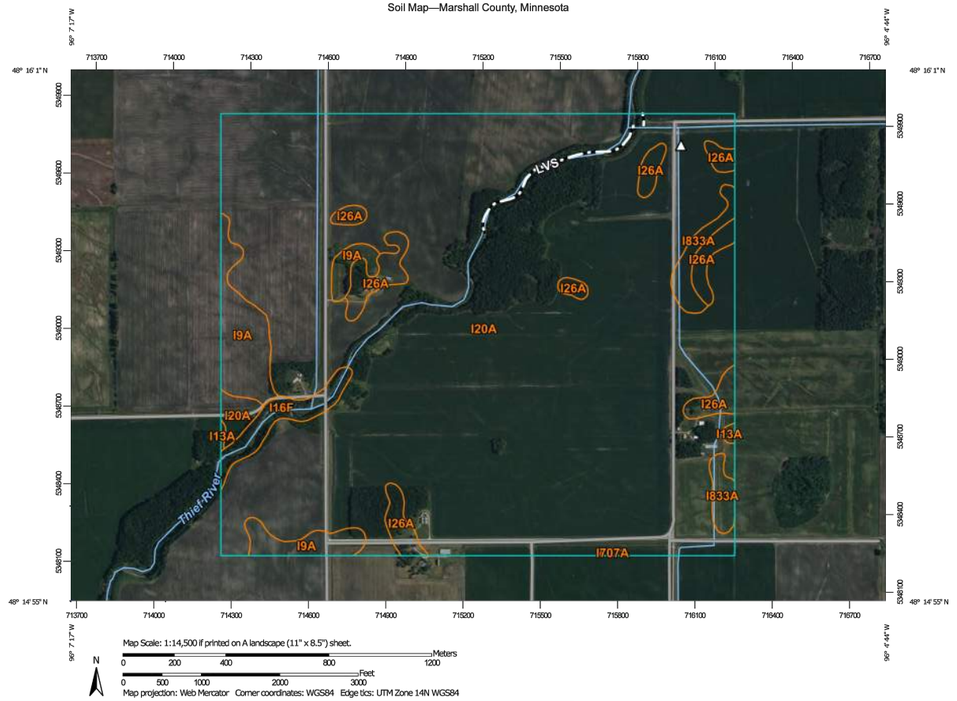
THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

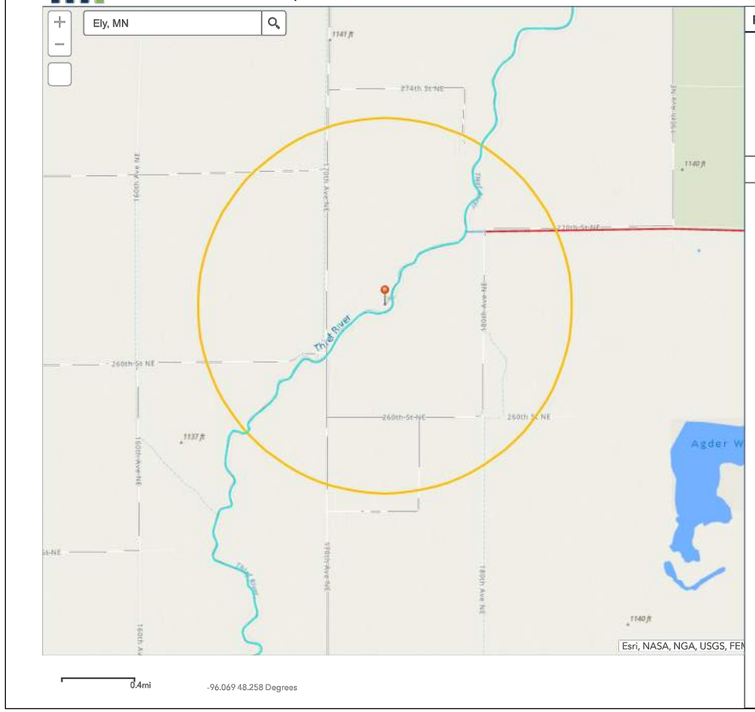
SWPPP3

PROJECT NO. 3655-0099-006

SHEET 23

HEI NO. 3655-0099-006





Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
I9A	Clearwater clay, 0 to 1 percent slopes	36.9	4.4%
I13A	Espelie fine sandy loam, clayey till substratum, 0 to 1 percent slopes	1.1	0.1%
I16F	Fluvaquents,frequently flooded-Hapludolls complex, 0 to 30 percent slopes	12.3	1.5%
I20A	Foxlake loam, 0 to 1 percent slopes	747.1	88.4%
I26A	Hamerly loam, 0 to 2 percent slopes	33.8	4.0%
I707A	Roliss-Vallers loams, 0 to 1 percent slopes	0.6	0.1%
I833A	Wildwood muck, 0 to 1 percent slopes	13.4	1.6%
Totals for Area of Interest		**845.2**	**100.0%**

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No.	Revision	Date	By

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Signature: Tony A. Nordby — Date: 04-22-2026

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HOUSTON engineering, inc.

Drawn by	Date
BLS	04-22-2026
Checked by	Scale
TAN	AS SHOWN

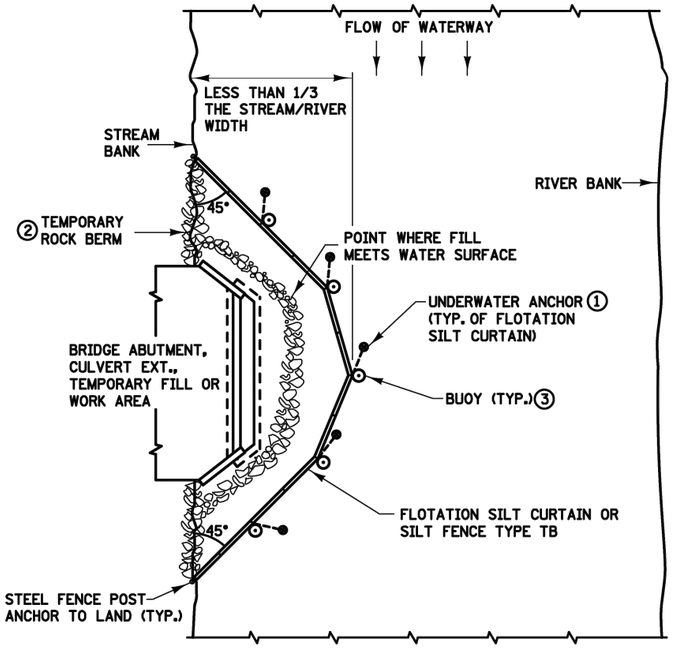
THIEF RIVER STREAM BANK STABILIZATION PROJECT
RED LAKE WATERSHED DISTRICT
SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY

SWPPP4

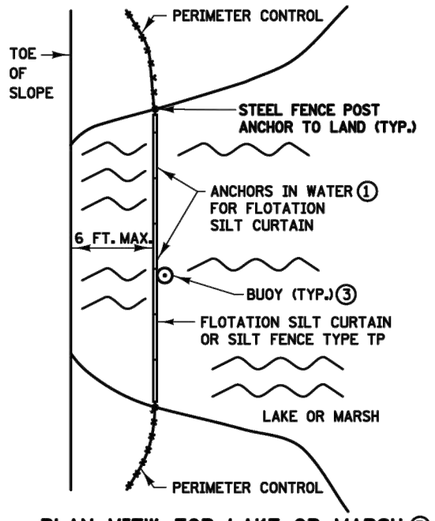
PROJECT NO. 3655-0099-006

SHEET 24

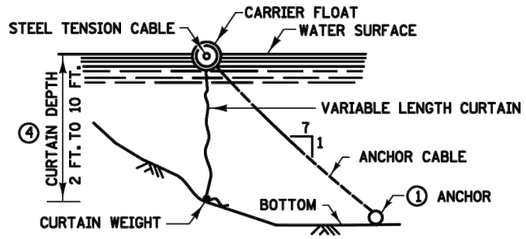
HEI NO. 3655-0099-006



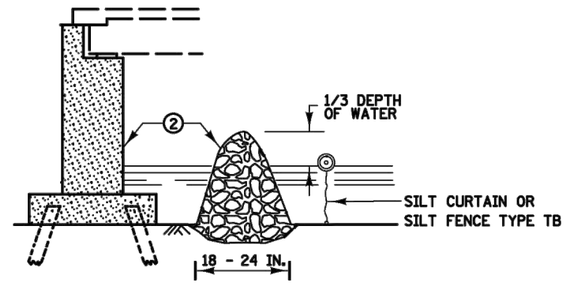
PLAN VIEW FOR STREAM ⑤



PLAN VIEW FOR LAKE OR MARSH ⑤



FLOTATION SILT CURTAIN



TEMPORARY ROCK BERM
FOR SEDIMENT CONTROL

INSTALLATION GUIDELINES
SILT FENCE TYPE TB

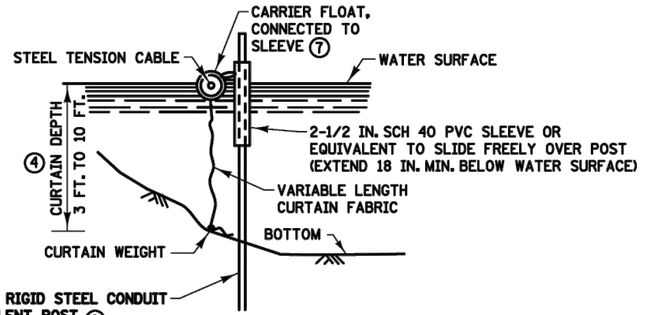
MINIMUM WATER DEPTH: 1 FT.
MAXIMUM WATER DEPTH: 3 FT.
MAXIMUM WATER VELOCITY: 5 FT./SEC.

INSTALLATION GUIDELINES ④
FLOTATION SILT CURTAIN
TYPE: STILL WATER

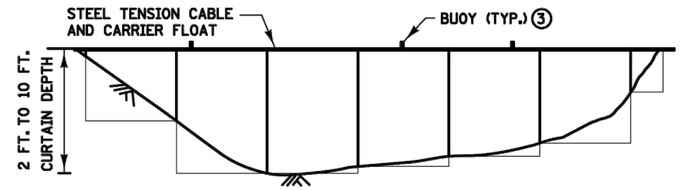
MINIMUM WATER DEPTH: 3 FT.
MAXIMUM WATER DEPTH: 10 FT.
MAXIMUM WATER VELOCITY: 2 FT./SEC.
MAXIMUM WAVE HEIGHT: 1 FT

INSTALLATION GUIDELINES ④
FLOTATION SILT CURTAIN
TYPE: MOVING WATER

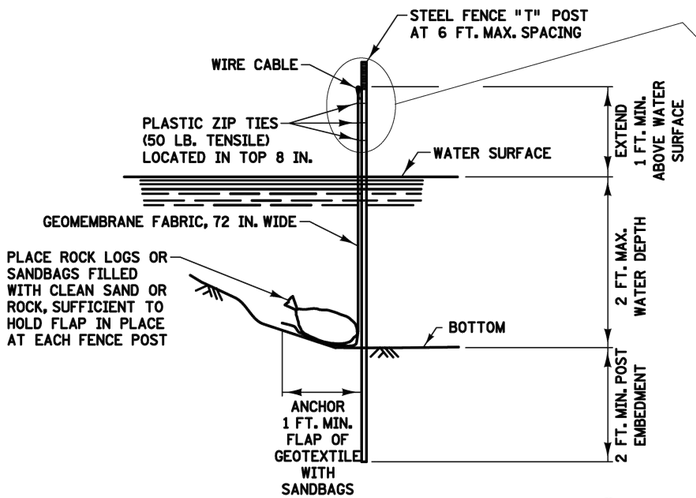
MINIMUM WATER DEPTH: 3 FT.
MAXIMUM WATER DEPTH: 10 FT.
MAXIMUM WATER VELOCITY: 5 FT./SEC.
MAXIMUM WAVE HEIGHT: 2 FT.



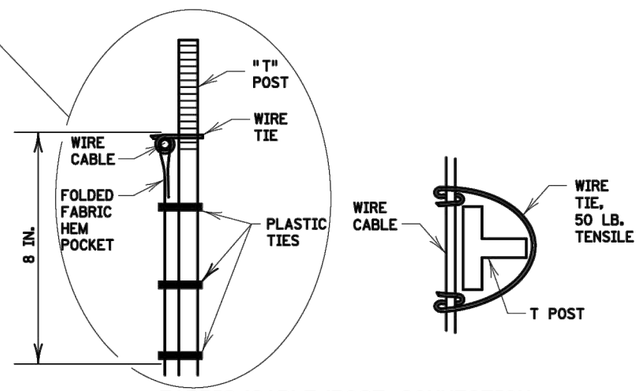
ALTERNATE FLOTATION SILT CURTAIN



FRONT VIEW FOR FLOTATION SILT CURTAIN



SILT FENCE TYPE TB ⑥



FABRIC/CABLE/POST CONNECTION

NOTES:

SEE SPECS. 2573, 3886, 3887 & 3893.

① FOR ANCHOR SPACING AND WEIGHT REQUIREMENTS, SEE SPEC. 2573.

② IN AREAS WHERE THE PLAN CALLS FOR RIPRAP AT A BRIDGE, CULVERT, OR SLOPE, A TEMPORARY ROCK BERM CONSTRUCTED FROM THE RIPRAP CAN BE USED TO PROVIDE ADDITIONAL PROTECTION. WHEN THE WORK IS COMPLETE THE RIPRAP CAN THEN BE MOVED TO THE PERMANENT LOCATION INDICATED IN THE PLANS. THE TEMPORARY ROCK BERM IS INCIDENTAL.

③ ON U.S. COAST GUARD OR OTHER MOTORIZED WATERWAYS, BUOYS ARE REQUIRED TO MARK THE ENDS AND SPECIAL AREAS FOR VISIBILITY. PLACE BUOYS AS REQUIRED FOR NAVIGATIONAL PURPOSES.

④ MINIMUM WATER DEPTH APPLIES TO THE DEEPEST POINT ALONG THE FLOTATION SILT CURTAIN OR SILT FENCE TYPE TB FOR DETERMINING APPLICABILITY OF FLOTATION SILT CURTAIN OR SILT FENCE TYPE TB.

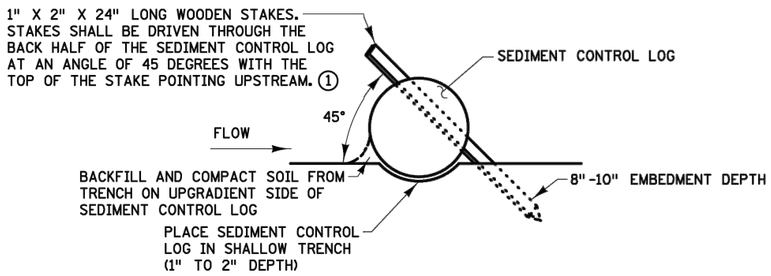
⑤ SILT CURTAIN SHOULD BE REMOVED WHEN THE AREA CONTRIBUTING DIRECT RUNOFF HAS BEEN TEMPORARILY OR PERMANENTLY STABILIZED. SILT CURTAIN SHOULD ALSO BE REMOVED BEFORE WINTER IF ICE UP OR ICE FLOW IS ANTICIPATED.

⑥ EMBED POST INTO BOTTOM A MINIMUM OF 40% OF THE WATER DEPTH (INCLUDING WAVE HEIGHT), BUT IN NO CASE SHALL EMBEDMENT BE LESS THAN 2 FEET.

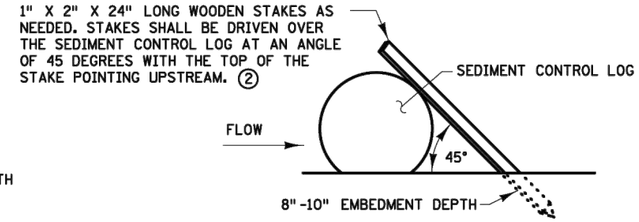
⑦ ANCHOR FLOAT MUST BE CONNECTED SECURELY TO SLEEVE WITH A MINIMUM TENSILE STRENGTH OF 100 LBS. CONNECTION METHOD MUST ALLOW FOR SLEEVE TO MOVE FREELY ON POST.

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

LEAD EXPERT OFFICE: LYNN CLARKOWSKI, CHIEF ENVIRONMENTAL OFFICER, OFFICE OF ENVIRNOMENTAL STEWARDSHIP		TEMPORARY SEDIMENT CONTROL SILT CURTAIN OR SILT FENCE TYPE TB	APPROVED: 02-28-2017 REVISED:	THOMAS STYRBICKI STATE DESIGN ENGINEER	STANDARD PLAN 5-297.405 — 1 OF 8
	DEPARTMENT OF TRANSPORTATION	THIEF RIVER STREAM BANK STABILIZATION PROJECT RED LAKE WATERSHED DISTRICT SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY	STD PLAN1	STATE PROJ. NO.	SHEET NO. 25
				TRUNK HWY.	TOTAL SHEETS 28

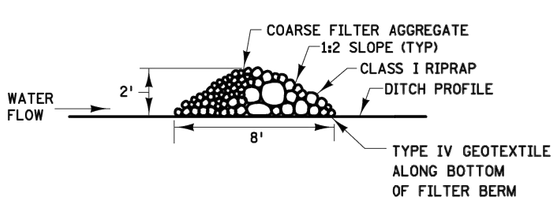


TYPES: STRAW, WOOD FIBER, OR COIR

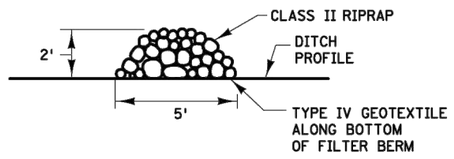


TYPES: WOOD CHIP, COMPOST, OR ROCK

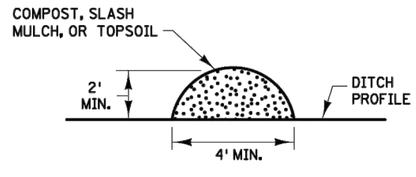
SEDIMENT CONTROL LOGS



TYPE 3 (ROCK WEEPER)

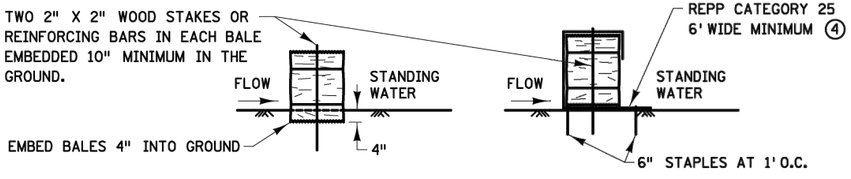


TYPE 5 (ROCK)



TYPE 1 (COMPOST), TYPE 2 (SLASH MULCH), OR TYPE 4 (TOPSOIL)

FILTER BERMS



EMBEDMENT METHOD

REPP (BLANKET) METHOD (ALTERNATE)

BALE BARRIERS(3)

NOTES:

REPP = ROLLED EROSION PREVENTION PRODUCT.

SEE SPECS. 2573, 3149, 3874, 3882, 3885, 3886, AND 3897.

(1) SPACE BETWEEN STAKES SHALL BE A MAXIMUM OF 1' FOR DITCH CHECKS OR 2' FOR OTHER APPLICATIONS.

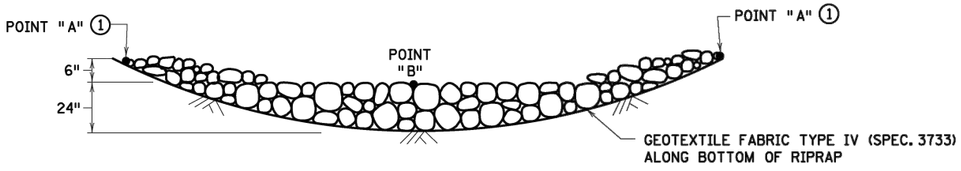
(2) PLACE STAKES AS NEEDED TO PREVENT MOVEMENT OF SEDIMENT CONTROL LOGS PLACED ON SLOPES OR AS NEEDED DUE TO OTHER FACTORS. STAKES SHALL BE INCIDENTAL.

(3) TO BE USED FOR CRITICAL PERIMETER CONTROL AREAS WHERE STANDING WATER OCCURS (6" MAXIMUM DEPTH). BALES SHALL CONSIST OF TYPE 1 MULCH OF APPROXIMATELY 14" X 18" X 36" LONG. BALES SHALL BE PLACED ON EDGE AND BUTTED TIGHT TO ADJACENT BALES.

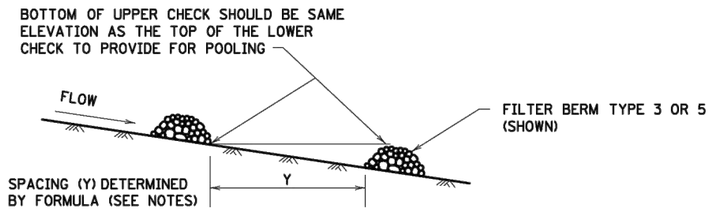
(4) INSTEAD OF TRENCHING, PLACE BALE ON THE REPP (BLANKET) AND WRAP BLANKET AROUND THE BALE. PLACE STAKE THROUGH BALE AND BLANKET.

LEAD EXPERT OFFICE	MARNI KARNOWSKI CHIEF ENVIRONMENTAL OFFICER OFFICE OF ENVIRNOMENTAL STEWARDSHIP	TEMPORARY SEDIMENT CONTROL FILTER BERMS, SEDIMENT CONTROL LOGS, AND BALE BARRIERS	APPROVED: 01-08-2020 REVISED:	THOMAS STYRBICKI STATE DESIGN ENGINEER	STANDARD PLAN 5-297.405	2 OF 8
	DEPARTMENT OF TRANSPORTATION	THIEF RIVER STREAM BANK STABILIZATION PROJECT RED LAKE WATERSHED DISTRICT SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY	STD PLAN2	STATE PROJ. NO.	SHEET NO. 26	
				TRUNK HWY.	TOTAL SHEETS 28	

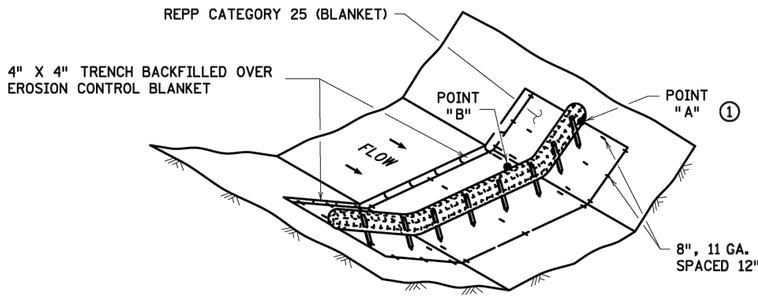
HEI NO. 3655-0099-006

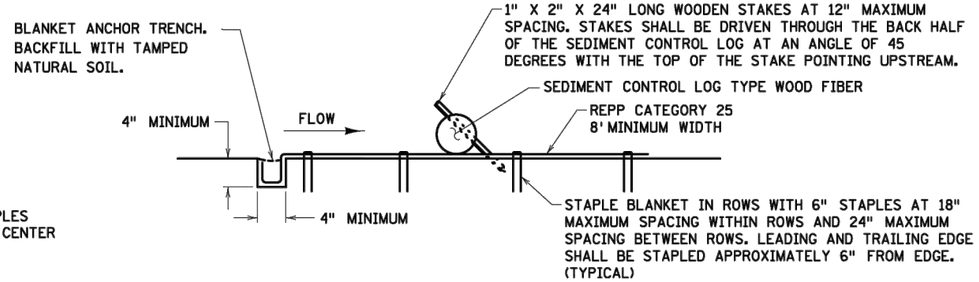


ROCK DITCH CHECKS
FILTER BERMS TYPE 3 (ROCK WEEPER) OR FILTER TYPE 5 (ROCK) ③
FOR USE ON ROUGH-GRADED AREAS
ONLY FOR USE OUTSIDE CLEAR ZONE ②

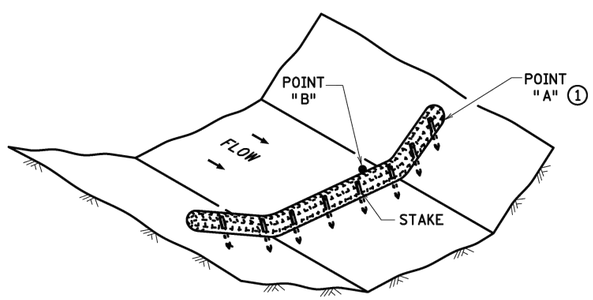


DITCH CHECK SPACING
FOR ALL FILTER BERM TYPES





SEDIMENT CONTROL LOG TYPE REPP (BLANKET) SYSTEM ④



SEDIMENT CONTROL LOG TYPE WOOD FIBER, OR TYPE COMPOST ⑤
FOR USE ON ROUGH GRADED AREAS

NOTES:

REPP = ROLLED EROSION PREVENTION PRODUCT.

SEE SPECS. 2573, 3601, 3733, 3885, 3886 & 3889.

FOR DITCH CHECKS, PLACE SEDIMENT CONTROL LOG PERPENDICULAR TO FLOW AND IN A CRESCENT SHAPE WITH THE ENDS FACING UPSTREAM.

APPROXIMATE SPACING BETWEEN EACH DITCH CHECK SHOULD BE DETERMINED FROM THE FOLLOWING SPACING FORMULA:

$$\text{APPROXIMATE SPACING OF DITCH CHECKS (FT.)} = Y = \frac{\text{DITCH CHECK HEIGHT (FT.)}}{\text{\% CHANNEL SLOPE}} \times 100$$

① POINT "A" MUST BE A MINIMUM OF 6" HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.

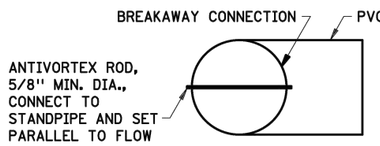
② ROCK DITCH CHECKS PLACED WITHIN THE CLEAR ZONE ARE TO BE 18" OR LESS IN HEIGHT. A 1:6 APPROACH AND DEPARTURE SLOPE SHALL BE PROVIDED.

③ DITCH GRADE 3% - 5%, MAX. FLOW VELOCITY 12 FT./SEC.

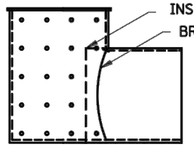
④ DITCH GRADE 1.5% - 3%, MAX. FLOW VELOCITY 4.5 FT./SEC.

⑤ DITCH GRADE 1.5% - 3%, MAX. FLOW VELOCITY 1.5 FT./SEC.

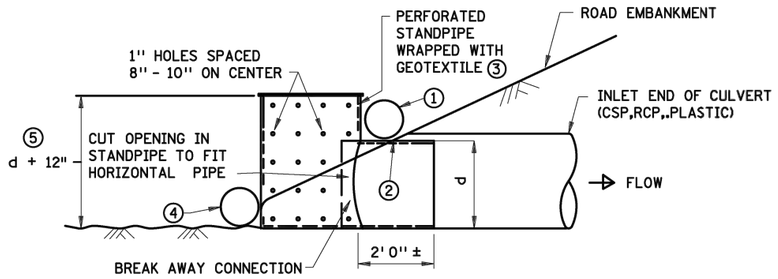
LEAD EXPERT OFFICE	MARNI KARNOWSKI CHIEF ENVIRONMENTAL OFFICER OFFICE OF ENVIRNOMENTAL STEWARDSHIP		TEMPORARY SEDIMENT CONTROL DITCH CHECK	APPROVED: 01-08-2020 REVISED:	THOMAS STYRBICKI STATE DESIGN ENGINEER	STANDARD PLAN 5-297.405	3 OF 8
	DEPARTMENT OF TRANSPORTATION	THIEF RIVER STREAM BANK STABILIZATION PROJECT RED LAKE WATERSHED DISTRICT SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY	STD PLAN3	STATE PROJ. NO.	SHEET NO.	27	
				TRUNK HWY.	TOTAL SHEETS	28	



PLAN VIEW



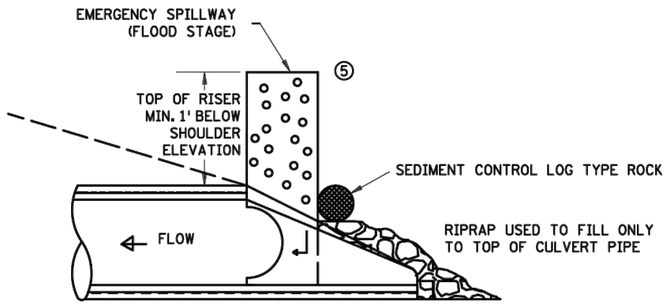
CULVERT STANDPIPE



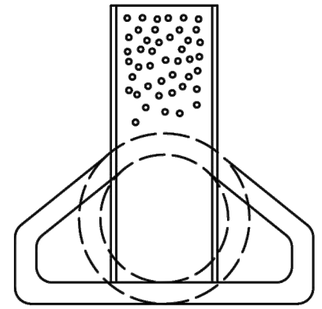
ELEVATION VIEW OF CULVERT INSTALLATION

CULVERT STANDPIPE INSERT (D-RISER)

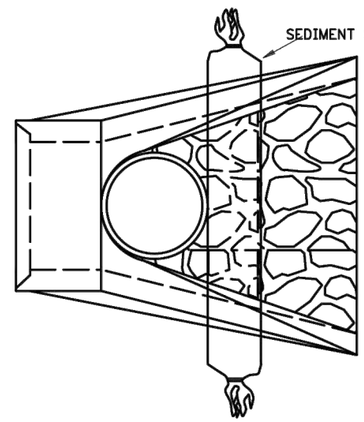
d= CULVERT SIZE: 12" - 36"



LONGITUDINAL SECTION



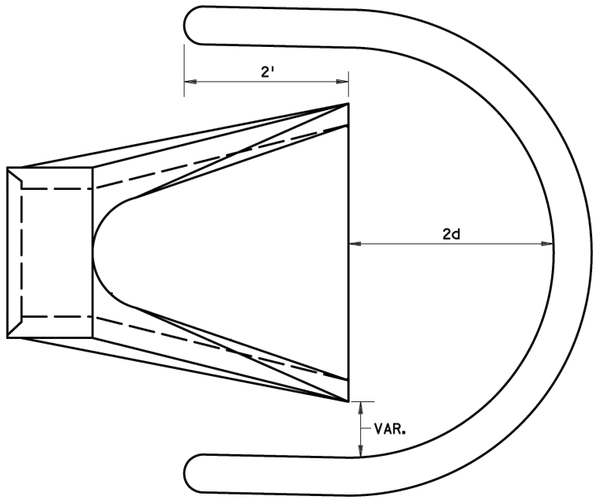
END VIEW



NOTE: SEDIMENT CONTROL LOG TYPE ROCK MAY BE WRAPPED AROUND RISER

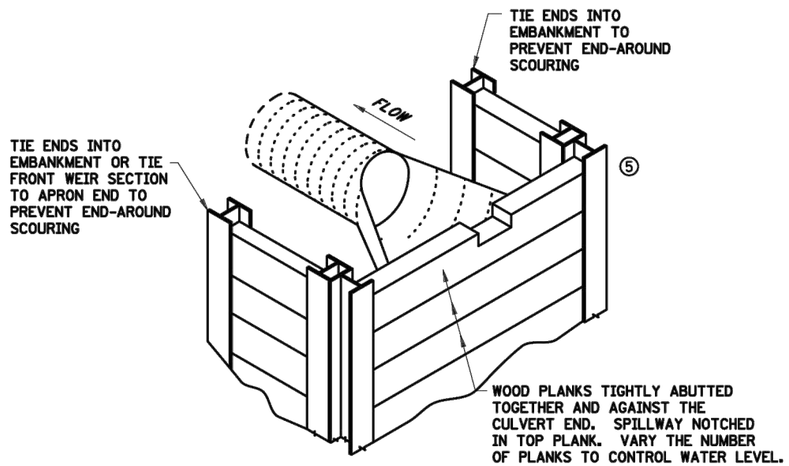
TOP VIEW

CULVERT STANDPIPE INSERT (D-RISER)



SEDIMENT CONTROL LOG WEIR (COMPOST, WOOD CHIP, OR ROCK)

d = CULVERT SIZE: 12"-36"



WOOD PLANK WEIR

NOTES:

SEE SPECS. 2573, 3891 & 3893.

FOR USE WHEN TEMPORARY PONDING IS NEEDED IN DITCH SECTIONS FOR SEDIMENT CONTROL.

MANUFACTURED ALTERNATIVES LISTED ON MnDOT'S APPROVED PRODUCTS LIST MAY BE SUBSTITUTED AT NO ADDITIONAL COST.

① ROCK LOG OR SANDBAG TO HOLD STANDPIPE AND ACT AS A SEAL BETWEEN RISER PIPE AND CULVERT.

② PLACE CULVERT APRON AND SLIDE TEMPORARY STANDPIPE INTO CSP OR RCP CULVERT.

③ ALL GEOTEXTILE USED FOR CULVERT PROTECTION SHALL BE MONOFILAMENT IN BOTH DIRECTIONS, MEETING SPEC. 3886 FOR MACHINE SLICED.

④ ROCK LOG OR RIP RAP TO HOLD STANDPIPE AND ACT AS A FILTER BETWEEN RISER PIPE AND CULVERT.

⑤ HEIGHT OVERFLOW NOT TO CAUSE FLOODING OF ROAD OR ADJACENT PROPERTIES.

LEAD EXPERT OFFICE: LYNN CLARKOWSKI, CHIEF ENVIRONMENTAL OFFICER, OFFICE OF ENVIRNOMENTAL STEWARDSHIP		TEMPORARY SEDIMENT CONTROL CULVERT END CONTROLS	APPROVED: 02-28-2017 REVISED:	THOMAS STYRBICKI STATE DESIGN ENGINEER	STANDARD PLAN 5-297.405	8 OF 8
DEPARTMENT OF TRANSPORTATION	THIEF RIVER STREAM BANK STABILIZATION PROJECT RED LAKE WATERSHED DISTRICT SEC. 24 & 25 EXCEL TWP., SEC. 7 AGDER TWP., MARSHALL COUNTY	STD PLAN4	STATE PROJ. NO.	SHEET NO.	28	
			TRUNK HWY.	TOTAL SHEETS	28	

Viewers Report
IMPROVEMENT OF POLK County Ditch 39
Red Lake Watershed District
Ditch 17 - Project #179
01-20-2020
Updated 4/7/2026

Prepared by:

Rob Wagner
Roger Beiswenger
Mike Baumgartner

Definitions:

- **Drainage Authority.** *"Drainage Authority" means the board or joint drainage authority having jurisdiction over a drainage system or project.*

- **Benefits.** *"Benefits" means improvement of properties in terms of increased value, increased production capacity, and / or increased utility resulting from the construction of the public and private drainage system.*

Petition for Drainage Improvements PCD #39

➢. Farm operators held meetings following wet conditions in 2016 resulted in a petition filed with the Red Lake Watershed to construct an improvement project.

➢The petition was prepared by legal counsel and filed with the Board of Managers of the Red Lake Watershed District in accordance with Minnesota Statutes 103E.215. A copy of the signed petition is included in the engineers report Exhibit A.

1912

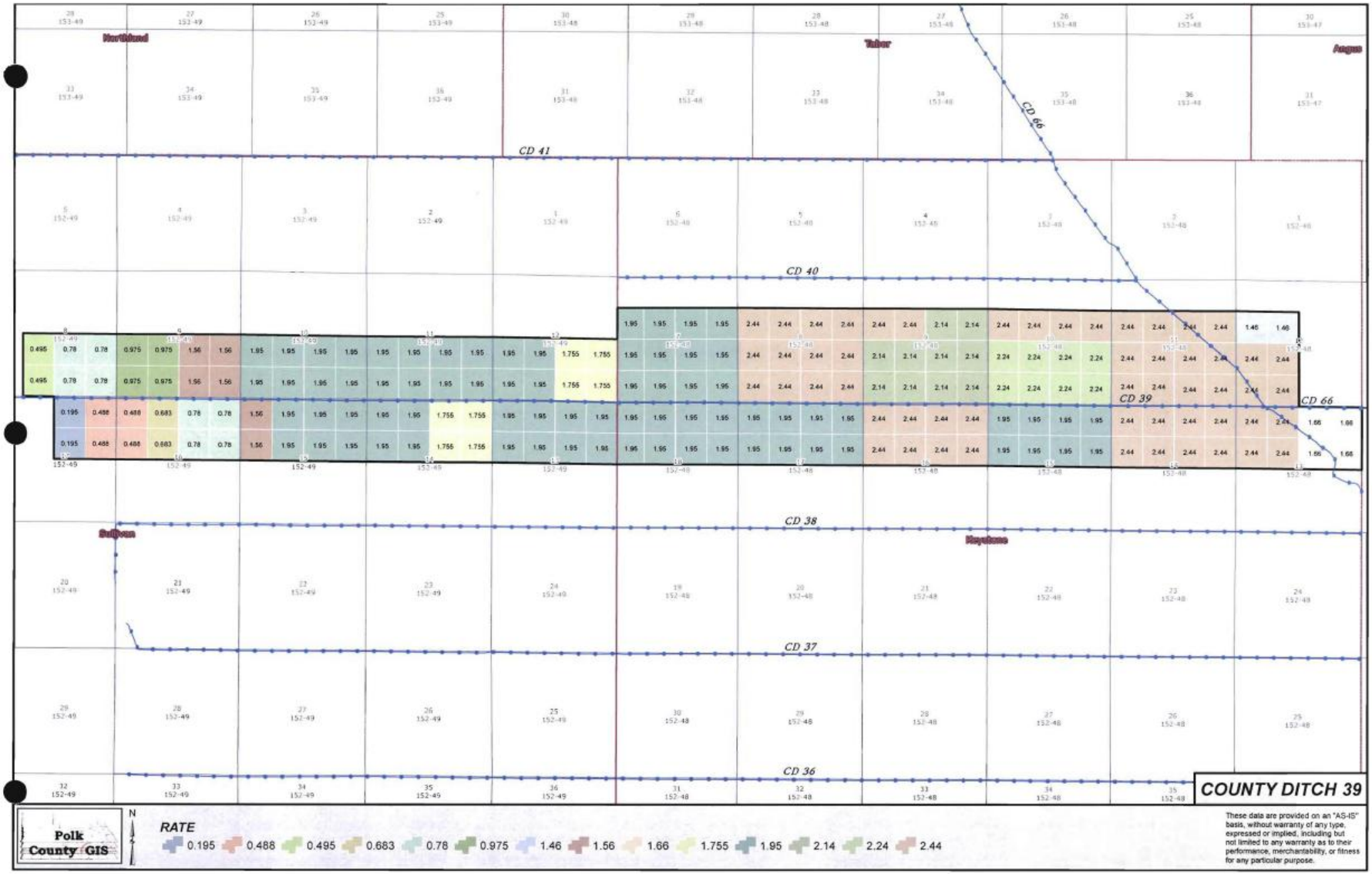
Overview

- Oath of Office – March 25,2026 MSA 103E.305
  - Rob Wagner, East Grand Forks, MN
  - Roger Beiswenger, Fisher, MN
  - Mike Baumgartner, Roseau, MN

Benefits Process

- Review historic drainage system records including original plans/profiles/surveys/reports used to create the original drainage system.
- Identify lands/properties currently utilizing the drainage system.
- Review contour maps, aerial photos , LIDAR and other data to determine drainage patterns and boundaries.
- Evaluate land use within the drainage system including those lands restricted from receiving drainage benefits (wetlands).
- Determine property values based similar groups of property/classifications.
- Identify existing ditch right of way.
- Identify areas for the establishment of the 1 rod grass strip & the amount of the damage payment(s) .

CURRENT Benefit map Polk County Ditch 39



Benefit map FOR Polk County Ditch 66

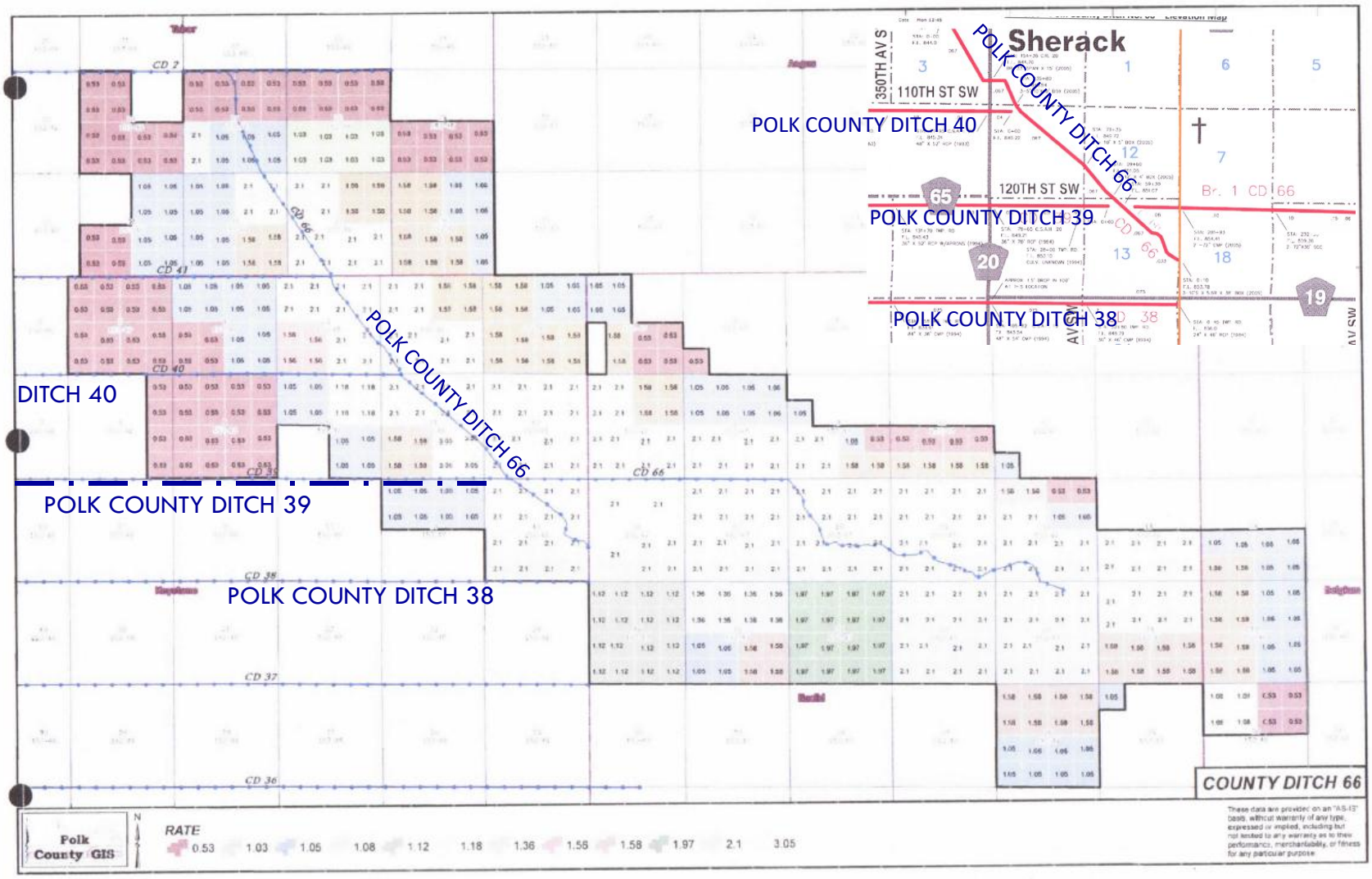
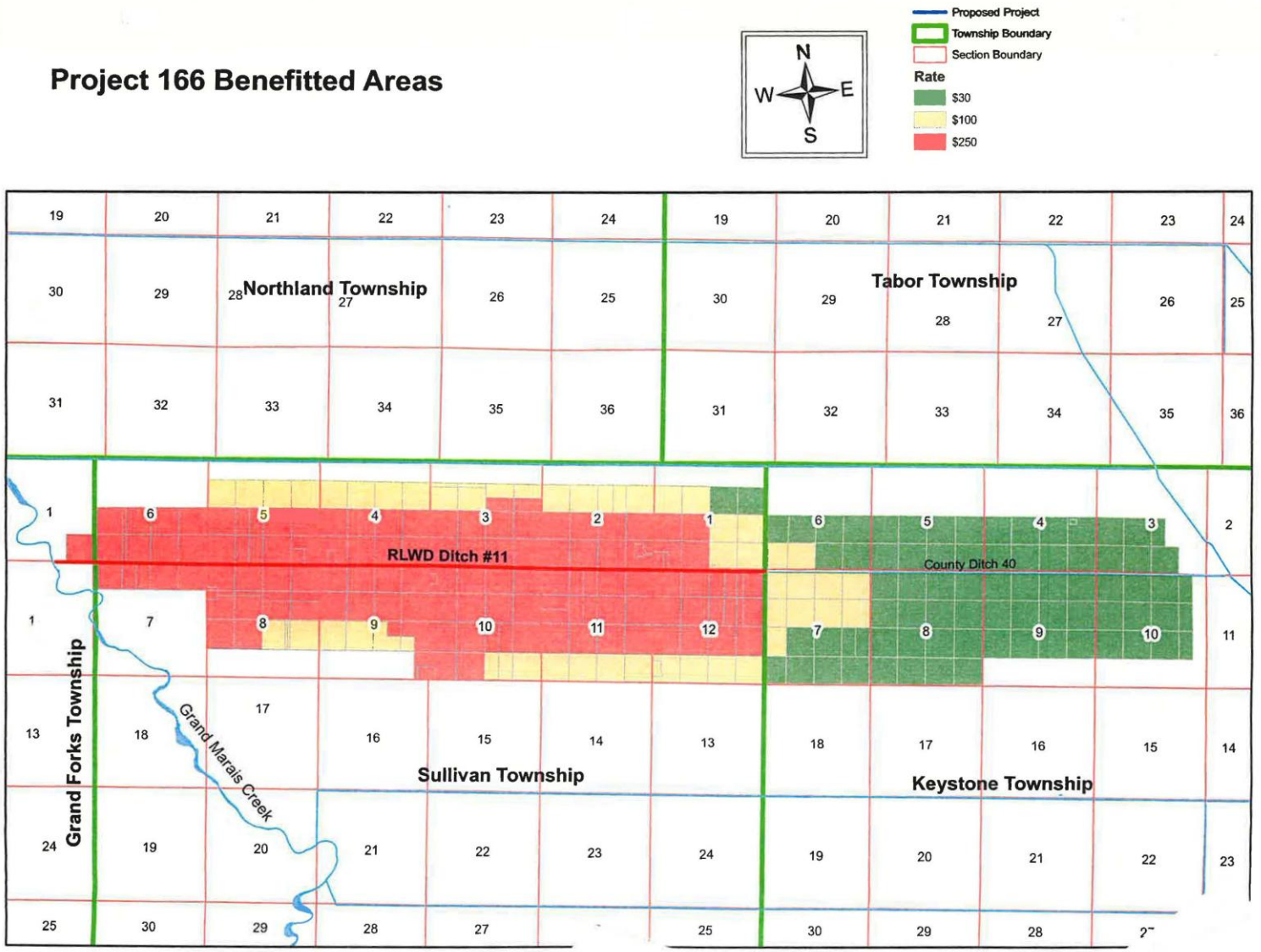


Exhibit E - Benefit Map - Polk County Ditch No. 66

CURRENT Benefit map RLWD Ditch 11/PCD# 40

Year 2006



Extent and Basis of Benefits

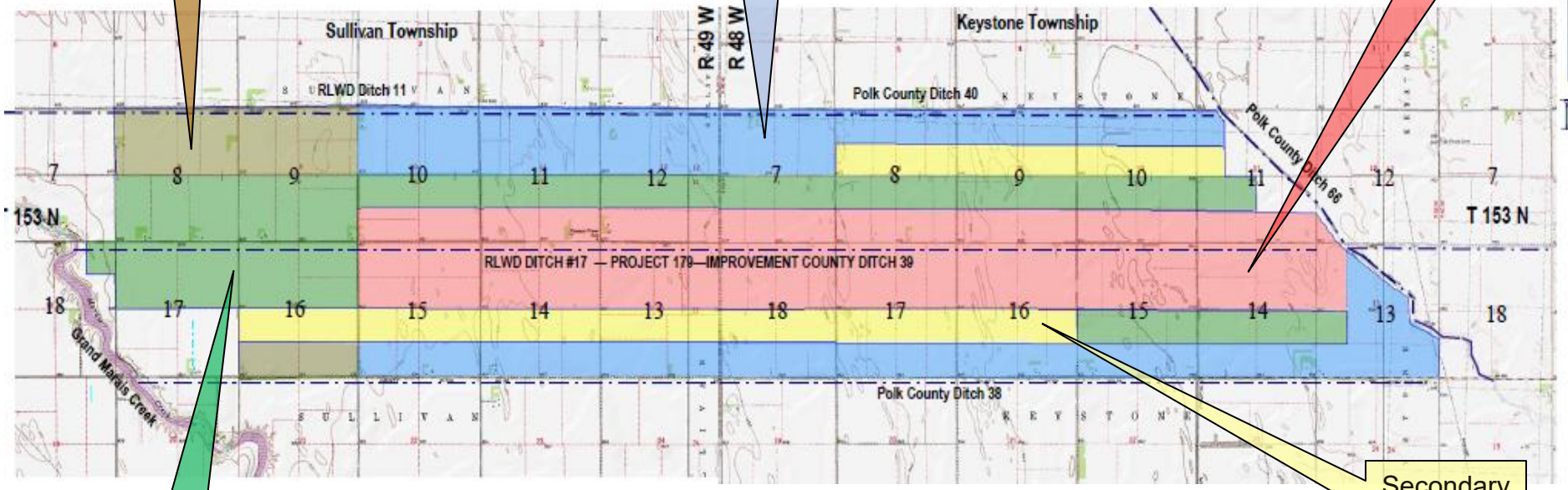
- Factors used in Analysis:
  - Updated Land values, extracted sales data and land use.
  - drainage system IN ITS CURRENT 3 YEAR design
  - drainage in its proposed 10-year design
  - private improvement cost
  - Topography AND proximity FACTORS *(Direct vs. Indirect)*
  - *secondary outlets*
  - Landowner meetings (July 11, 2019)

Benefits TO LANDS

Secondary Outlet @ $52.00

Secondary Outlet @ $105.00

AG-1 Cropped @ $500.00

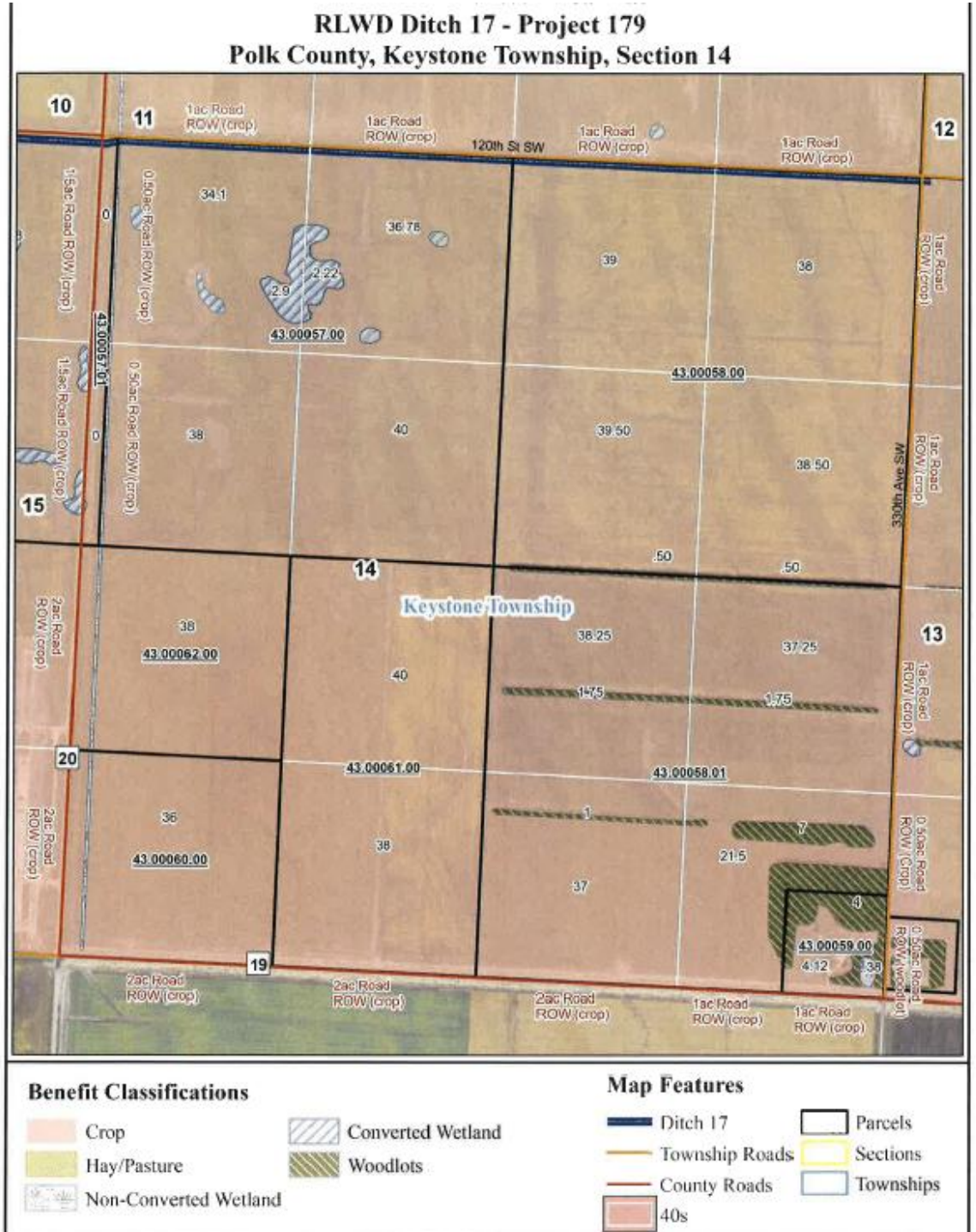


AG-2 Cropped @ $325.00

Secondary Outlet @ $210.00

AREA 1	$ 500.00/AC - CLASS A (AG1-CROPPED)
AREA 2	$ 325.00/AC - CLASS A (AG2-CROPPED)
AREA 3	$ 210.00/AC - OUTLET BENEFIT 1
AREA 4	$ 105.00/AC - OUTLET BENEFIT 2
AREA 5	$ 52.00/AC - OUTLET BENEFIT 3
	$ 52.00/AC - CLASS "C" (WOODLOTS / CONSERVATION)
	$1300.00/AC - CLASS "E" (CONVERTED WETLANDS)

Plat Maps
Land Classifications



OTHER BENEFITS

WETLANDS

USDA FARM PROGRAM - WETLAND CONSERVATION ACT

- The Food Security Act of 1985 brought the USDA back into the drainage arena. The swamp buster provisions if violated, can result in denial of agricultural subsidies and other government benefits.

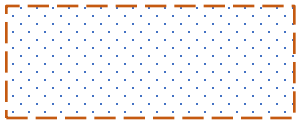
- Wetland Conservation Act. Included wetlands defined as lands with a predominance of hydric soils that are inundated or saturated for a duration sufficient to support the prevalence of hydrotropic vegetation.

"Wetlands regulated by federal or state law should not be subjected to drainage benefits if the drainage constitute a conversion under current "swamp buster" provisions".

Other Land Classifications

(Location within entire area)

Class E – Conservation/Woodlot $52.00/acre Benefit

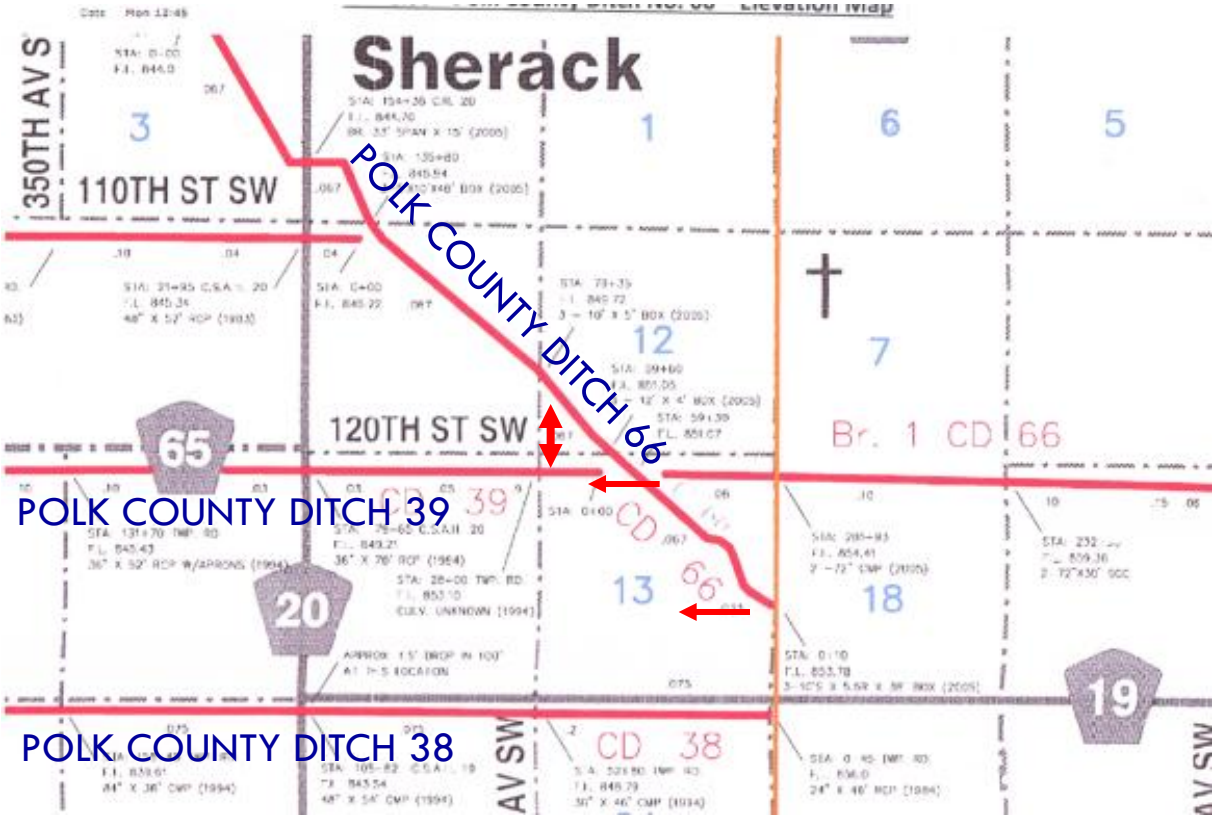


Class F – NWI Non-Converted Wetland $0.00/acre Benefit

Class G – NWI Converted Wetland $1,300.00/acre Benefit

* SOURCE DOCUMENT NATIONAL WETLAND MAPS

OUTLET BENEFITS POLK COUNTY DITCH 66 $372,000.00



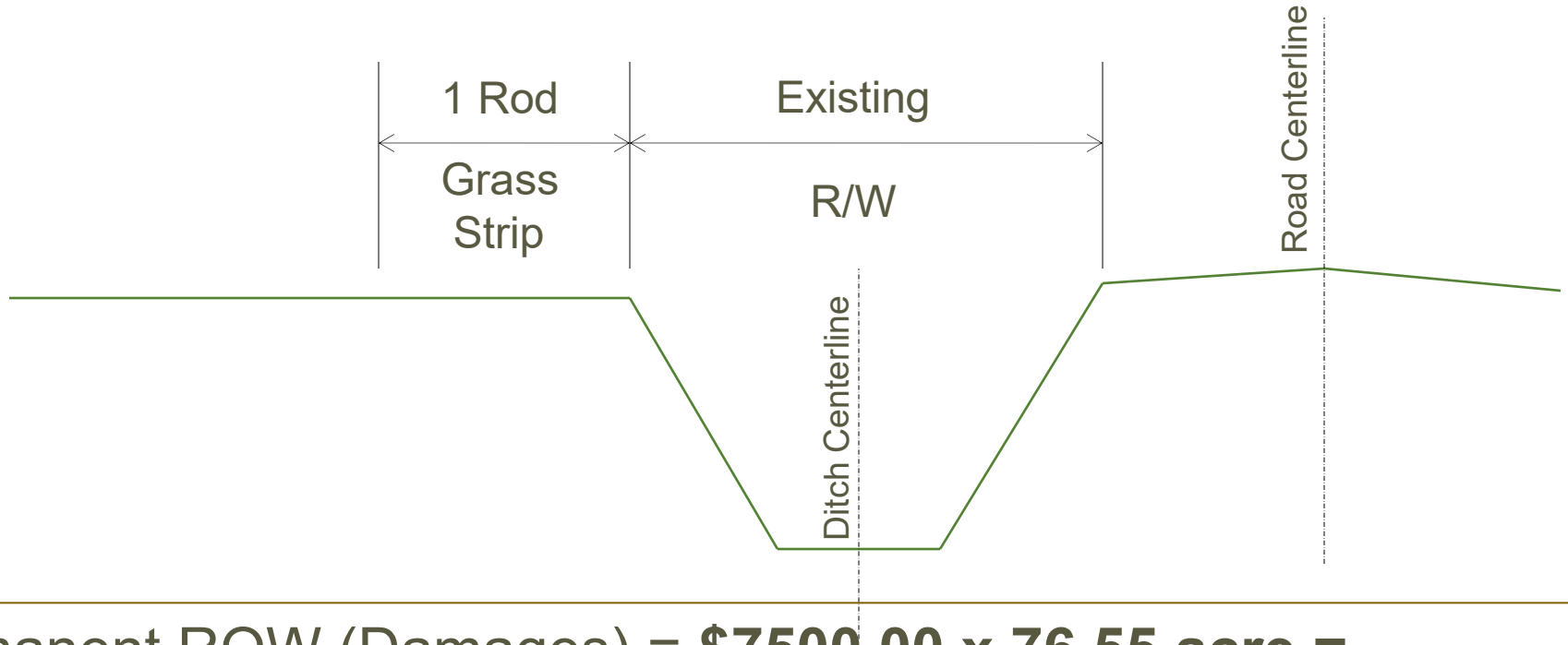
- One time outlet fee
- Based on cost to improvement to accommodate current condition

Benefits to Roads & Corporations

Benefits to Roads & Corporations

Polk County Highway	225.00 AC	= $	88,085.00
Sullivan Township	97.00 AC	= $	19,009.00
Keystone Township	109.85 AC	= $	29,504.25

Right of way
1 Rod Grass Strip
MN Legislature passed into Law 1977



Permanent ROW (Damages) = **$7500.00 x 76.55 acre = $574,125.00**

Temporary Construction ROW = **$400.00 x 107.84 = $43,136.00**

Total Damages = **$617,261.00**

Final Report - Benefits

Benefits to Land =	$3,437,916.09		
Benefits to Roads & Corporations			
Polk County Highway	225.00 AC	= $	88,085.00
Sullivan Township	97.00 AC	= $	19,009.00
Keystone Township	109.85 AC	= $	29,504.25
Outlet Benefits Polk County Ditch #66		= $	372,000.00
Total Roads & Corporations =		$	508,598.25

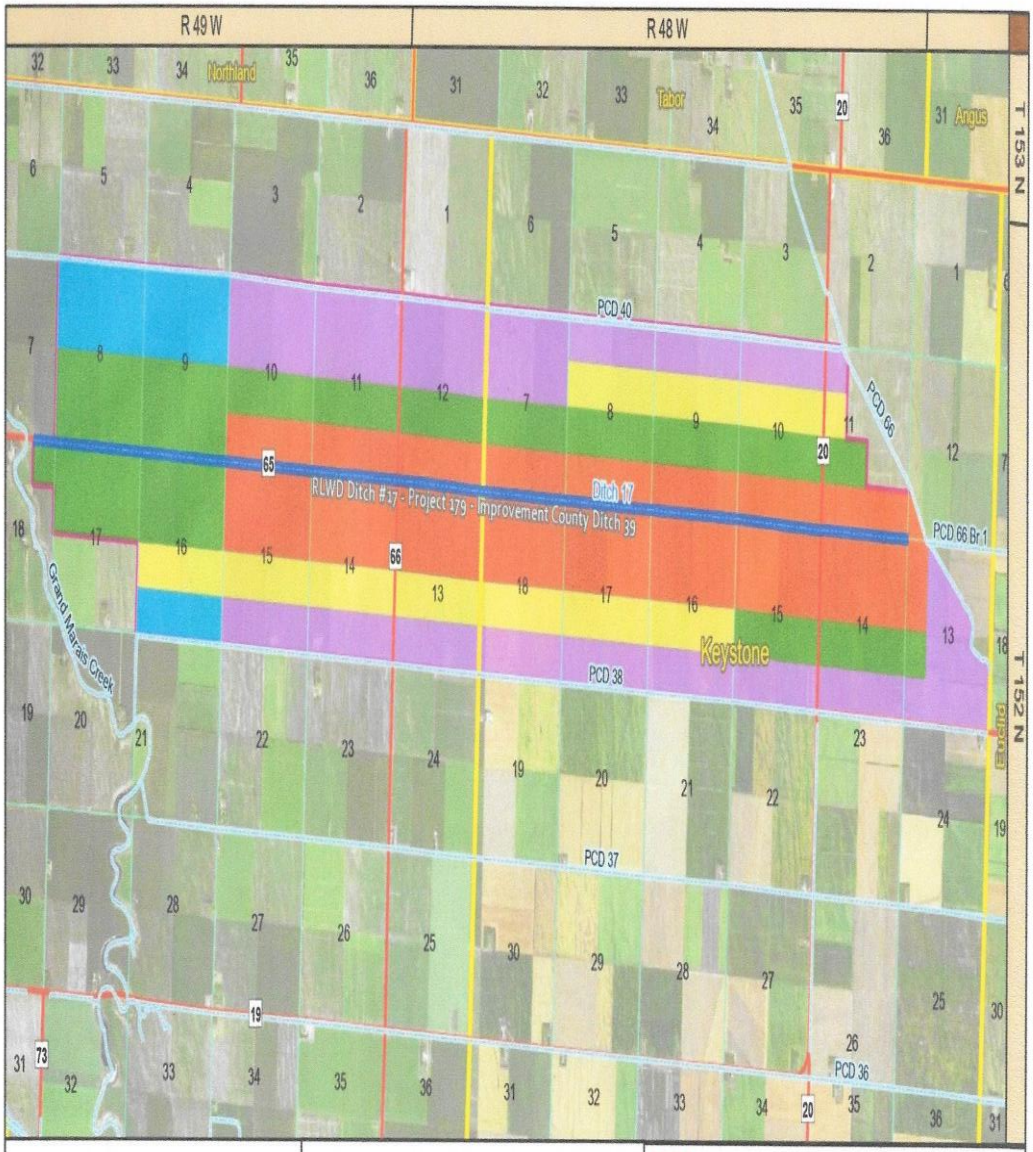
Grand Total Benefits = $3,946,514.34

Tax Lien for $3,912,780 improvement

Benefits							4/7/2026
Classification	Acres	Levy Rate	Benefit Rate per Acre	Benefit	Cost / Levy rate per acre	Assessment per acre based on 20 year amortization	Cost by Category
Area 1 - Agriculture (tillable)	3,569.99	0.990562539	$500.00	$1,784,995.00	$495.28	$24.76	$1,768,149.18
Area 2 - Agriculture (tillable)	2,782.58	0.990562539	$325.00	$904,338.50	$321.93	$16.10	$895,803.84
Area 3 - Agriculture (tillable)	1,595.42	0.990562539	$210.00	$335,038.20	$208.02	$10.40	$331,876.29
Area 4 - Agriculture (tillable)	3,173.91	0.990562539	$105.00	$333,260.55	$104.01	$5.20	$330,115.42
Area 5 - Agriculture (tillable)	740.27	0.990562539	$52.00	$38,494.04	$51.51	$2.58	$38,130.75
Converted Wetland	25.28	0.990562539	$1,300.00	$32,864.00	$1,287.73	$64.39	$32,553.85
Woodlot/Conservation	171.65	0.990562539	$52.00	$8,925.80	$51.51	$2.58	$8,841.56
Non Converted Wetland	1.86	0.990562539	$0.00	$0.00	$0.00		$0.00
Polk County Roads	225.00	0.990562539		$88,085.00	$87,253.70	Lump Sum	$87,253.70
Sullivan Township Roads	97.00	0.990562539		$19,009.00	$18,829.60	Lump Sum	$18,829.60
Keystone Township Roads	109.85	0.990562539		$29,504.25	$29,225.80	Lump Sum	$29,225.80
Outlet Benefit (one time) CD#66	*22,240		7.68 (varies +/-)	$372,000.00	$372,000.00	Lump Sum	$372,000.00

- Based on a 20-year amortization
- Interest is not included
- Actual costs may vary
- Based on Engineers estimated cost of project

IN SUMMARY



Damages

Permanent Ditch Right of Wat & 1 Rod Grass Strip = $7,500.00 x 76.55 acres = $574,125.00

Temporary Construction Right of Way = $400.00 x 107.84 acres = $43,136.00

Benefits to Land = $3,437,916.09

Benefits to Roads and Corporations

Polk County Highway	225.00	AC = $	88,085.00
Sullivan Township	97.00	AC = $	19,009.00
Keystone Township	109.85	AC = $	29,504.25
Outlet Benefits Polk County Ditch #66			$372,000.00

Total Roads and Corporations = $ 508,598.25

Grand Total Benefits = $3,946,514.34

- Area 1: $500.00/AC - CLASS A (AG1-CROPPED)
- Area 2: $325.00/AC - CLASS A (AG2-CROPPED)
- Area 3: $210.00/AC - OUTLET BENEFIT 1
- Area 4: $105.00/AC - OUTLET BENEFIT 2
- Area 5: $52.00/AC - OUTLET BENEFIT 3
- $52.00/AC - CLASS "C" (WOODLOTS /
- $1300.00/AC - CLASS "E" (CONVERTED WETLANDS)
- Drainage Ditch

Date 4/7/2026
Sheet 1 of 1
N.T.S

Red Lake Watershed District
RLWD Ditch 17 - Project 179

BENEFIT MAP

Prepared by: Roger Beiswegner, Rob Wagner, Mike Baumgartner

QUESTIONS???

APPRAISERS REPORT
IMPROVEMENT OF POLK COUNTY DITCH 39
RED LAKE WATERSHED DISTRICT DITCH 17-PROJECT NO 179
Dated 01-20-2020
Values updated 04-07-2026

At the February 26, 2026 Red Lake Watershed District Board meeting a motion was made to reappoint the Viewers to update and amend the viewers report to current values and for the engineer to update the construction cost. The 01-20-2020 Viewers Report has been updated to reflect the current values as of 04-07-2026.

The undersigned appraisers, appointed to appraise the benefits and damages to property affected by the Improvement of Polk County Ditch 39 - Red Lake Watershed District (RLWD) Ditch 17 - Project 179, including all property likely to be affected by the drainage system or that may be used or taken for grass buffer strips necessary to control erosion, sedimentation, improve water quality, or maintain the efficiency of the drainage system, as ordered by the Red Lake Watershed District (RLWD) Board of Managers. The Improvement of Polk County Ditch 39 - Red Lake Watershed District (RLWD) Ditch 17 - Project 179, is being performed in accordance with Minnesota Statute 103E.215.

The proposed project consists of the Improvement of Polk County Ditch 39 is described as beginning at a point 65 feet easterly of the northeast corner of Section 14, Township 152 North, Range 48 West (Keystone Township, Polk County) and proceeding westerly approximately 10.3 miles along the north lines of Sections 14,15, 16, 17 and 18, Keystone Township and along the north line of Sections 13, 14, 15, 16, 17 and 18, Township 152 North, Range 49 West (Sullivan Township, Polk County), to the easterly bank of the Grand Marais Creek that flows northerly through the Northeast Quarter of Section 18, Sullivan Township; A detailed description of the proposed alignment can be found in Appendix B of the engineers detailed survey report.

The undersigned appraisers, pursuant to the order of the Red Lake Watershed District Board of Managers, did meet preparatory to commencing duties on the 24th day of June, 2019 at the Red Lake Watershed District office at 1000 Pennington Avenue South, Thief River Falls, Minnesota. Having taken the oath as required by MSA 103E.305 to faithfully and impartially perform the appraiser duties, and having received charts, maps, original benefiting area determinations and diagrams, did view, all lands and properties affected by said proposed drainage system and further, we did determine the damages to lands and properties affected by establishment of a grass strip necessary to control erosion, sedimentation, improve water quality, or maintain the efficiency of the drainage system as a result of the Improvement of Polk County Ditch 39 - Red Lake Watershed District (RLWD) Ditch 17 - Project 179.

The land use within the benefiting area of the proposed project is primarily used for agricultural or agriculturally related purposes. The principal crops grown are row crops, hay and pasture for livestock.

We were able to determine the boundaries of the benefiting area by viewing topographic maps along with visually viewing the project area. Property owners were interviewed in the process of determining drainage practices and patterns. We viewed the County Assessor's records and aerial photo maps to determine the number of acres of tillable, non-tillable land and building sites, in each forty, government lot, and all other tracts of land.

We have determined the extent and basis of benefits as prescribed under MSA 103E.315.

In accordance with MSA 103E.321, Subd. 1 (1), we have indicated in tabular form each lot, 40-acre tract, under separate ownership that is benefited or damaged, which is attached herewith.

We have shown the number of acres in each tract or lot (MSA 103E.321 Subd. 1 (3).

We have found no acres added to a tract or lot by the proposed drainage of public waters (MSA 103E.321, Subd. 2. (4).

We found no damage to riparian rights (MSA 103E.321, Subd. 1. (5).

We have found no acres or amount of benefits being assessed for drainage of area before the drainage benefits could be realized would require a public work permit to work in public waters under section MSA 103G.245 to excavate or fill a navigable water body under United States Code, Title 33, Section 1344 (Subd.1. (8)).

We have identified wetlands utilizing the National Wetland Inventory Maps and have assessed drainage benefits to only those wetlands that in our analysis would be considered conversion of a wetland under United States Code, Title 16, Section 3821, and are currently in agricultural production (Subd. 1. (9)).

Permanent Right of Way will be acquired and, therefore damages will be awarded for the establishment of permanent right of way necessary to control erosion, sedimentation, improve water quality, or maintain the efficiency of the drainage system and for the same reason we found damages, (MSA 103E.321, Subd. 1. (6)), for grass strips as required in (MSA 103E.021).

We have determined direct and indirect benefits on and related to proposed Improvement of Polk County Ditch 39 - Red Lake Watershed District (RLWD) Ditch 17 - Project 179.

Direct Benefits Agricultural Property Area 1

Using the direct market value approach, we have analyzed direct sales data for competitive properties from the market place. The existing market value was determined for property and compared with proposed 10-year channel capacities used for determining values having direct drainage benefits on the proposed Improvement of Polk County Ditch 39 - Red Lake Watershed District (RLWD) Ditch 17 - Project 179, in Area 1. Additional consideration was given to drainage requirements required to achieve these benefits. We have determined that the Improvement of Polk County Ditch 39 - Red Lake

Watershed District (RLWD) Ditch 17 - Project 179, provides a benefit at the rate of $500.00/acre for Class A cropland.

Direct Benefits Agricultural Property Area 2

Using the direct market value approach, we have analyzed direct sales data for competitive properties from the market place. The existing market value was determined for property and compared with proposed 10-year channel capacities used for determining values having direct drainage benefits in Area 2 of the proposed Improvement of Polk County Ditch 39 - Red Lake Watershed District (RLWD) Ditch 17 - Project 179. Additional consideration was given to drainage requirements required to achieve these benefits, and similarities in the elevation consistent with those lands within Area 2. For these lands we have determined that the Improvement of Polk County Ditch 39 - Red Lake Watershed District (RLWD) Ditch 17 - Project 179, provides a benefit at the rate of $325.00/acre for Class A cropland.

Indirect Benefits Area 3, Area 4 and Area 5

We have determined the proposed improvement of Polk County Ditch 39 - Red Lake Watershed District (RLWD) Ditch 17 - Project 179 provides an improved outlet for the properties in Areas 3; Area 4 and Area 5. We have considered the extent of the benefits from the improvement of Polk County Ditch 39 - Red Lake Watershed District (RLWD) Ditch 17 - Project 179, will provide a secondary outlet thereby improving these properties drainage. We have considered improved outlet conditions based on elevation and proximity for similar lands. For these lands we have determined that the Improvement of Polk County Ditch 39 - Red Lake Watershed District (RLWD) Ditch 17 - Project 179, provides a benefit at the rate of $210.00/acre for Area 3; $105.00/acre for Area 4 and $52.00/acre for Area 5.

Prior Converted Wetlands

The Viewers utilized the National Wetland Inventory Maps to identify prior converted wetlands within the project area. Current and historic aerial imagery was used to determine if the properties were prior converted. Consideration was given to the value of the properties in the improved (agricultural) and unimproved condition (wetland). Additional consideration was given to any drainage requirements required to achieve the conversion. For these lands we have determined that the Improvement of Polk County Ditch 39 - Red Lake Watershed District (RLWD) Ditch 17 - Project 179, provides benefits at the rate of $1,300.00/acre.

Non-Converted Wetlands

The Viewers utilized the National Wetland Inventory Maps and aerial imagery to identify any potential non-converted wetlands within the project area that would be considered as wetlands (undrained condition). For these lands it was determined that the Improvement of Polk County Ditch 39 - Red Lake Watershed District (RLWD) Ditch 17 - Project 179, provides $0.00/acre benefit.

Conservation Lands/Woodlots

Utilizing the Minnesota Public Drainage Manual we have determined that the proposed improvement of Polk County Ditch 39 - Red Lake Watershed District (RLWD) Ditch 17 - Project 179 provides an outlet for these properties at the rate of $52.00/acre.

Benefits to Roads

Benefits to roads were calculated at the same rate as to adjacent agricultural benefits:

Polk County Highway Roads	225 Acres	$88,085.00
Sullivan Township	97 Acres	$19,009.00
Keystone Township	109.85 Acres	$29,504.25

Outlet Benefits to Polk County Ditch 66

It was determined that Polk County Ditch 66 is currently contributing flows to Polk County Ditch 39 and utilizing the system as a partial outlet. The engineer has examined the nature and extent of flows that can enter Polk County Ditch 39 from Polk County Ditch 66. For the 10-year design of the Improvement of Polk County Ditch 39 - Red Lake Watershed District (RLWD) Ditch 17 - Project 179, the engineer originally determined an additional cost of $200,000.00 is required to handle the current flows arriving from Polk County Ditch 66. The Viewers have redetermined a one-time outlet benefit be assessed against the benefitted properties in the Polk County Ditch 66 drainage system in the amount of $372,000.00 as determined by the percentage increase of the entire project.

That we further report that at the completion of our examination, as aforesaid, we did sum up the total benefits and damages for the Redetermination of Benefits of said drainage system, and did find, and hereby report, that the total benefits are $3,946,514.34.

We have prepared a Benefit and Damages Statement which describes how the benefits and damages were determined which is attached and included in this report.

We did cause to be kept an accurate account of all our services and time engaged in making said view sand examination; the nature and kind of work done by us; the days each one of us was engaged in said works; the amount charged per day by each of us; every item of expense incurred by us in said work; which we have filed with the Red Lake Watershed District Board of Managers.

That we further report that the damages to be paid are shown in Exhibit 1 determined at a rate of $7,500.00/acre for permanent ditch right of way and grass strips; $400.00/acre for use as temporary construction easement utilized during the construction of the Improvement of Polk County Ditch 39 - Red Lake Watershed District (RLWD) Ditch 17 - Project 179 The damages total 76.55 acres for permanent easement and grass strip right of way and 107.84 acres of temporary construction easement, and hereby report, that the total damages are $617,261.00.

That we further report that we have considered the relative utility and benefits derived by the Improvement of Polk County Ditch 39 - Red Lake Watershed District (RLWD) Ditch 17 - Project 179 and hereby report that we have identified benefits to reflect reasonable and present-day values.

It is recommended that the Red Lake Watershed District Board of Managers hold a final hearing on the report and confirm the benefits and damages and benefited and damaged areas to be used for the future repair and maintenance of the Improvement of Polk County Ditch 39 - Red Lake Watershed District (RLWD) Ditch 17 - Project 179 and all subsequent proceedings related to the drainage system.

Dated this 20 day of April 2026

Respectfully Submitted,

Rob Wagner

Roger Beiswenger

Mike Baumgartner

EXHIBIT L - Cost Estimate with Polk Co. Ditch No. 66 Overflow Capacity

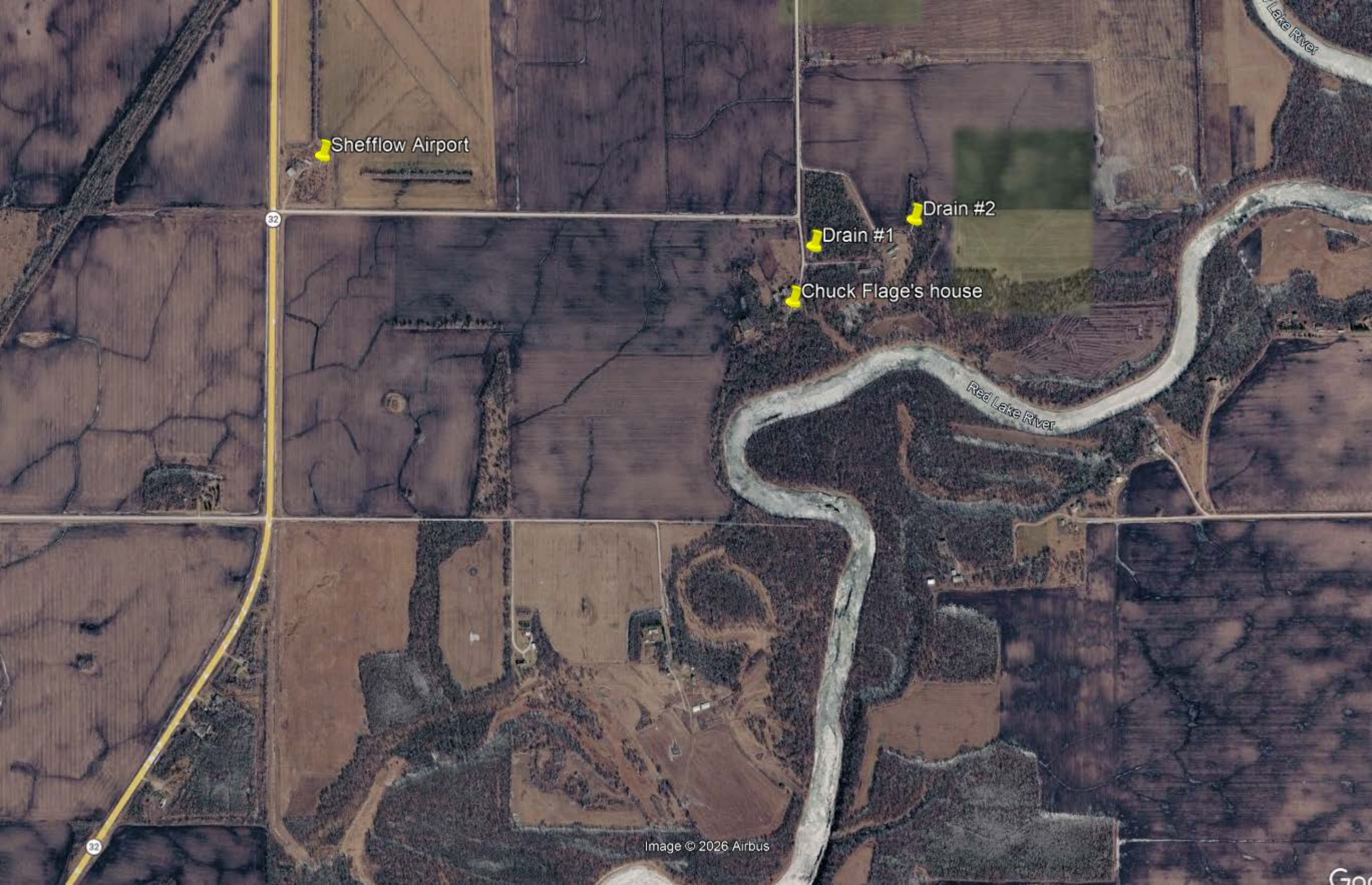
3/24/2026

RED LAKE WATERSHED DRAIN NO. 17

(GRAND MARAIS TO 330TH AVENUE SW - WITH CD 66 WATER CAPACITY)

PRELIMINARY OPINION OF PROBABLE COST

				2019 ENGINEER'S OPC			2026 ENGINEER'S OPC	
Item No.	**Item**	**Unit**	**Bid Quantity**	**Unit Price ($)**	**Amount**		**Unit Price ($)**	**Amount**
1	Traffic Control	Lump Sum	1	$ 5,200.00	$ 5,200.00		$ 10,000.00	$ 10,000.00
2	Anchored Silt Fence	Lineal Feet	1,000	$ 4.00	$ 4,000.00		$ 6.00	$ 6,000.00
3	Type 3 - Anchored 12" Bio-Roll Ditch Block (65@15')	Lineal Feet	1,040	$ 6.00	$ 6,240.00		$ 10.00	$ 10,400.00
4	Grass Seed Mixture	Pounds	11,850	$ 3.00	$ 35,550.00		$ 6.00	$ 71,100.00
5	Grass Seeding	Acres	119	$ 120.00	$ 14,220.00		$ 100.00	$ 11,850.00
6	Anchored Straw Mulch	Tons	237	$ 100.00	$ 23,700.00		$ 160.00	$ 37,920.00
7	Rip-Rap w/Geotextile Fabric	Cubic Yards	600	$ 60.00	$ 36,000.00		$ 125.00	$ 75,000.00
8	Excavation (Includes Topsoil Conservation, SWPPP Preparation and Erosion Control are all incidental to this Bid Item)	Cubic Yards	301,800	$ 2.00	$ 603,600.00		$ 4.00	$ 1,207,200.00
9	Roadway Surface Aggregate (MnDOT Class 5)	Ton	500	$ 18.00	$ 9,000.00		$ 30.00	$ 15,000.00
10	18" CSP (16 Gauge)	Lineal Feet	4,800	$ 30.00	$ 144,000.00		$ 48.00	$ 230,400.00
11	24" CSP (16 Gauge)	Lineal Feet	2,800	$ 35.00	$ 98,000.00		$ 60.00	$ 168,000.00
12	53" X 41" CSAP (12 Guage) w/3:1 STEP ENDS	Lineal Feet	400	$ 85.00	$ 34,000.00		$ 145.00	$ 58,000.00
13	60" X 46" CSAP (12 Guage) w/3:1 STEP ENDS	Lineal Feet	240	$ 105.00	$ 25,200.00		$ 180.00	$ 43,200.00
14	81" X 59" CSAP (10 Guage) w/3:1 STEP ENDS	Lineal Feet	640	$ 165.00	$ 105,600.00		$ 285.00	$ 182,400.00
15	Salvage and Reinstall Existing 73" X 55" CSAP	Lineal Feet	320	$ 80.00	$ 25,600.00		$ 160.00	$ 51,200.00
16	Cut CSP Culvert - 2:1 Step End	Each	46	$ 320.00	$ 14,720.00		$ 500.00	$ 23,000.00
17	18" CSP Standard Flared End Section	Each	90	$ 150.00	$ 13,500.00		$ 275.00	$ 24,750.00
18	24" CSP Standard Flared End Section	Each	36	$ 200.00	$ 7,200.00		$ 375.00	$ 13,500.00
19	18" Exterior Flap Gate	Each	90	$ 500.00	$ 45,000.00		$ 900.00	$ 81,000.00
20	24" Exterior Flap Gate	Each	36	$ 700.00	$ 25,200.00		$ 1,050.00	$ 37,800.00
21	80' - 18" sch 20 Steel Pipe - Directional Bore / Open Cut	Each	1	$ 20,000.00	$ 20,000.00		$ 20,000.00	$ 20,000.00
			Total Estimated Contractor Cost/Bid		**$ 1,295,530.00**			**$ 2,377,720.00**
	Engineering - Plans / Staking / Construction Observation (15%)				$ 194,000.00			$ 356,000.00
	Contringency (10%)				$ 130,000.00			$ 238,000.00
	Legal / Bonding (5%)				$ 65,000.00			$ 119,000.00
	PKM Electric				$ 34,000.00			$ 85,000.00
	Marshll Polk Rural Water System				$ 10,000.00			$ 15,000.00
	Wikstrom Communications				$ 45,000.00			$ 45,000.00
Permanent Right-of-Way		Acre	77.78	$ 4,000.00	$ 311,120.00		$ 8,000.00	$ 622,240.00
Temporary Right-of-Way (2 Crop Seasons)		Acre	109.64	$ 300.00	$ 32,892.00		$ 500.00	$ 54,820.00
	TOTAL PROBABLE PROJECT COST				**$ 2,117,542.00**			**$ 3,912,780.00**


Shefflow Airport
Drain #2
Drain #1
Chuck Flage's house
Red Lake River
Red Lake River
32
32
Image © 2026 Airbus

Drain #1

Drain #1

Drain #2

Drain #2

DEPARTMENT OF AGRICULTURE

April 6, 2026

Peter Nelson
District Manager
Pennington SWCD
Peter.Nelson@Pennington.mnswcd.org

Re: Comments on the Red Lake River Comprehensive Watershed Management Plan

Dear Red Lake River Planning Group,

Thank you for the work that went into developing this updated watershed plan. It's clear that a lot of thought and collaboration went into identifying priorities and practical solutions. We appreciate the plan's emphasis on voluntary conservation and its recognition of agriculture as an important part of the watershed's economy and landscape.

We're especially glad to see mention of the **Minnesota Agricultural Water Quality Certification Program** and the **AgBMP Loan Program**. These programs are key tools for helping producers implement practices that protect water quality while keeping farms productive. We also appreciate the plan's strong focus on **soil health**, with ambitious goals for implementing practices that improve soil function, reduce erosion, and enhance water storage. Highlighting these priorities reinforces the value of partnerships between local, state, and federal efforts.

MDA also conducts groundwater and surface water monitoring in this watershed, and more details are available in our annual monitoring report. The MDA sampled four wells in 2024, and aminopyralid, clothianidin, clopyralid, and metolachlor ESA were each detected in only one well, and all detections were <0.1% of the human health drinking water reference value. The MDA also samples the Red Lake River at Fischer from May through August each year. Forty-four pesticide compounds were detected in 2024, and two pesticides, clothianidin and imidacloprid, were detected above an aquatic life reference value in one and three samples, respectively.

Thank you again for developing a plan that reflects both resource protection and support for agriculture. We appreciate the opportunity to review and provide input.

Sincerely,
Reid Christianson

Reid Christianson, PhD
Supervisor, Clean Water Technical Unit | Pesticide and Fertilizer Management Division
Minnesota Department of Agriculture
625 Robert Street North
Saint Paul, MN 55155-2538
O: 651-201-6026
www.mda.state.mn.us

DEPARTMENT OF NATURAL RESOURCES
Northwest Regional Operations
2115 Birchmont Beach Road NE
Bemidji, MN 56601

June 11, 2024

Red Lake River Planning Group
c/o Peter Nelson
Pennington County SWCD
201 Sherwood St.
Thief River Falls, MN 56701

RE: Review of Red Lake River Comprehensive Watershed Management Plan, 5-year amendment update

Dear Red Lake River Planning Group,

Thank you for the opportunity to contribute to the amendment of the Red Lake River Comprehensive Watershed Management Plan (CWMP), a crucial document that plays a significant role in protecting and improving the health of the Red Lake River and the citizens of Minnesota. This letter serves to inform you of new information, concerns, and potential projects that we believe should be incorporated into the amended plan.

In the past 5 years, the Red Lake River CWMP planning group has made significant strides in creating healthy watersheds that protect and improve the health of the Red Lake River and the citizens of Minnesota. The priorities established in the first planning effort (i.e., water quality, habitat, reduced flood damages) have all been instrumental. They should continue to be a priority in the updated plan. The DNR is committed to providing the necessary information to protect and improve resource conditions and opportunities within the Red Lake River Watershed alongside the Red Lake River planning group, and we will continue to assist in implementing this updated plan.

As you know, this plan was part of a pilot project, and there were minimal guidelines on how the plan should look. However, the Red Lake River Planning Group has done an admirable job in navigating these challenges. With the more recent plans, there is a well-laid-out guideline that helps streamline the process and the plan writing; I would recommend that the Red Lake River plan follow the guidelines set by BWSR and streamline the plan to be more consistent with recent CWMP plans. This will remove a lot of redundancy from the older plan.

Another item would be to scale down the project list to projects that can be done in the 5-to-10-year timeline of the plan. There are a lot of numbers associated with Best Management Practices (BMPs) for the three planning regions, but it's difficult to determine if the numbers are truly meaningful. It would be nice to quantify the acre accomplishments to show what was accomplished (i.e., there are x acres and will be benefitting y% of those acres).

Is there a way to quantify all land management practices that lead to resource concerns (agriculture, mining, urban development) and identify which BMPs would provide the "best bank for the buck" on water quality and protection? If agriculture is the dominant land use type and is also where we can make the most positive gain for water quality, then there is a need to identify and quantify what practices are most beneficial (i.e., cover crops, WASCOBs, side water inlets).

DEPARTMENT OF HEALTH

Protecting, Maintaining and Improving the Health of All Minnesotans

April 14, 2026

Peter Nelson, Manager
Pennington Soil and Water Conservation District
201 Sherwood Avenue S
Thief River Falls, MN 56701
Sent to peter.nelson@pennington.mnswcd.org

Matt Fischer, Board Conservationist
Board of Water and Soil Resources
403 4th St NW, Room 200
Bemidji, MN 56601
Sent to matt.fischer@state.mn.us

Subject: Minnesota Department of Health Comments for the Red Lake River Comprehensive Watershed Management Plan (RLRCWMP)(1W1P) 60-Day Review

The Minnesota Department of Health (MDH) Source Water Protection Unit appreciates the opportunity to review the draft Red Lake River Comprehensive Watershed Management Plan. MDH commends the plan partners for including drinking water as a priority concern. Thank you for the opportunity to participate in the plan's Advisory Committee and for including our considerations.

MDH comments on the draft plan include an assessment of priority concerns addressed from our initial comment letter dated May 31, 2024.

1. Prioritize drinking water protection: Consider groundwater Drinking Water Supply Management Areas (DWSMAs) delineated for Crookston, Red Lake Falls, Saint Hilaire, Country Estates Mobile Home Park, Aeseby Court, and Basswood Court as priority areas for protection activities. The vulnerability of DWSMAs determines the level of risk posed by various land uses and potential sources of contamination.

   This priority concern was addressed in the following ways:

   a. Identifying DWSMAs in the planning area as targeted protection areas in the Relevant Socio-Economic Information Section of the Land and Water Resources Narrative (page 24).
   b. Including vulnerable groundwater quality as an issue in the Issues section (page 31).
   c. Specifying that DWSMAs are focus areas for the partnership to prioritize protection activities in Measurable Goals (page 47).
   d. Providing a figure of DWSMAs in the planning area to assist partners with targeting activities in Measurable Goals (page 48).
   e. Including DWSMA delineations as information for the partnership to use in the prioritization of activities in Targeted Implementation Schedule (page 72).
   f. Assigning Source Water Protection planning and implementation as a watershed-wide action for the partnership to measure progress in the Targeted Implementation Schedule (page 79).
   g. Providing DWSMA protection as an example of partnership collaboration in Plan Administration and Coordination (page 106).

a. Assigning surface water intakes in Thief River Falls and East Grand Forks as targeted protection areas in the Relevant Socio-Economic Information Section of the Land and Water Resources Narrative (page 24).
b. Identifying Thief River Falls and East Grand Forks surface water intakes as vulnerable and prioritized for protection in the Issues Section (page 31).
c. Including the benefit to Thief River Falls and East Grand Forks in their drinking water protection efforts through the reduction of sediment loading in Measurable Goals (page 37).
d. Assigning Source Water Protection planning and implementation as a watershed-wide action for the partnership to measure progress in the Targeted Implementation Schedule (page 79).

6. Prioritize and promote groundwater conservation and recharge: **The watershed has limited aquifer availability and western portions of the planning area have conditions prone to groundwater loss through flowing wells. Conservation practices that improve groundwater recharge and manage discharge are considerations for planning and projects in the watershed.**

   This priority concern was addressed in the following ways:

   a. Identifying the loss of recharge as an issue for groundwater supplies to be addressed in the plan in the Issues Section (page 31).
   b. Assigning improved groundwater recharge as a 10-year goal in Measurable Goals (pages 35 and 43).
   c. Including the protection of groundwater recharge areas as an example of stacked benefits in Measurable Goals (page 47).

MDH priority concerns have been adequately addressed in the drafted plan. We look forward to providing continued support and technical assistance with plan implementation. If you have any questions, please contact me at (218) 332-5195 or via email at dan.disrud@state.mn.us.

Sincerely,

Daniel L. Disrud, REHS, NW District Principal Planner
Source Water Protection Unit
Drinking Water Protection Section
Environmental Health Division
Health Protection Bureau
2312 College Way
Fergus Falls, MN 56537

ec: Carrie Raber, MDH GRAPS Coordinator
Trent Farnum, MDH Source Water Protection Research Scientist
Luke Pickman, MDH Source Water Protection Hydrologist
Jenilynn Marchand, MDH Source Water Protection Planner Supervisor
Steve Robertson, MDH Drinking Water Protection Section Assistant Manager
Henry Van Offelen, BWSR Clean Water Specialist
Ryan Hughes, BWSR Northern Region Manager
Julie Westerlund, BWSR 1W1P Coordinator
Stephanie Klamm, DNR Area Hydrologist
Nathan Kestner, DNR Program Manager
Barbara Weisman, DNR Clean Water Operations Consultant
Molly Costin, MPCA Watershed Unit Supervisor
Melinda Neville, MPCA Watershed Grants and Contract Specialist
Reid Christianson, MDA Clean Water Technical Assistance Unit Supervisor
Catherine Neuschler, Minnesota Environmental Quality Board

MINNESOTA POLLUTION CONTROL AGENCY

Detroit Lakes Office | 714 Lake Avenue | Suite 220 | Detroit Lakes, MN 56501 | 218-847-1519

800-657-3864 | Use your preferred relay service | info.pca@state.mn.us | Equal Opportunity Employer

April 6, 2026

Peter Nelson, District Manager
Pennington SWCD
201 Sherwood Ave S
Thief River Falls, MN 56701

RE: Notification of formal 60-day comment period for draft Red Lake River Comprehensive Watershed Plan

Dear Peter Nelson:

Thank you for the opportunity to provide comments regarding the draft Red Lake River Comprehensive Watershed Plan (Plan). The Minnesota Pollution Control Agency (MPCA) appreciates the opportunity to work with local partners and other state agencies to protect and improve water resources. The MPCA has the following comments:

1. There are numerous references to an undefined acronym "RLRW".

2. There are a couple of in-text citations that are missing the correct reference in Appendix I, specifically:
    a. Page 33 has (MPCA, 2021), as a reference for contaminants of emerging concern regarding antibiotics, disinfectants, antidepressants, DEET, and BPA. However, the source in Appendix I is: "Minnesota Pollution Control Agency (MPCA). (2021). Summary of the Statewide Chloride Management Plan. Retrieved from https://www.pca.state.mn.us/sites/default/files/wq-s1-94a.pdf"

    b. Page 40 has a reference to the Grand Marais Creek Watershed Restoration and Protection Strategy (WRAPS) Report, and I believe the intent is to reference both the Grand Marais Creek WRAPS Report as well as the Red Lake River WRAPS Report.

3. The Upland Erosion & Nutrient long-term goal is "all waters support aquatic life and recreation thresholds for sediment levels. TSS – 24,378 tons/year". However, according to the total suspended solids (TSS) Total Maximum Daily Load (TMDL) Report for the Grand Marias Creek and Red Lake River watersheds, the long-term goal as stated would not achieve the required load reductions. Frame TSS long-term goals and implementation actions with the loading capacities and allocations from each TMDL. The load reductions can be found in Tables 4-1, 4-2, and 4-3 in the Grand Marais Creek Watershed TMDL and Tables 5-5, 5-7, 5-9, 5-12, 5-14, 5-16, 5-18, 5-20, 5-23, and 5-25 in the Red Lake River Watershed TMDL.

4. Page 69 mentions that the most recent MPCA water quality assessment was completed in 2014. The MPCA completed the most recent Intensive Watershed Monitoring in 2025 for Grand Marais Creek and Red Lake River Watersheds. The following updates will be available prior to the mid-point update: watershed assessment report, the Red Lake River and Grand Marais Creek WRAPS Report, and TMDLs (as applicable).

Section	Page	Comment
Water Resources	19	Phosphorus is not listed as a primary pollutant of concern even though it is listed as a high priority issue later in the plan (p29)
Land Use, Land Protection and habitat	23	Little discussion on the fisheries resources in the watershed. Lake Sturgeon is a focal species in the lower watershed up to the TRF dam. The Red Lake River provides high quality habitat for Lake Sturgeon and a number of other lotic fish species such as Channel Catfish, Non-game species such as Fresh Water Drum, Etc. Beach ridge areas provide high quality spawning habitat for lithophilic spawners such as Walleye and Lake Sturgeon. Flood plain (oxbow) habitat is important spawning and nursery habitat for a number of species
Issue Statements	30	Altered hydrology statement does not directly address ditching and tiling effects
Issue Statements	30	There is not an aquatic habitat issue. Loss of longitudinal (briefly discussed in land and water narrative pgs. 16 & 21)/lateral connectivity and degraded aquatic habitat such as siltation in Red Lake River Reservoir, altered channel morphology. I think that the nutrient loading and sediment input issues are covered sufficiently in other issue statements.
Red Lake Rive Short Term Measurable Goals	36	Altered hydrology is not improved by improving/repairing drainage capacity and outlets. Ditching and tiling are the root causes of the altered hydrology. Activities such as natural channel design of streams and wetland restorations would be more applicable for addressing altered hydrology
Flooding	43-44	How is this 4000 acre feet of storage going to be added? Can examples beyond "agricultural and storage conservation practices" be provided? Ungated storage such as wetland restoration or other land conservation practices that retain water on the landscape longer (in good areas to do so), especially in the middle and upper watershed, would help restore altered hydrology. Adding impoundments may further alter hydrology rather than return to a "more natural flow regime" depending on the operational details. Correctly operated impoundments can help to restore altered hydrology. Additionally, although improved conveyance in the lower part of the watershed does help to address flooding issues, it does nothing to address the altered hydrology issue. Ideal

BOARD OF WATER AND SOIL RESOURCES

April 14, 2026

Peter Nelson
District Manager, Pennington SWCD
201 Sherwood Ave S.
Thief River Falls, MN 56701

RE: Response to submittal of draft Red Lake River Comprehensive Watershed Management Plan Amendment 60-day review

Dear Red Lake River Planning Group,

Thank you for the opportunity to provide comments regarding the draft Red Lake River Comprehensive Watershed Management Plan Amendment developed under the Board of Water and Soil Resources (BWSR) One Watershed One Plan (1W1P) program as prescribed under Minnesota Statutes Section 103B.101, Subdivision 14. We appreciate the partners' continued willingness to participate in the development and implementation of a multi-jurisdictional, watershed-based plan.

As a comprehensive watershed management plan, this is an all-inclusive plan to address surface and groundwater, water quality and quantity, habitat, and land use per the 1W1P Plan Content Requirements adopted by the BWSR on August 24, 2023. Implementation actions in the plan consider a broad range of tools and programs necessary to achieve the goals of the plan. BWSR has the following comments on the plan:

Assessment of the inclusion of BWSR's initial priority issues submitted May 31, 2024:

- BWSR submitted initial comments for priority issues to include in the plan amendment. After review of the draft plan, we commend the group for discussing all the submitted priorities during the amendment process and incorporating them into the plan.

Items for consideration that may provide additional benefit:

- Consider taking the time before final plan submittal to make the document compliant with federal requirements for accessibility of web content. From my understanding, these requirements go into effect for local governments on April 26, 2027. Making the plan compliant now will prevent the need for changes in the near future.
- The "Success Since Previous Plan" and "Planning Regions" sections at the beginning of Section 3 seem out of place in the Priority Issues section. We suggest moving them to the end of Section 2 and leaving the issues section (Section 3) all about issues.
- Unstable River and Stream Channels is listed as a priority issue addressed by the Upland Erosion & Nutrients goal. This goal relates to upland erosion as estimated with the PTMApp and there is a separate

Red Lake River Watershed Hydrology & Stream Stability

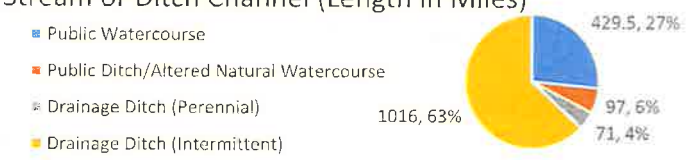
Staff Contact: Stephanie Klamm (Area Hydrologist)
651-587-5448, stephanie.klamm@state.mn.us
This poster is part of a series summarizing watershed conditions and providing protection and restoration options for local efforts.

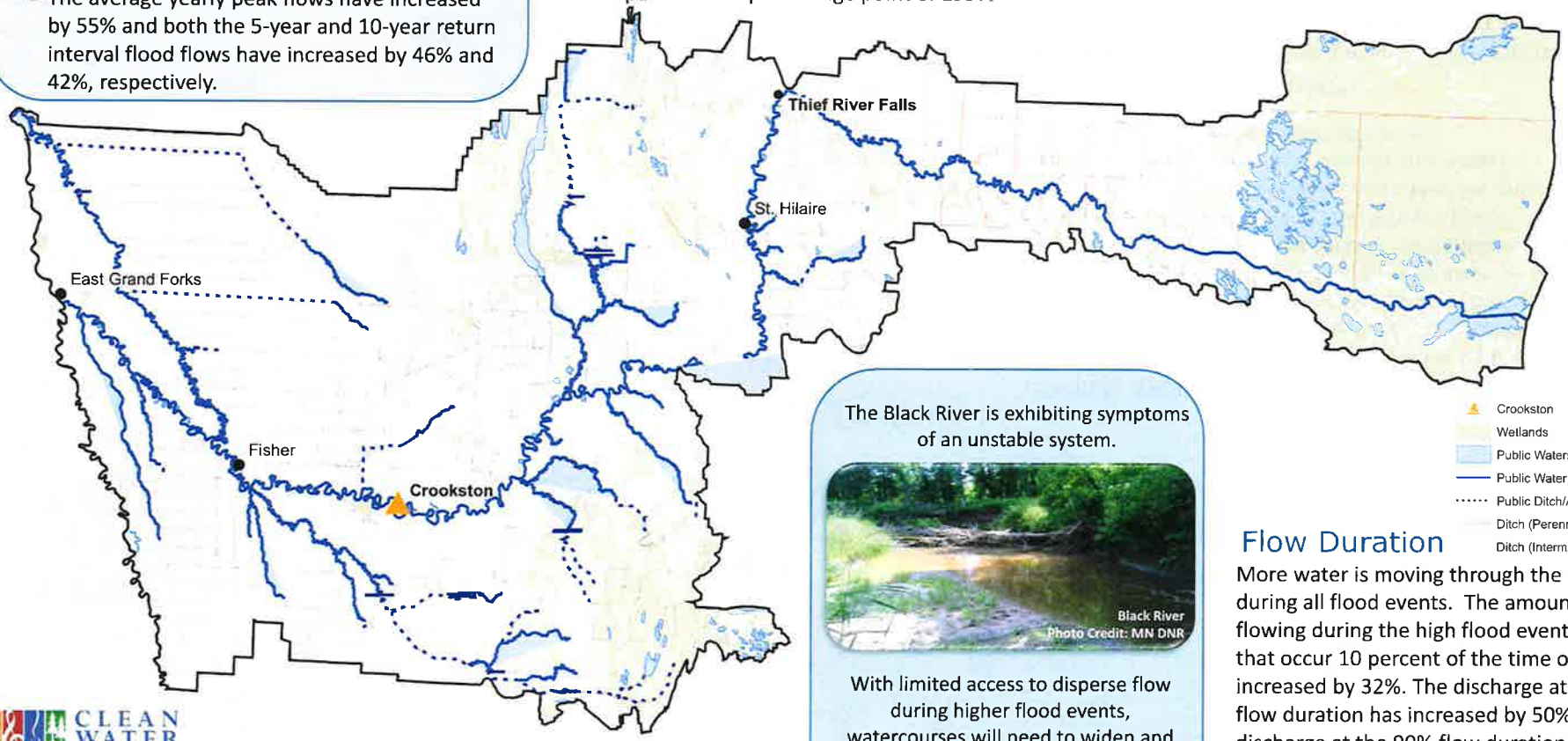
- The Red Lake River has one long-term stream gage site located at Crookston with a period of record from 1902 to present.
- A hydrologic change point identified in 1997 showed precipitation and runoff increased throughout the year compared to per-1997.
- Precipitation has increased by 2.6 inches since the hydrologic change point in 1997.
- The average yearly peak flows have increased by 55% and both the 5-year and 10-year return interval flood flows have increased by 46% and 42%, respectively.

In-channel Erosion

Higher flows are occurring more often in the watershed, potentially increasing in-channel erosion and reshaping stream channels. In the Red Lake River, the volume of water moving through the channel at bankfull flows (1.5-year return interval) has increased by 71% compared to the pre-change point of 1997.

Stream or Ditch Channel (Length in Miles)





The Black River is exhibiting symptoms of an unstable system.

With limited access to disperse flow during higher flood events, watercourses will need to widen and possibly deepen more. This will result in channel erosion.

Flow Duration

More water is moving through the channel during all flood events. The amount of water flowing during the high flood events, those that occur 10 percent of the time or less, has increased by 32%. The discharge at the 50% flow duration has increased by 50% and the discharge at the 90% flow duration has increased by 84%.

CLEAN WATER LAND & LEGACY AMENDMENT
DEPARTMENT OF NATURAL RESOURCES

Date: April 8, 2026

To: Thief River Watershed Plan Review Authorities

From: Thief River Planning Group

Re: Thief River Comprehensive Watershed Management Plan Amendment submittal of Draft Plan for 30-day comment period

The Thief River Planning Group, on behalf of the members, is pleased to submit the Draft Thief River Comprehensive Watershed Management Plan Amendment for a 30-day comment period according to the Board of Water and Soil Resources minor amendment procedure. A copy of the proposed Amended Plan can be found at https://www.redlakewatershed.org/thief-river-one-watershed-one-plan-1w1p

The Thief River Planning Group invites all recipients of this notice to submit comments on the Draft Plan by May 15, 2026.

Please submit written comments to both (comments may be submitted electronically):

Darren Carlson
Marshall SWCD
District Manager
105 South Division St.
Warren, MN 56762
218-745-5010
darren.carlson@mn.nacdnet.net

Matt Fischer
BWSR Board Conservationist
2532 Hannah Avenue NW
Bemidji, MN 56601
218-766-6496
matt.fischer@state.mn.us

After completion of this comment period, a summary of comments received will be provided to all who commented. A public hearing is scheduled for June 8, 2026, at 9 a.m. at the Red Lake Watershed District in Thief River Falls, MN.

Thank you on behalf of the members of the Thief River Planning Group:

Marshall County
Marshall Soil & Water Conservation District
Beltrami County
Beltrami County Soil & Water Conservation District
Pennington County
Pennington Soil & Water Conservation District
Red Lake Watershed District

Red Lake Watershed District

Permit # 26-017

Status Report: Received

Expiration:

Applicant Information

Name	Organization	Address	Email	Phone Number(s)
Gregory Sparby		34313 380th Ave Ne Grygla,MN 56727	Greg.sparby@gmail.com	tel: 218-686-7302

General Information

(1) The proposed project is a: **Channel Stabilization or Restoration\, Erosion Control\, and Other Water Related Facilities,**

(2) Legal Description

(3) County: **Beltrami** Township: **Spruce Grove** Range: **37** Section: **35**

(4) Describe in detail the work to be performed: Check Ditch grade, cleaning

(5) Why is this work necessary? Explain water related issue/problem being solved. **Water not draining**

Status

Status	Notes	Date
Received		04/16/2026

Conditions

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.

- Work in road right-of-way is subject to approval of road authority (Township, County, or State).
- For work within Legal drainage system right-of-way or RLWD Project Easement Areas, applicant agrees to move their utilities at their own expense if it is determined that the utility needs to be moved in the future by the RLWD.
- Unless otherwise noted, all approved permit applications expire one year from the date of board approval. A permit renewal can be applied for prior to the expiration date by contacting the district office.
- This Permit does not relieve you of any requirements for other permits, which may be necessary from Township, County, State, or Federal Government Agencies.
- Please be aware of the requirements of the Rules of the District, found on our web-site at http://www.redlakewatershed.org/PDF_Files/RED%20LAKE%20WATERSHED%20DISTRICT%20RULES_Adopted%208-27-15.pdf

Beaver Activity
Beaver Activity
Beaver Activity
Beaver Activity
Beaver Activity
Malcolm
Beaver Dam
Carmel
Four Town
Red Lake State Wildlife Management Area
Jelle
Thorhult
Image © 2026 Airbus
Google Earth
Imagery Date: 5/2/2025 48°18'04.15" N 95°22'07.36" W elev 1229 ft eye alt 18.50 mi

Beaver Activity

Malcolm

Beaver Dam

Carmel

89

89

Four Town

Holthusen Construction Inc

Steenerson

Our Savior's Alcw

Image © 2026 Airbus

Google Earth

1985

Imagery Date: 5/2/2025 48°17'13.25" N 95°26'54.58" W elev 1210 ft eye alt 43373 ft

Moosehorn Road

R37W

T158N

R38W

Moose River Road

Moose River

T157N

R38W

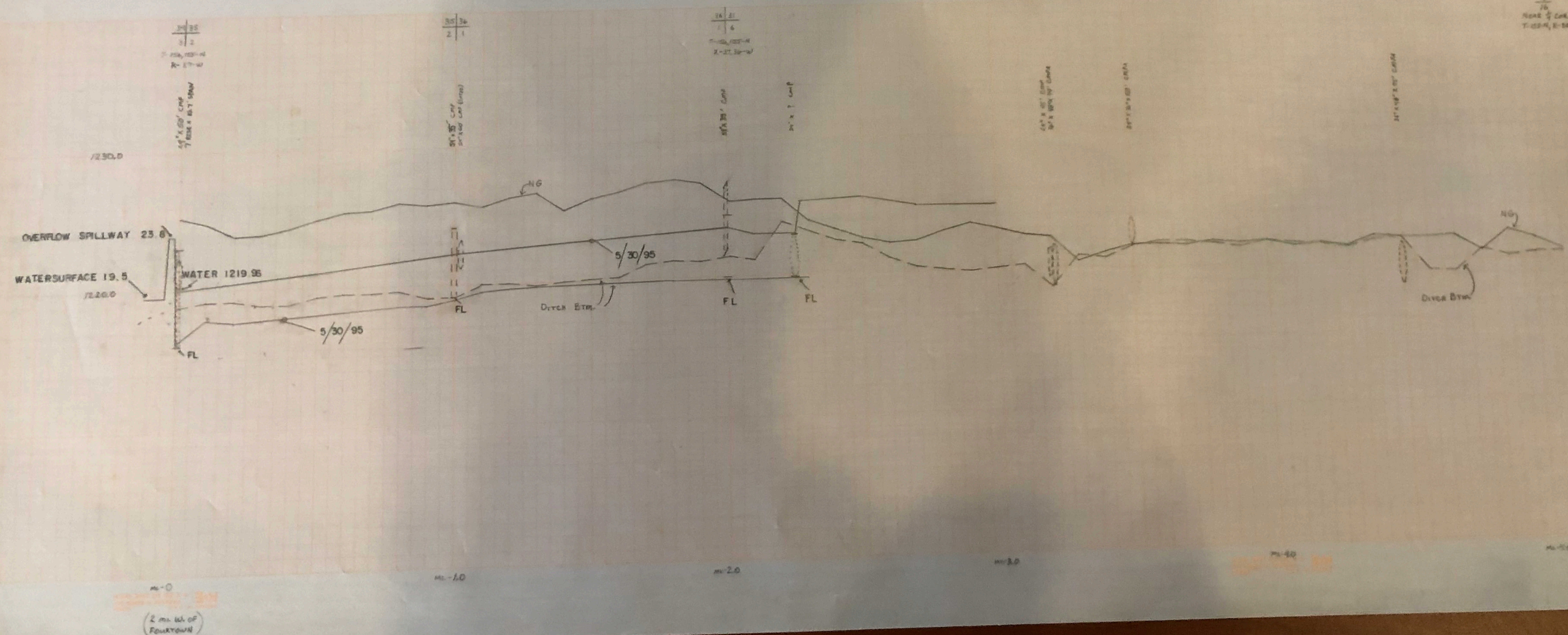
T156N

Red River Diversion Outlet

Hwy 89

R37W

N

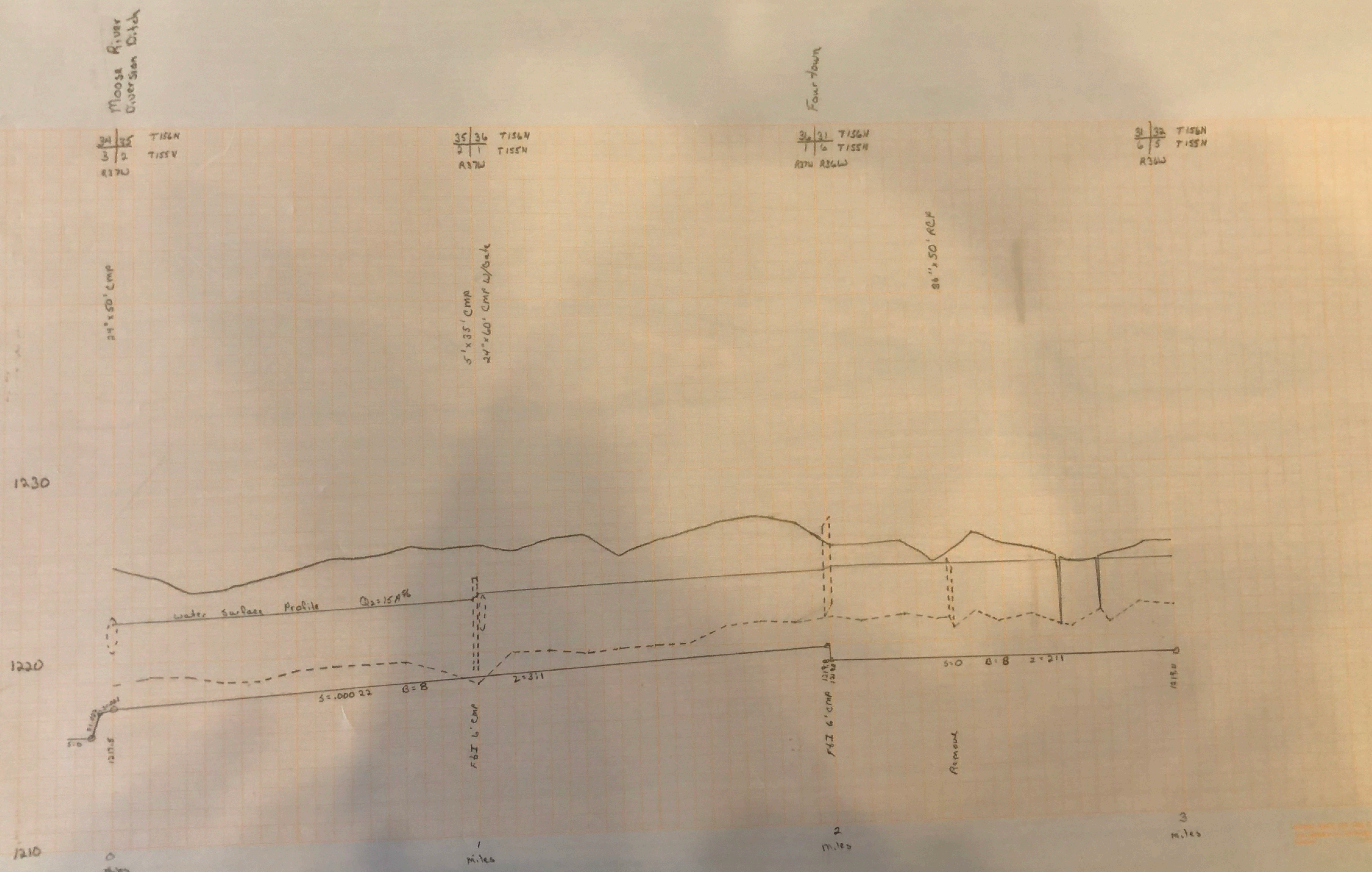


Ditch Profile - along Hwy 89 from
Cor. Sec. 35|36 / 3|2 T-155,156-N, R-37-W, to
the S. Sec. Line - Sec. 9, T-155-N, R-36-W

2-28-85

Revised 7-6-87
Revised 6-1-95

Pg. 1 of 3



Moose River
Diversion Ditch
Fourtown
34 | 35 T156N
3 | 2 T155N
R37W
35 | 36 T156N
2 | 1 T155N
R37W
36 | 31 T156N
1 | 6 T155N
R37W R36W
31 | 32 T156N
6 | 5 T155N
R36W
24"x50' CMP
5'x35' CMP
24"x60' CMP W/Gate
36"x50' RCP
1230
1220
1210
water Surface Profile
Q2=15 AR
S=.00022
B=8
Z=3:1
S=0
B=8
Z=3:1
F&I 6' CMP
F&I 6' CMP
Remove
1217.5
1219.0
0
Miles
1
Miles
2
Miles
3
Miles

From: Kaylie Carver <Kaylie.Carver@co.beltrami.mn.us>
Sent: Tuesday, April 14, 2026 8:22 AM
To: Tammy Audette <tammy.audette@redlakewatershed.org>; Corey Hanson <Corey.Hanson@redlakewatershed.org>
Subject: RE: Beltrami County Culvert Inventory

Hi Tammy,

We are still working out the logistics of all characteristics we'd like to collect and are open to suggestions! Currently, we are looking at location, elevation (if possible), type, opening type, shape, material, condition, and photographs. I've been speaking with a DNR employee and we will be basing out survey tool off of his, I've attached a PDF of a paper version of his tool. We will be having our GIS department make an application that will allow for data to be added by county highway department members after the inventory is completed – making it a living database of culvert status eventually.

I haven't seen Pennington's, but I've seen the DNR set up and MHW set up for their inventories. Where would one find the Pennington info?

You would have access to the inventory data, and until we have the collection tool set up I'm not certain how we would get it to you. Do you have a preferred format?

Sincerely,

Kaylie

From: Tammy Audette <tammy.audette@redlakewatershed.org>
Sent: Tuesday, April 7, 2026 3:01 PM
To: Kaylie Carver <Kaylie.Carver@co.beltrami.mn.us>; Corey Hanson <Corey.Hanson@redlakewatershed.org>
Subject: Re: Beltrami County Culvert Inventory

[EXTERNAL]

Hey Kaylie,

Sorry for my delayed response. Had some time off last week and I'm trying to catch up on emails. Couple questions about the culvert inventory:

1. Would the RLWD have access to information obtained and if so in what format?
2. What kind of details would you obtain on each culvert: size, invert, shape, type, flap gate, photo etc.?

I wish we had culvert inventory in our entire watershed. It's a great tool to have. Have you seen how Pennington County has set theirs up???

Tammy

Tammy Audette
Administrator
Tammy.Audette@redlakewatershed.org
Red Lake Watershed District
1000 Pennington Avenue South
Thief River Falls, MN 56701
218.681.5800

From: Kaylie Carver <Kaylie.Carver@co.beltrami.mn.us>
Sent: Friday, April 3, 2026 2:21 PM
To: Tammy Audette <tammy.audette@redlakewatershed.org>; Corey Hanson <Corey.Hanson@redlakewatershed.org>
Subject: Beltrami County Culvert Inventory

Hi Tammy and Corey,

In yesterday's ULRL steering team meeting, we discussed the upcoming culvert inventory in Beltrami County. We did not receive the funding through our applications to the MPCA's climate resiliency grant and are looking to move forward with WBIF and other funding in the ULRL and MHW. As for the section of TRW in Beltrami, is there funding available to contribute to the inventory?

We have an estimate of $10,000 per summer staffer for the entire summer. TRW is about 12% of the county, and if we assume 2 staffers will spend 12% of their total work time in the TRW: $2,400 for the inventory in the TRW. This is assuming all other factors are equal, the actual cost will fluctuate.

I would greatly appreciate any assistance you can provide on this matter!

Sincerely,

Kaylie Carver
Clean Water Specialist
Environmental Services/Soil & Water Conservation District
701 Minnesota Ave NW Ste.113
Bemidji, MN 56601
Phone: 218-333-4157

U.S. Fish and Wildlife Service

Agassiz National Wildlife Refuge

Draft Environmental Assessment for the Mud River Enhancement Project

April 2026 Internal Review

The mission of the U.S. Fish and Wildlife Service is working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people.

The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.

Cover Photo / USFWS

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ABBREVIATIONS

cfs	cubic feet per second
CWA	Clean Water Act
DNR	Department of Natural Resources
EA	environmental assessment
FWS	United States Fish and Wildlife Service
JD	Judicial District
MBWSR	Minnesota Board of Water and Soil Resources
NWR	National Wildlife Refuge
Refuge	Agassiz National Wildlife Refuge
RLWD	Red Lake Watershed District
SD	State Ditch
Service	United States Fish and Wildlife Service
SWCD	Soil and Water Conservation Districts
USFWS	United States Fish and Wildlife Service
WMA	Wildlife Management Area

DEFINITIONS

Biodiversity	Biodiversity, or biological diversity, refers to the variety and variability of all living organisms—including plants, animals, microorganisms, and the genetic differences within them—within a particular habitat or across the entire planet. It covers the complexity of ecosystems and the interactions between different species.
Environmental Assessment	A concise public document that a federal agency prepares, under the *National Environmental Policy Act*, to provide sufficient evidence and analysis to determine whether a proposed agency action would require preparation of an environmental impact statement or a finding of no significant impact.
Dredging and Excavation	Dredging and excavation are the two most common means of removing sediment from a waterbody (such as rivers, streams, lakes) either while it is submerged (dredging) or after water has been diverted or drained (excavation). Both methods typically necessitate transporting the sediment to a location for disposal. Dredging maintains or deepens water-filled channels, while excavation creates channels or improves dried old channels that, over time, have been filled with sediment.
Flashiness	Stream flashiness refers to how quickly a stream's water levels and flow rates rise and fall in response to precipitation. A "flashy" stream is highly responsive to storms, showing a rapid, sharp increase in flow during rain events, followed by a swift decrease, rather than a slow, gradual release.
Floodplain	Floodplains are areas adjacent to rivers, ponds, and lakes that are periodically flooded at different points in time. Floodplains are hydrologically important, environmentally sensitive, and ecologically productive areas that perform many natural functions. Floodplains frequently have high soil fertility since nutrients are deposited within flood waters. This encourages plant growth and creates wildlife habitat areas.
Fluvial Geomorphic Principles / Conditions	Fluvial geomorphic principles and conditions refer to the scientific study of how flowing water (fluvial) shapes the earth's surface (geomorphology) through the processes of erosion, sediment transport, and deposition. It focuses on the interactions between water, sediment, and the physical shape of river channels and their surrounding landscapes (floodplains and valleys).
Hydrology	Hydrology is the study of the properties of the earth's water and, especially its movement in relation to land.
Monotypic	Refers to an area containing only one type of plant or animal species.
Outcompete	Outcompete means to displace another species in the competition for space, food, sunlight, or other resources, such as when a nonnative (exotic) plant species outcompetes native plants to form a monotypic plant community.
Riffle	A riffle is a shallow, fast-moving, and turbulent section of a river or stream where water flows over rocks, gravel, or cobble.
Riparian / Riparian Habitat	Riparian areas, or zones, are lands that occur along the edges of waterbodies, such as rivers, streams, and lakes. Riparian habitat includes streambanks, riverbanks, and floodplains occupied by plants and wildlife that prefer these particular areas.

Riverine / Riverine Wetland	Riverine describes areas along the banks of a river or stream. Riverine wetlands are found along the edges of rivers, streams, and creeks and include rivers, floodplains, marshes, and lakes.
Sediment	Sediment in water is a collection of suspended or dissolved solid materials—such as silt, sand, clay, and organic matter—that make water cloudy or gritty. Sediment can enter water supplies through storm runoff or natural erosion.
Sediment Flushing Events	Sediment flushing events are planned, high-flow water releases designed to scour and move accumulated sand, silt, and clay downstream. These events typically cause sudden, but temporary, intense increases in sediment concentration and altered flow conditions downstream. While this can temporarily reduce visibility for aquatic wildlife and disrupt habitats, it is often done to improve the natural flow of sediment required for ecosystem health in the long run.
Sinuosity	Sinuosity is a measure of how much a stream meanders or bends.
Turbidity	Turbidity is the measure of relative clarity or cloudiness of water, caused by suspended particles like silt, clay, organic matter, algae, and microbes.
Wetland	Wetlands are low-lying, transitional areas between land and water, defined by saturated soils, water-loving plants (hydrophytes), and high biodiversity. Wetlands are either permanent or seasonal. They play a vital role in improving water quality, controlling floods, providing habitat, and supporting the overall health and function of the ecosystem.

CHAPTER 1. PURPOSE AND NEED

AGASSIZ NATIONAL WILDLIFE REFUGE

Agassiz National Wildlife Refuge ("NWR" or "Refuge") consists of 61,500 acres of wetland and upland habitats in northwestern Minnesota. The Refuge lies in the aspen parkland transition zone between the boreal forest to the north and east and the tallgrass prairie to the south and west. The Refuge contains 26 wetland impoundments that range in size from 30 to 9,000 acres. The Refuge provides a variety of habitats and breeding grounds for nesting and migrating birds and numerous waterfowl species, and is home to 49 species of mammals, 12 species of amphibians, and 9 species of reptiles. Two natural lakes lie within 4,000 acres of black spruce-tamarack bog, which has been designated as wilderness by the National Wilderness Preservation System. The Refuge is also noted for two resident packs of gray wolves, nesting bald eagles, occasional moose, and colonial nesting birds, specifically, Franklin's gulls. Figure 1 and figure 2 show the location of the Refuge.

EARLY PROJECT PLANNING

The U.S. Fish and Wildlife Service ("Service"), Red Lake Watershed District, and Minnesota Department of Natural Resources (DNR), initiated the planning process for the proposed "Mud River Enhancement Project" in summer of 2021. The three entities defined an area and conducted a preliminary engineer's report for an enhancement project of an old channel of the Mud River, Marshall County, Minnesota. The Red Lake Watershed District identified entities and individuals to serve on the Mud River Enhancement Project Work Team ("Work Team") – see Chapter 3 for more information on Work Team members and planning efforts. The Work Team used guidance from the *Thief River Comprehensive Watershed Management Plan / One Watershed, One Plan* (TRPP 2020) to develop project objectives, goals, and alternatives.

ISSUES IDENTIFIED BY THE WORK TEAM

Agassiz Pool, in the Refuge, receives flow from the Thief River and Mud River and discharges to the Thief River. Thief River then flows to Thief River Falls. Both rivers carry and deposit sediment into the pool. The sedimentation has led to excess cattail growth and has been detrimental to waterfowl habitat. Seasonal drawdowns of the pool, in turn, send high concentrations of sediment and nutrients downstream to the drinking water source for the City of Thief River Falls. Flooding is a concern in the area, as well, especially along the State Ditch (SD) 83 portion of the Thief River (RLWD 2026).

The Work Team came to a consensus on a project that would direct water into a meandering 6-mile stretch of the old Mud River channel. The improved old channel would roughly follow the path of an ancient channel (currently buried under 5 feet of peat) that Service staff discovered using aerial photography and soil borings. The Work Team envisioned a project that would result in a meandering channel and floodplain expansion, which would improve natural processes and habitat for aquatic, waterfowl, and migratory bird species. The project would reduce the impacts of runoff events upon over-water nesting birds in Agassiz Pool by moderating inflows.

The Work Team's project design would result in a nature-based channel to convey incoming flow from the Mud River. Instead of being directly deposited in the remnants of JD (Judicial Ditch) 11 channel within Agassiz Pool (from which much sediment can be flushed downstream), sediment could potentially be deposited onto an enhanced floodplain that is currently inaccessible due to the excavation of JD 11, which occurred in the early 1900s. Currently, upstream sediment runoff, from thousands of acres of agricultural lands and ditches, is being reduced through implementation of best management practices that are being largely funded by Thief River Watershed under the Minnesota Board of Water and Soil Resources' "One Watershed, One Plan" Program (MBWSR 2018). Note that upstream management is not part of the Mud River Enhancement Project.

FIGURE 1. LOCATION OF AGASSIZ NWR

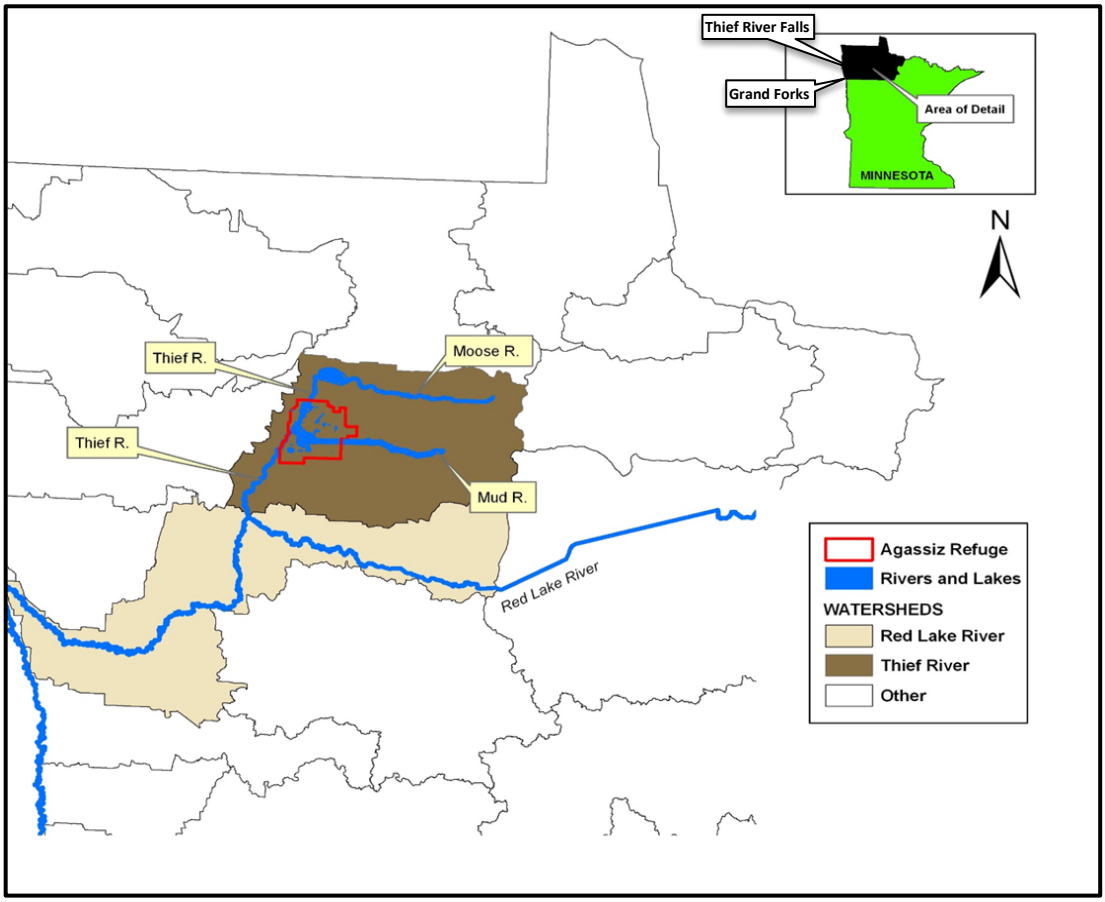
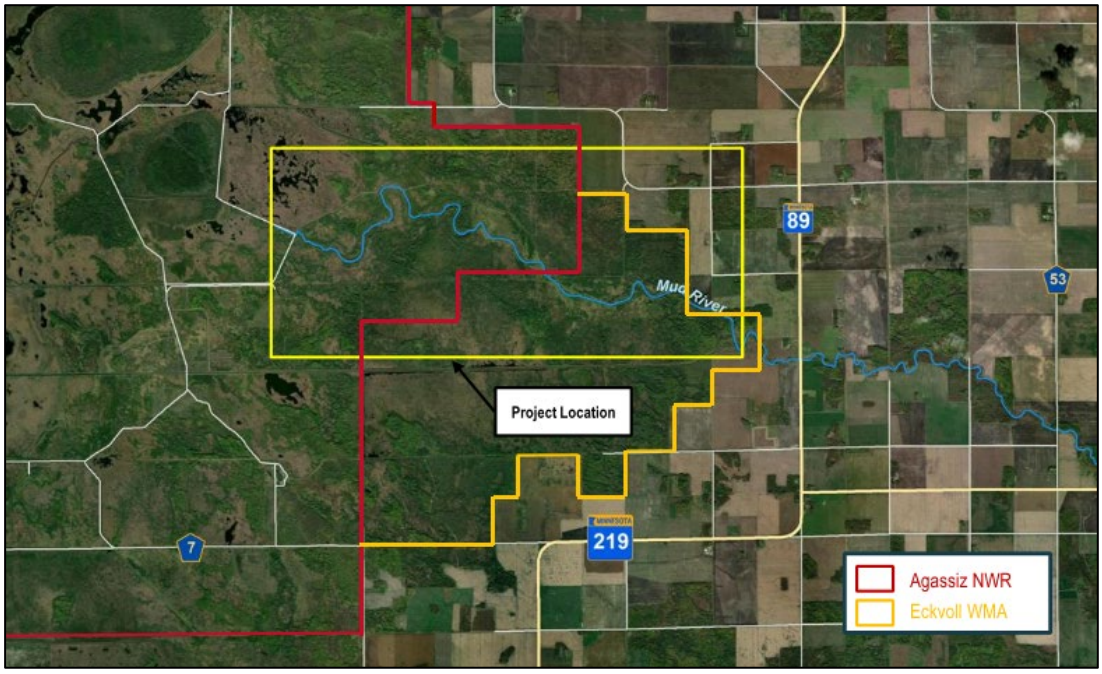


FIGURE 2. AGASSIZ NWR AND PROJECT LOCATION



PROJECT NEED BASED ON CURRENT CONDITIONS

The Mud River drains thousands of acres of agricultural lands before flowing into the Agassiz NWR just above the confluence with the Thief River. Altered hydrology, flashiness, and incoming sediment from the Mud River watershed has resulted in the following harmful effects on the Refuge:

1. Habitat quality has deteriorated as a result of sediment accumulation in wetlands.
2. The wetlands then become infested with invasive cattail.
3. There are increased flood impacts as sediment displaces storage volume within Refuge pools.
4. There are periodic spikes in turbidity levels in the Thief River when releases of water transfer sediment out of the Refuge.

The Mud River Enhancement Project was designed to reduce these harmful effects within and around the Refuge, while maintaining or improving the Mud River's outlet capacity from upstream agricultural areas through the Refuge and into the Thief River. This proposed project is not expected to substantially eliminate sediment that has been deposited in Refuge pools in prior decades, but would focus on controlling future sediment deposition.

It is important to note that the primary purpose of the Refuge is to provide sanctuary and breeding grounds for migratory birds and other wildlife. Flood storage is not a formal purpose of the federal project, so is considered "ancillary." The local and regional organizations contributing funding and expertise for this project have flood damage reduction as a primary purpose of their actions and operations.

PROJECT PURPOSE

Primary Project Purposes/Objectives

Goals set the direction, while objectives define the steps, or approaches, to reach the goals. While different, the two terms work together when planning and executing a project. Both create ways to reach desired outcomes or desired future conditions.

The primary purposes, or objectives, served as guides for developing project alternatives or actions that would need to be implemented in order for the project to be considered a success; that is, to meet future desired conditions described on the next page. The Work Team developed approaches that would

- enhance natural riverine, riparian, and floodplain functions along portions of the Mud River/JD 11 channels within the Refuge to improve migratory bird habitat and improve ecological functions that were lost due to drainage practices;
- reduce deposition of sediment from the Mud River into Refuge pools, which promotes cattail infestation and degrades the quality of habitat for migratory waterfowl;
- maintain ancillary (additional) flood storage capacity within the Refuge for downstream landowners and communities and explore associated opportunities to incrementally enhance flood storage capacity in the Mud River channel on the upstream margins of the Refuge;
- mitigate upstream influences that negatively affect Refuge wetlands;

- ensure Refuge operations are not adversely affected; and
- ensure that upstream and downstream agriculture lands are not adversely affected.

Secondary Project Purposes/Objectives

The project Work Team determined that, if primary objectives were met, secondary objectives could also be met to help achieve desired future conditions. Those secondary objectives are to

- maintain or incrementally improve the function of the Service's water management system by reducing sediment deposition in primary flow paths through Refuge pools, which would ensure continuous passage of water from upstream agricultural areas to the Thief River during high flow events;
- reduce or eliminate the need for occasional sediment flushing, which can produce temporary high levels of suspended sediment in the Thief River downstream of the Refuge; and
- use the actions associated with this project to improve riparian habitat, where feasible.

DESIRED FUTURE CONDITIONS

Desired future conditions, or project goals, are specific descriptions of what the Project Area looks like or how it is functioning after actions have been taken. In general, the timeline for achieving desired future conditions varies by project.

The desired future conditions in the proposed Project Area can be described as an improvement over current conditions or a reduction or elimination of current issues and problems. The effects analysis in Chapter 2 states whether the following desired future conditions would be achieved under each alternative. The following are statements of how the Project Area looks and functions at some future point.

- Habitat quality is no longer being degraded or is only minimally affected as a result of sediment accumulation.
- The reduction of sediment deposition is promoting healthy wetlands with more and better habitat quality, especially for migratory birds and other wildlife.
- Sediments are no longer accumulating to detrimental levels that once decreased storage capacity in the Refuge pools.
- Invasive plant infestations are no longer at levels that degrade wildlife habitat.
- Flood impacts are being kept to a minimum because steps have been taken to expand floodplain acres and, thus, storage volumes within Refuge pools.
- There are no longer spikes or are only minimal spikes in turbidity levels in the Thief River after water is released out of the Refuge.

CHAPTER 2. PROPOSED ALTERNATIVES, CURRENT CONDITIONS, AND EFFECTS

ALTERNATIVES ANALYZED IN THIS EA

This chapter presents two alternatives –

- Alternative A. No Action
- Alternative B. Proposed Action: Mud River Floodplain Enhancement and Channel Improvement (Preferred Alternative)

ENVIRONMENTAL ANALYSIS PROCESS

The environmental analysis process, to prepare this environmental assessment (EA) for the proposed "Mud River Enhancement Project," began in spring 2026. Project planning and environmental analysis process were conducted in accordance with the numerous laws, regulations, and policies listed in Appendix A.

The two alternatives were analyzed for beneficial and adverse effects. Existing conditions of resources on the Refuge are identified in the context of how there are currently affected as a result of no management actions (Alternative A) in the proposed Project Area. The current conditions discussed under Alternative A are carried forward to Alternative B in order to understand how those conditions would be changed or improved.

The effects discussion for Alternative B is organized according to five types of actions and how resources would be affected by each action under Alternative B.

IMPACT TOPICS NOT ANALYZED IN THIS EA

Impact topics cover resources that could be affected, either beneficially or adversely, by the two alternatives presented in this EA. Neither Alternative A nor Alternative B would beneficially or adversely affect the following impact topics; therefore, they were not addressed in this chapter:

Socioeconomic Setting

This topic was not analyzed because the actions proposed in this EA would have a negligible, if any, impact on the economy and demographics (characteristics and statistics of human population, especially its size, growth, density, and distribution) of the areas surrounding the Refuge. The Refuge likely provides nonmarket values, such as maintaining endangered species, preserving wetlands, education and preservation for future generations, and adding stability to the ecosystem. However, the proposed project would not have an appreciable impact on these types of nonmarket values.

Public Health and Safety and Visitor Experience

The proposed project would not result in public health concerns for visitors. Excavation could stir dry materials on a windy day, but any adverse effects on air quality would be negligible or non-existent because visitors would not be present in the Project Area. There would also be no visitor safety concerns.

Environmental Justice

The Department of the Interior, in conformance with Executive Order 12898 (and subsequent orders), requires its bureaus to specifically discuss and evaluate the impacts of their actions, programs, and policies on minority and low-income populations and communities, as well as the equity of the distribution of the benefits and risks of the decision (USDI 1995, 2016). Based on Service knowledge of the local areas, low-

income and minority residents would not be significantly or disproportionately impacted by activities associated with either alternative.

Indian Trust Resources

The Department of the Interior requires its bureaus to explicitly consider the effects of its actions on Indian Trust resources in environmental documents (USDI 1997). The federal Indian Trust responsibility is a legally enforceable obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights, and it represents a duty to carry out the mandates of federal laws with respect to Native American tribes. There are no known Indian Trust resources on the Refuge, and lands comprising the Refuge are not held in trust by the Secretary of the Interior for the benefit of Indians due to their status as Indians.

Cultural Resources

One potential threat would be to currently unknown cultural resources, but there is only a slight possibility that unrecorded archeological sites remain undiscovered in the Project Area. If cultural resources are observed or uncovered during excavation, Refuge managers would consult with the Service's Midwest Regional Historic Preservation Officer who would determine the Area of Potential Effect, the type of cultural resource, assess potential effects, and coordinate with applicable external entities, such as the State Historic Preservation Officer. Appendix A lists the acts and executive orders that protect and guide management of cultural resources; most notably, Section 106 of the *National Historic Preservation Act*.

Transportation

The project would not affect roads or highways in or near the Project Area.

TYPES OF EFFECTS

Direct and Indirect Effects

The geographic area for analysis of *direct effects* consists of lands within the immediate Project Area and *indirect effects* outside the Project Area but within the boundary of the Refuge and local downstream areas. This chapter presents an effects analysis specific to the resources present and two alternatives discussed in this chapter.

Analysis of Cumulative Effects

Cumulative effects are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, or reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions" (40 CFR 1508.7). To be considered for cumulative effects, connected actions, when viewed with other actions, would have cumulatively significant impacts (40 CFR 1508.25). Also, connected actions would have similarities that provide a basis for evaluating their environmental consequences together such as common timing or geography (40 CFR 1508.25).

ALTERNATIVE A. NO ACTION

Currently, there are no management activities occurring in the Project Area, and there would continue to be no management actions now or in the future.

Beneficial Effects

Alternative A would not result in any beneficial effects.

Adverse Effects

Under Alternative A, current issues and problems, expressed in Chapter 1, would not be resolved, the purpose and need would not be met, and goals (desired future conditions) would not be realized. There would continue to be short- and long-term direct adverse effects on habitat in the Project Area from lack of management actions.

Habitat conditions would continue to deteriorate as a result of sediment accumulation in wetlands, and the wetlands would continue to be infested with invasive plants. The areas with only monotypic plant communities, such as reed canary grass, cattails, and willows, would continue to be devoid of a variety of quality wildlife habitat and thus, biodiversity. Monotypic plant communities would continue to create the following problems in the Project Area and other parts of the Refuge:

- Reed canary grass is a tall, aggressive grass that forms impenetrable mats and outcompetes native plants for sunlight and nutrients and decreases biodiversity and, thus, wildlife diversity.
- Cattails create thick, monotypic stands that reduce water flow, lower oxygen levels, dominate shorelines, reduce biodiversity, and choke waterways.
- Willows destroy habitats by clogging waterways, altering hydrology, and outcompeting native vegetation, leading to reduced biodiversity and increased flooding. Their aggressive, widespread root systems destroy infrastructure, while dense thickets ruin aquatic systems.

There would continue to be potential for increased flood impacts as sediment displaces storage volume in the current floodplain and Refuge pools. There would also continue to be periodic spikes in turbidity levels in the Thief River when releases of water transfer sediment out of the Refuge.

ALTERNATIVE B. PROPOSED ACTION: MUD RIVER FLOODPLAIN ENHANCEMENT AND CHANNEL IMPROVEMENT (PREFERRED ALTERNATIVE)

The proposed Mud River Floodplain Enhancement and Channel Improvement alternative ("Mud River Enhancement Project") was designed to address various problematic conditions along the 6-mile stretch of the Mud River (see figure 3 and figure 4). The Work Team's development of Alternative B was guided by design principles (MBWSR 2015, MBWSR 2018, TRPP 2020); the following are based on those principles:

- There should be a cost-effective, functioning channel design that is based on fluvial geomorphic principles.
- At least 80% of Mud River flow should be directed to channel enhancement.
- The channel should be self-sustaining, which means the majority of the channel would not require regular mowing or sediment cleanout.
- There should be diverse vegetative communities that connect existing desirable species through irregular floodplain grading and planting to disrupt the existing monoculture.

The desired project outcomes and benefits are increased meandered stream habitat, improved water quality and quantity across the watershed, increased floodplain access during flood events, a 6-mile increase in stream habitat, and an additional 700 acres of floodplain access over the current 300 acres, resulting in a total 1,000 acres of floodplains.

FIGURE 3. MUD RIVER ENHANCEMENT PROJECT LOCATION IN AGASSIZ NWR

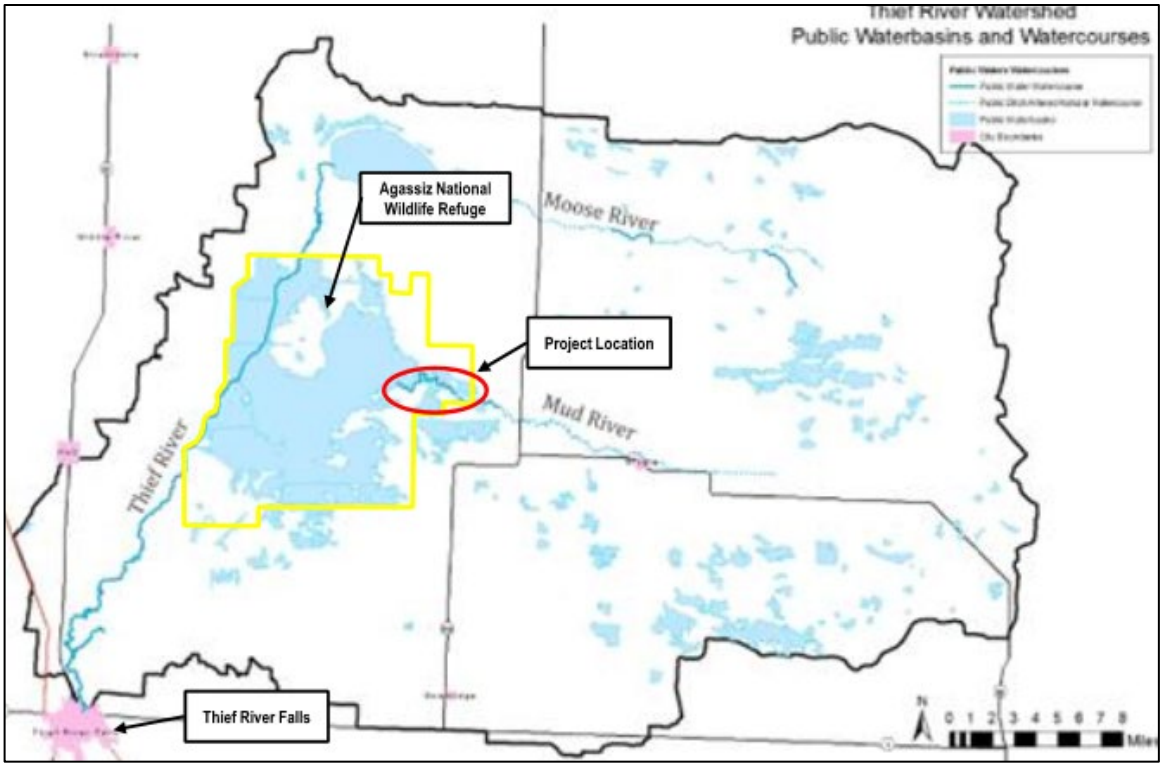
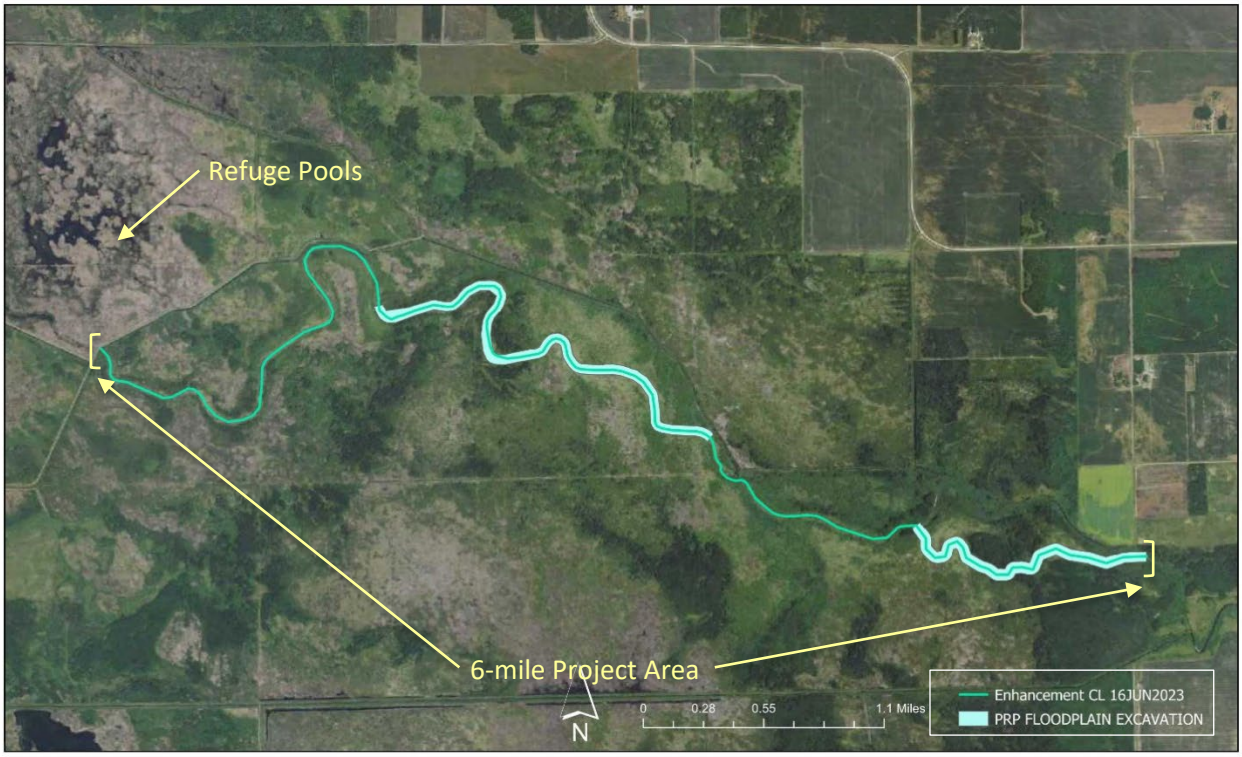


FIGURE 4. PROPOSED FLOODPLAIN EXCAVATION



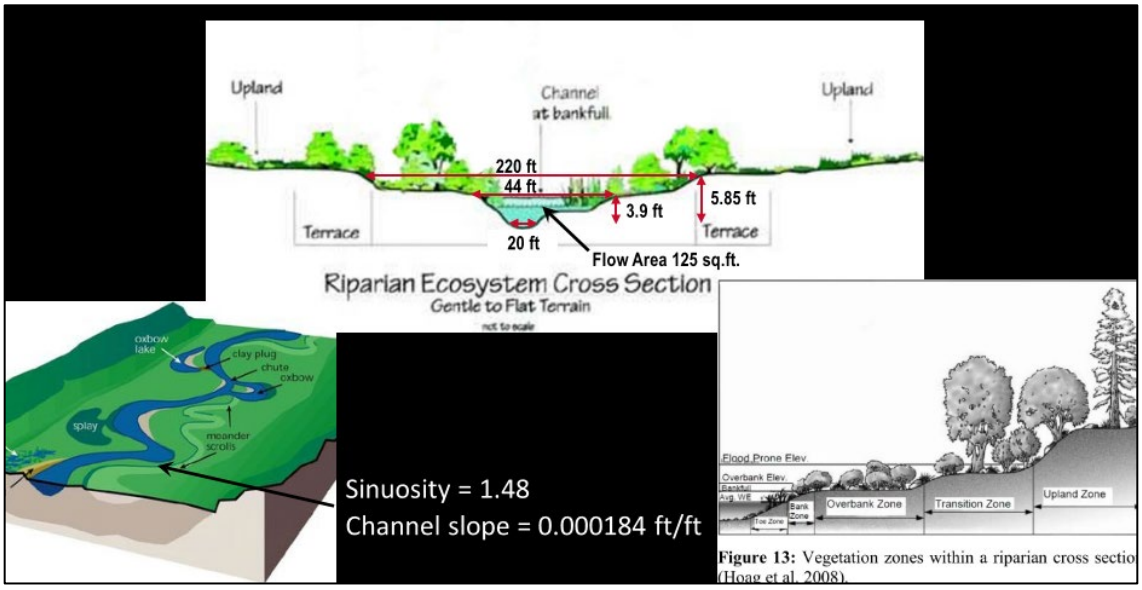
Alternative B proposes various actions to correct current issues and problems. Those are described below, along with beneficial and adverse effects that could result from implementation of those actions.

Action 1

Alternative B proposes to modify the existing flow, which is currently split at the junction of JD 11 Main Ditch and the Diversion Channel. Currently, about 78% of the flow goes through JD 11, and 22% goes through the Diversion Channel. The intent of this alternative is to reconnect an historic Mud River channel, which has been identified from aerial imagery and ground-truthing surveys. Under low-flow conditions, up to the two-year run-off event, Alternative B would route all flow into the Diversion Channel, which would be relocated by excavating a new channel in the historic Mud River bed that goes through DNR's Eckvoll Wildlife Management Area (WMA) and Refuge and into the main Refuge pool. Modifying existing ditches with set-back levees or converting them to two-stage channels could also achieve desired floodplain characteristics.

The current peak flow into Agassiz pool is 675 cubic feet per second (cfs), and the proposed flow would be reduced to 575 cfs. Alternative B proposes a bottom channel width of 20 feet to an upper channel width of 44 feet (figure 5) This alternative also proposes to increase the floodplain from the current bankful channel width of 220 feet to 440 feet wide.

FIGURE 5. PROPOSED CHANNEL AND FLOODPLAIN DIMENSIONS SUMMARY



Effects of Action 1. As stated above, the current peak flow into Agassiz pool is 675 cfs; the proposed flow would be 575 cfs. Alternative B would route base flows into the new, enhanced channel, thus prohibiting water from backing up into local ditches upstream. Alternative B would result in beneficial effects in that it would help minimize sediment impacts in the watershed and reduce sediment transported downstream to the Thief River. Alternative B would enhance wildlife habitat and hydrology, reduce potential for upstream and downstream flooding, and reduce sediment infilling in Refuge impoundments. Action 1 would result in long-term direct and indirect beneficial effects.

The additional storage capacity in the floodplain and pools could prevent an overrun in the spillways upstream of the Refuge during 3- to 4-inch rain events. It's important to note that when a rain event

moves into and through the Refuge from upstream, it is possible that a few spillways, in the upstream side, may be used, but as water continues to flow, the water control structures would be opened to reduce the rise in the water level and manage excess water. These actions would help prevent temporary adverse effects in the Project Area.

Action 2

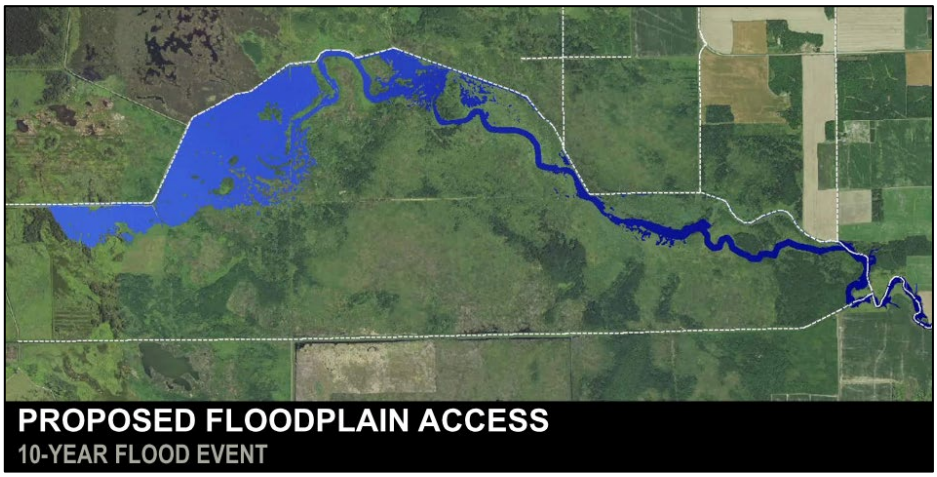
Excess sediment deposition degrades waterfowl habitat, reduces water storage, and affects downstream water quality (USEPA 2026a). Alternative B proposes to excavate a floodplain along a new channel, which would expand the floodplain area from the existing 300 acres to approximately 1,000 acres – an addition of 700 acres. The larger floodplain would naturally capture sediment during flood events. However, sediment would continue to accumulate at the downstream end of the enhanced channel, which is an unavoidable situation because the stream gradient (slope) flattens out in that area.

Effects of Action 2. Floodplains are critical ecological and hydrological areas that provide vital benefits, including natural flood risk reduction, groundwater recharge, and enhanced water quality. They act as sponges that slow, store, and absorb floodwaters. These areas support immense biodiversity by providing important habitat for wildlife (MDNR 2026a; FEMA 2026). Some of the key long-term beneficial effects that would be realized from expansion of the floodplain, include the following (FEMA 2026):

- There would be a reduction in downstream flood severity by storing, slowing, and conveying floodwaters.
- Floodplains are biologically rich, so an expanded floodplain would provide better food and shelter for birds and other wildlife.
- Floodplains help reduce water velocity, thereby preventing erosion and stabilizing riverbanks.

Flood reduction efforts would result in minor to major, long-term direct and indirect beneficial effects because the expanded floodplain (figure 6) would reduce peak flows downstream and, as a result, sediment would drop down more efficiently in the floodplain along the new channel. The proposed new channel design would route a much larger portion of the Mud River flow into the new channel and less into the JD 11 Main Ditch. This proposed design would target up to the 10-year run-off event. Drainage on upstream areas, including private property and Eckvoll WMA, would be improved and would not be subject to flooding. However, this design would not change conditions if larger flow events occur.

FIGURE 6. PROPOSED FLOODPLAIN ACCESS



Action 3

Alternative B proposes to improve conditions in the Project Area by reducing current, and preventing future, infestations of reed canary grass and similar invasive plants, which have degraded or reduced habitat diversity and, therefore, wildlife presence in the Project Area.

Canary reed grass (photo credit: MN DNR)

Dense stand of cattails (photo credit: USFWS)

Effects of Action 3. Alternative B would improve current and future undesirable conditions that reed canary grass, cattails, and other invasive plants have created in the Project Area and Refuge. Implementation of Alternative B would result in long-term, moderate to major, direct and indirect beneficial effects by helping correct the following problems and issues:

- Invasive plants outcompete native vegetation for sunlight, water, and nutrients. Dense mats of invasive plants can reduce water circulation and significantly lower dissolved oxygen levels, leading to hypoxic (inadequate oxygen) conditions unsuitable for many aquatic species.

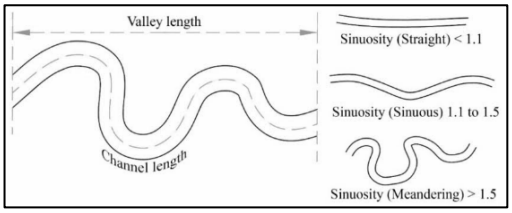
- The greatest issue in the Project Area is canary reed grass, which is a highly invasive, rhizomatous perennial that forms dense, single-species monocultures in wetlands and riparian areas. It suppresses native biodiversity, impairs wetland ecological functions, and obstructs water management infrastructure. It outcompetes native plants by creating thick, impenetrable sod mats (up to 1.5 feet thick) that prevent the regeneration of native species. Dense stands offer poor habitat for wildlife, reduce native biodiversity, and restrict access for birds and small mammals (SDSUE 2021).

- Cattails replace diverse native riparian plants and reduce plant diversity and habitat complexity. Invasive cattails grow thick, dense root systems (rhizomes) and produce high amounts of organic litter. This debris builds up, trapping sediment and increasing sedimentation, which reduces water depth and can increase flood risks. While some wildlife may use cattails, their aggressive growth suppresses plant species that support a diversity of native birds, butterflies, and other wildlife (USGS 2020). The immediate Project Area is not infested with cattails, but other areas in the Refuge could indirectly benefit from conditions that prohibit the growth of cattails.

  Even though cattail is considered an invasive plant in many ecosystems, it does provide beneficial ecosystem services, such as forage and shelter for certain animals (like muskrat). Cattails help reduce pollution through bioremediation, where it breaks down and removes waterborne contaminants (USGS 2020).

Action 4

Excavating or dredging would be used to form bends or meanders (referred to as "sinuosity") in the riverbed. The intent of Action 4 is to create physical features that would help streams manage high flows. Placement of intermittent stream characteristics, such as pools and riffles (figure 7 and figure 8) would result in a mixture of flows and depths (PSUE 2025).



This general illustration shows various levels of sinuosity (PSE 2025).

FIGURE 7. PROPOSED FLOW CONCEPT UNDER ALTERNATIVE B

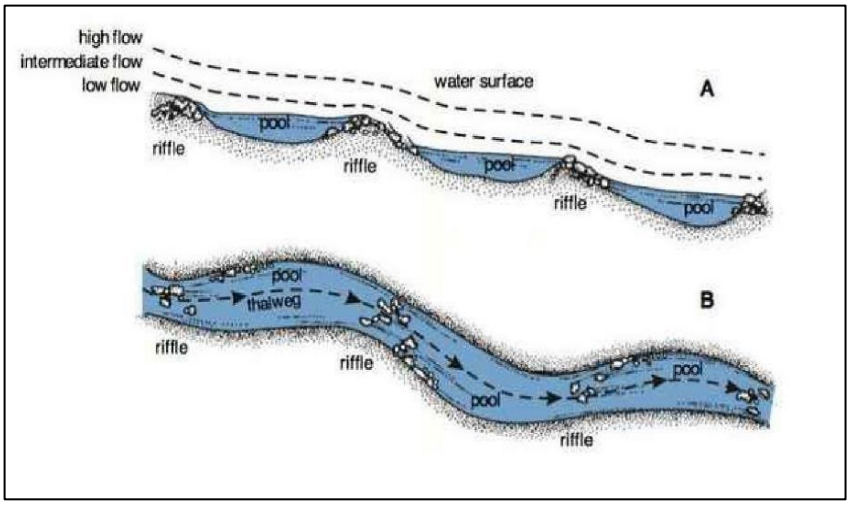
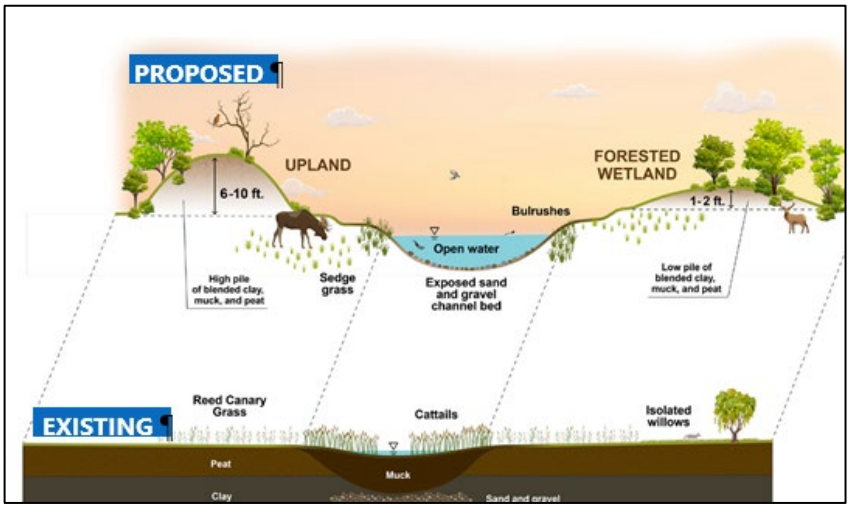


FIGURE 8. EXISTING AND DESIRED CONDITIONS OF THE MUD RIVER



Riffles are shallow, fast-flowing sections of a stream or river that are characterized by turbulent water bubbling over gravel, cobble, or boulders. Pools are deep with slow water (LSS 2026). Further improvements could potentially include such features as root wads and rock vanes. A root wad is a mass of roots, soil, and sometimes stumps left at the base of a tree after it has fallen or been uprooted. There are also artificial root wads (Sylte and Fischenich 2000). Rock vanes are in-stream structures formed by large boulders and used, primarily, to reduce streambank erosion and enhance aquatic habitat (Sylte and Fischenich 2000).

Effects of Action 4. Dredging and excavation would result in long-term, moderate to major direct beneficial effects because sinuosity, or many curves, would lead to a more stable stream that is better able to moderate high flows after storms and would create more diverse habitat for aquatic and other wildlife (PSUE 2025; MDNR 2006b). Having a high level of sinuosity would increase the distance that water travels, slow the flow of water, and increase the volume of water that the Mud River could hold (PSUE 2025). Since winding streams are generally more stable, they are often able to access their floodplain better than straightened streams. When water is able to flow into the enhanced floodplain, there may be temporary flooding in some areas, but it also means there would be much less destructive flooding downstream. As streams rise and leave the channel, flows would be spread out over a wider area and slow down. Water would be absorbed by the adjacent riparian area, meaning less water overall would be transported downstream compared to a waterway that is straighter and confined within its banks (PSUE 2025).

The creation of riffles and pools would provide natural habitat functions during low flows. Riffles are known as the "lungs of the river" because they increase dissolved oxygen levels and provide vital habitat for aquatic invertebrates. Riffles typically alternate with deeper, calmer pools. The vertical force of the water falling down on the other side of a riffle would carve out a pool in the stream. One of the benefits of slow-moving water is that organic debris settles out into it. (LSS 2026). Action 4 would result in long-term, major beneficial direct effects from the mixture of flows and depths (riffles and pools), which would provide a variety of aquatic habitats (LSS 2026).

Root wads would be beneficial for streambank stabilization and to create riparian habitats for cavity-nesting species such as wood ducks, wrens, chickadees, tree swallows, and hooded mergansers. Root wads are often a cost-effective bank stabilization and habitat enhancement treatment (Sylte and Fischenich 2000). Rock vanes would help (1) reduce erosion by redirecting high-velocity flow away from the outer banks of bends, thus reducing shear stress on the bank; (2) prevent the channel from cutting deeper (downcutting) by anchoring the channel elevation; (3) create deep, calm scour pools on their downstream side; (4) encourage natural sediment transport by creating gravel bars (sediment sorting), which are beneficial for aquatic life; and (5) maintain a stable width-to-depth ratio in the channel (Hickman and Thompson 2026).

Action 5

Channel improvement work would occur in specific areas along the channel. Alternative B proposes to dredge portions of the current watered Mud River channel and excavate dry portions. Action 5 would create berms or mounds (figure 9) of waste material (such as soil, sediments, or debris) from the repurposed dredged and excavated materials (referred to as “spoils”).

The entire Project Area is classified as a wetland. Figure 10 shows proposed wetland types along the project corridor that could result under Alternative B. Wetlands are primarily regulated by the U.S. Army Corps of Engineers and Environmental Protection Agency (EPA 2026b) under Section 404 of the *Clean Water Act* (CWA). The CWA is the primary piece of national legislation that regulates activities in and around wetlands and protects our nation's waters. The CWA prohibits discharging dredged or fill material into "waters of the United States," including wetlands, without a permit. The CWA requires that the deposition of dredged material be placed on current disturbed areas, such as ditch corridors or outside wetland areas. The U.S. Fish and Wildlife Service manages wetlands on its refuges in compliance with the CWA, and will ensure compliance with Section 404 of the CWA before and during project implementation.

FIGURE 9. PROPOSED AREAS FOR PLACEMENT OF EXCAVATED MATERIALS

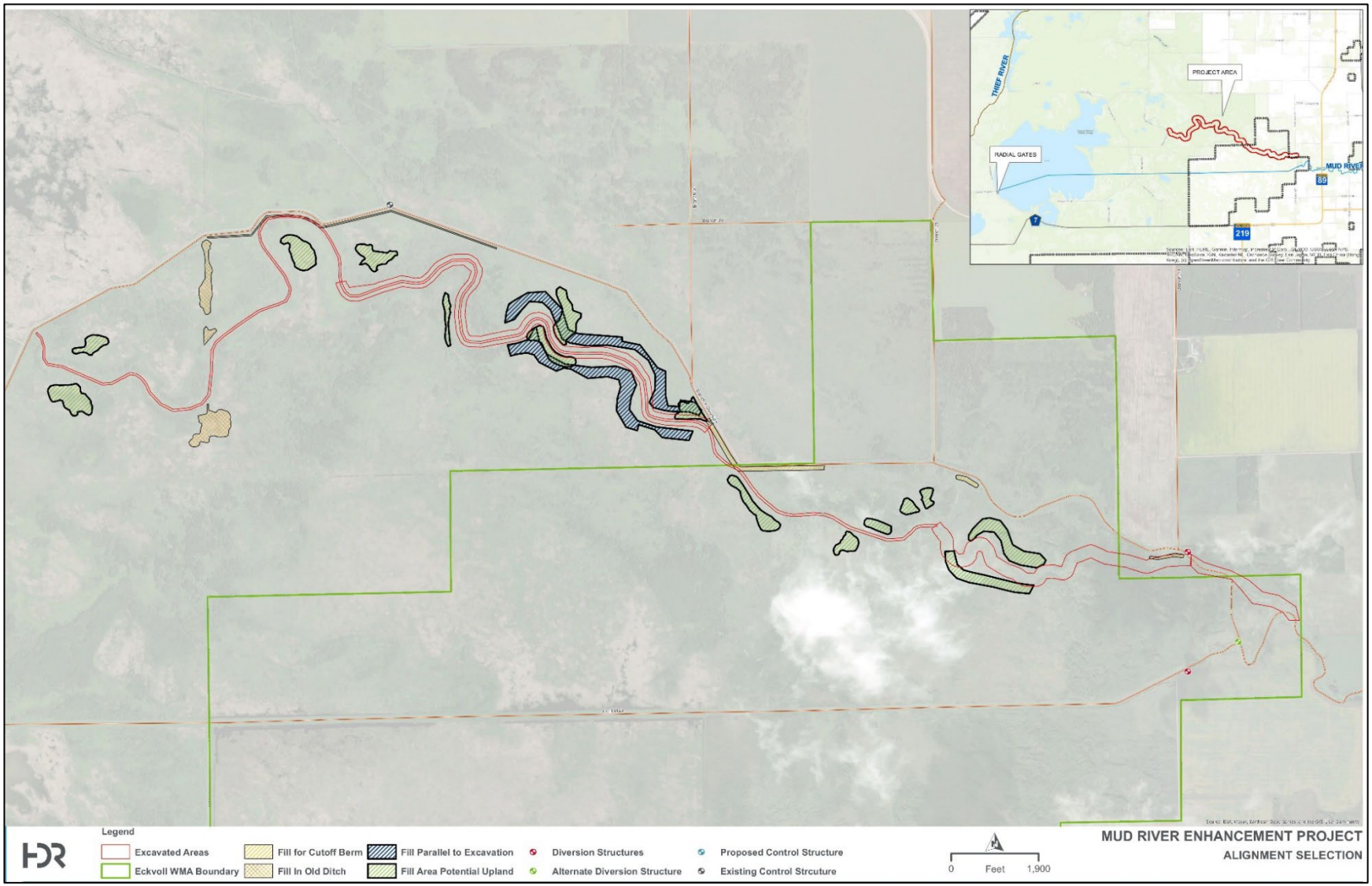
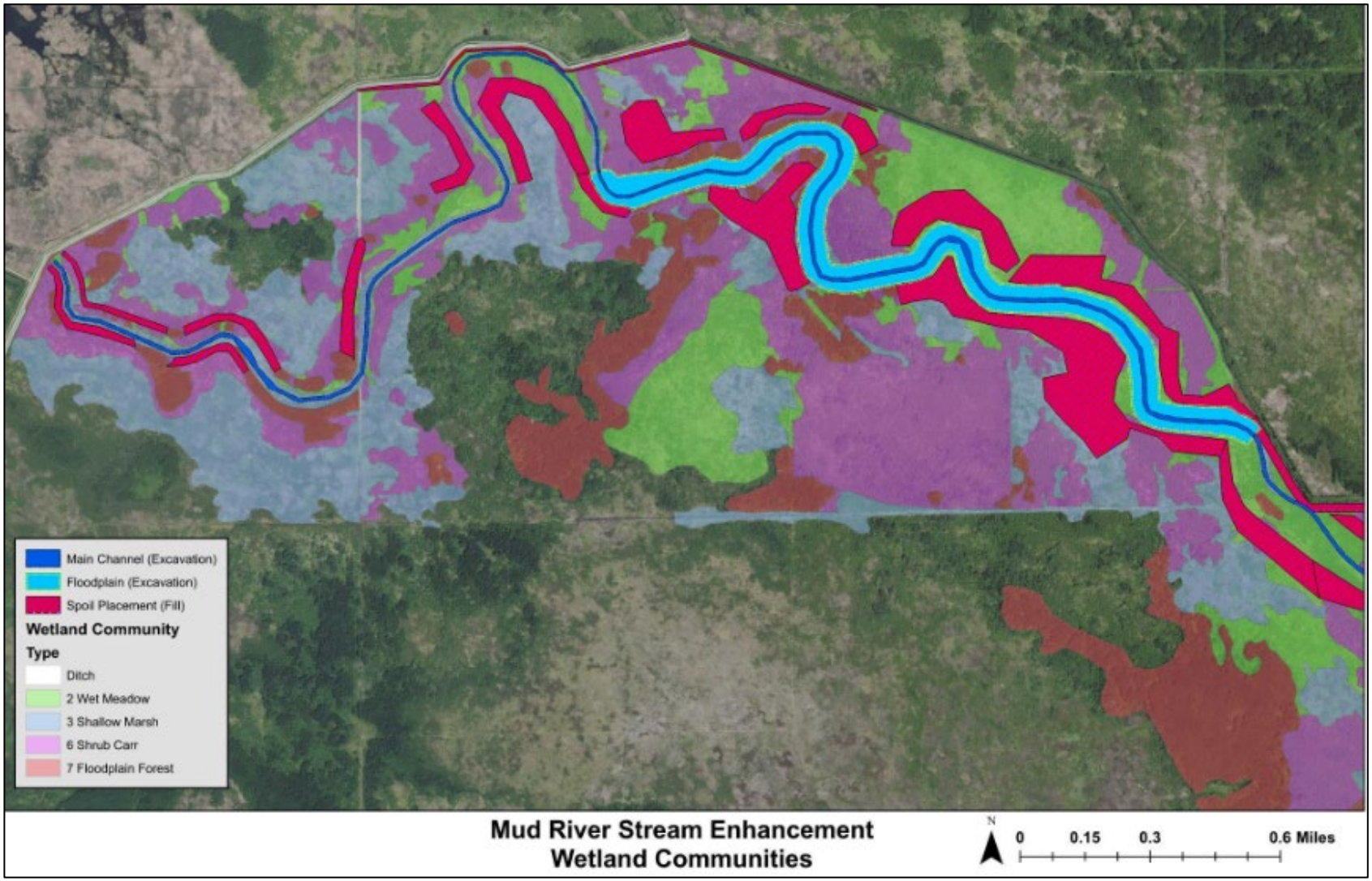


FIGURE 10. PROPOSED WETLAND TYPES ALONG THE PROJECT CORRIDOR



Effects of Action 5. The creation of berms or mounds, from the repurposed dredged and excavated materials, would enhance existing habitat areas and create new upland and forested habitat communities within the project footprint, particularly if those areas are planted with native trees, shrubs, grasses, and forbs and cover 70% to 100% of the ground (USFWS 2016). The wooded spoil areas would increase existing forested/shrub communities, thereby increasing diversity of cover and additional edge habitat for local wildlife – this would result in long-term, moderate to major direct beneficial effects.

Dredging activities could result in temporary adverse effects on aquatic resources in the areas scheduled for channel improvements, but the enhanced flows and function of floodplain wetlands would exceed the current limited function and values that might temporarily be lost during dredging. There may be temporary, minor direct adverse effects on invertebrate species that may inhabit portions of the channel currently containing water. The areas along the channel contain monotypic plant communities, which not only lack plant diversity but wildlife presence. Therefore, there would be no or only minimal chance of adversely affecting terrestrial wildlife.

The below photos show what many portions of the Project Area looks like and how an area might look after the repurposed materials are planted with native plant species. The wooded spoil areas would promote desired forested habitat communities and expand existing forested/shrub communities. Action 5 would result in moderate to major direct beneficial effects, in the short- and long-term, by increasing diversity of cover and providing additional edge habitat for local wildlife.

Current monoculture of canary reed grass. Desired future conditions that would support plant and wildlife diversity.

There would be no adverse effects from channel excavation in the dry bed of the historic Mud River channel because those areas are currently not used by most wildlife species due to lack of water and poor habitat conditions. As with dredging activities, there would be no or only minimal chance of adversely affecting wildlife.

Alternative B Summary of Effects

Beneficial Effects. Alternative B would result in long-term, direct and indirect beneficial effects that would range from moderate to major as desired future conditions are being achieved, the project's purpose and need

are being met, and issues and problems are being corrected. The greatest beneficial effects would be realized if, at some point in the future, the Project Area resembles the desired future conditions described earlier in Chapter 1.

Adverse Effects. Dredging and excavation would be the only activities that could result in temporary, negligible to minor direct adverse effects on aquatic wildlife (such as invertebrates) during project implementation. The monoculture of canary reed grass in the Project Area provides poor wildlife habitat, thus few wildlife visit the area. Noise from dredging and excavation may cause birds and small mammals to leave the immediate Project Area, but there are many other areas on the Refuge to which they can move. Project activities would result in temporary, negligible adverse effects on wildlife.

Cumulative Effects. There is one possible future project ("Thief River/State Ditch #83"), currently in the planning stages, that would occur downstream of the Mud River Enhancement Project. That future project would benefit from the proposed Mud River Enhancement Project, which proposes to reduce the quantity of water going down the watershed during high-water events. However, the Thief River/State Ditch #83 Project would not beneficially or adversely affect the upstream Mud River Enhancement Project.

Other than the future "Thief River/State Ditch #83 Project," there would be no potential for cumulative effects because

- there are no *current actions*, by public or private landowners, on lands surrounding the Refuge that could contribute to cumulative effects; and
- there are no other reasonably foreseeable *future actions* that have been identified, by public or private landowners, to occur on lands surrounding the Refuge, that might contribute to cumulative effects.

ALTERNATIVES CONSIDERED BUT DISMISSED FROM ANALYSIS

Pass-Through Concept

Alternative C would have been bigger and more complex than the floodplain enhancement approach in Alternative B. This would have been the Service's long-term, larger-scale solution to the harmful effects of in-channel storage. This strategy was intended to be the focus of a Refuge climate adaptation workshop that was scheduled to take place in 2023.

The concept would have involved improvements to the existing on-Refuge infrastructure to allow flows and sediment to pass through the Refuge to State Ditch 83 (SD 83), thus bypassing Refuge impoundments. This concept would have required substantial modifications to current Refuge infrastructure but would allow the Refuge to conduct off-channel impoundment management by taking flows off the pass-through ditches selectively, as needed, to manage pool levels. The 15 ditches that transport water from the upper watershed (624 square miles) into the Refuge would have required analysis, as well as an update to the Refuge's operational plan. Alternative B would have complemented this strategy by allowing for natural sediment deposition upstream of the Refuge pools, thereby, reducing sediment loads in SD 83 downstream of the Refuge during high flow events.

Financially Unfeasible

This larger proposal was well into the conceptual stage, but it was determined it would not be financially feasible to implement at this time.

Sediment Capture Concept

This alternative was to construct a sediment-capture basin upstream and off Refuge lands. This alternative would have required the acquisition of a sizable piece of land due to the large extent of the contributing watershed. The highest sediment yields are occurring between the Refuge and the upper watershed. This area is predominately in agricultural production, and the lands do not have the desirable topography and hydrological characteristics to offer practical implementation of a sediment basin project. Application of on-farm best management practices have proven to reduce sediment loads and are more cost-effective than large-scale sediment basins.

Potential Challenges with this Alternative

- Lack of suitable topography and hydrological characteristics.
- Land acquisition costs.
- The "One Watershed, One Plan" already considers best management practices that attempt to accomplish what this concept is considering.
- Land use and sediment yield in the watershed is most concerning immediately upstream of the Refuge, where land use is predominately agricultural.

Reasons for Dismissal

- Moose River Impoundment is already in place upstream.
- A large-scale sediment reduction facility is not cost-effective when compared to best management practices.
- The agricultural region upstream of the Refuge does not have the topography to effectively store and detain sediment in a cost-effective manner.
- Social acceptance for a dedicated sediment retention facility upstream of the Refuge is unlikely.
- Effective sediment reduction would require diversion of substantial volumes of water, which would require difficult wetland permitting and on-channel adverse impacts.

Technically Unfeasible

The upstream drainage area is 200 or more square miles, and the residence time required to effectively remove sediment from floodwaters from a 1-square-mile site would only treat a negligible volume of water generated from a runoff event.

CHAPTER 3. COLLABORATIVE PLANNING, CONSULTATION, AND PUBLIC INVOLVEMENT

COLLABORATIVE PLANNING

The U.S. Fish and Wildlife Service, Red Lake Watershed District, and Minnesota Department of Natural Resources initiated the planning process for the proposed "Mud River Enhancement Project" in the summer of 2021. They conducted a preliminary engineer's report to identify a potential enhancement project in the old channel of the Mud River, Marshall County, Minnesota.

The Red Lake Management District identified entities and individuals to serve on the "Mud River Enhancement Project Work Team." The Work Team's first meetings were in 2021, and they continued meeting numerous times each year through the end of 2023. The following were members of the Work Team:

- U.S. Fish and Wildlife Service, Agassiz NWR
- Red Lake Watershed District staff and board managers
- Minnesota Department of Natural Resources
- Minnesota Board of Water and Soil Resources
- Soil and Water Conservation Districts
- Minnesota Pollution Control Agency
- Flood Damage Reduction Work Group
- United States Army Corps of Engineers
- Area landowners, sportsmen's clubs, and county and township representatives

CONSULTATION

The *Endangered Species Act of 1973* directs all federal agencies to participate in conserving federally listed species. Specifically, section 7(a)(1) of the Act charges federal agencies to aid in the conservation of listed species. Section 7(a)(2) of the Act requires that agencies, through consultation with the U.S. Fish and Wildlife Service, ensure their activities are not likely to jeopardize the continued existence of listed species or destroy or adversely modify their critical habitat.

The Service consulted with its endangered species staff and prepared appropriate paperwork required for consultation under 16 U.S. Code Section 1531 et seq., the *Endangered Species Act* 4D rule or Section 7 (of the *Endangered Species Act*)

NOTIFICATION AND COMMENT PERIOD FOR THIS DRAFT EA

Notification

The Service sent a press release to *Thief River Falls Times* and *Northern Watch* – both published in Thief River Falls, Minnesota. The press release included a link, from which people can download the draft EA, and the physical address to where people can send written comments on the draft EA.

Draft EA Availability

The draft EA can be downloaded from https://www.fws.gov/refuge/aggassiz/. The draft EA is a PDF (Portable Document Format) file and is Section 508 compliant, meaning it is accessible to assistive

technology. (Note: Section 508 is an amendment to the *Rehabilitation Act of 1973*.) Upon request, paper copies of the draft EA will be sent via U.S. mail. Please call 218.503.2127 to request a paper copy.

Only written comments will be accepted.

Mail written comments to

Refuge Manager, Agassiz NWR
22996 290th St. NE
Middle River, MN 56737

Comment Period

The public comment period for this draft EA is from June 1, 2026, to June 30, 2026 (30 days).

Comments are most helpful when they are specific; for example, what is the particular area or action that concerns you? Do you have specific habitat and wildlife species concerns regarding the project? What potential adverse effects worry you? Again, please be specific.

Importantly, thank you for your interest and participation in the Mud River Enhancement Project.

PLANNING TEAM AND REVIEWERS

Name, Title	Responsibility
Agassiz NWR, Refuge-Level Planning	
James Graham, Refuge Manager	Refuge lead on the project Work Team Develop purpose and need and alternatives Coordinate with EA contractor Review and comment on this EA Review public comments on the draft EA and provide responses
U.S. Fish and Wildlife Service Region 3 Planning	
	Review and comment on the environmental assessment Ensure *National Environmental Policy Act* compliance
	Review and comment on the environmental assessment
	Review and comment on the environmental assessment
Project Planning Contractor	
HDR?	
EA Preparation Contractor	
Susan Hale	*National Environmental Policy Act* compliance; write and edit environmental assessment Review public comments on the environmental assessment

Equal opportunity to participate in and benefit from programs and activities of the U.S. Fish and Wildlife Service is available to all individuals regardless of physical or mental ability. Dial 711 for a free connection to the state transfer relay service for the hearing impaired. For more information or to address accessibility needs, please contact the refuge staff or the U.S. Department of the Interior, Office of Equal Opportunity, 1849 C Street NW, Washington, DC 20240.

U.S. Fish and Wildlife Service Contact

James Graham, Refuge Manager
Agassiz National Wildlife Refuge
Refuge Headquarters: 22996 290th St. NE
Middle River, MN 56737
Email: james_graham@fws.gov
Phone: 218.503.2127

June 2026

Appendix A: Legislation, Mandates, and Policies that Guide Management of U.S. Fish and Wildlife Service Lands

Draft Environmental Assessment

for the

Proposed Mud River Enhancement Project

Agassiz National Wildlife Refuge

June 2026

April 22, 2026

Tammy Audette, Administrator
Red Lake Watershed District
1000 Pennington Avenue South
Thief River Falls, MN 56701

<delivered via email>

RE: Proposal – Red Lake-Polk County Line Ditch Stabilization Feasibility Study

Dear Mrs. Audette,

HDR Engineering, Inc. (HDR) is pleased to provide the following proposal for Red Lake-Polk County Line Ditch Stabilization Feasibility Study services.

We appreciate the opportunity to present our qualifications and we thank you for considering HDR. If you have any questions regarding the attached scope of services, please contact me at (218) 681-6100.

Sincerely,
HDR Engineering, Inc.

Dillon Nelson, P.E.
Project Manager

Keith Quernemoen
Sr. Vice President

Encl: HDR Engineering, Inc. Terms and Conditions for Professional Services

Project Understanding and Scope of Services

We understand that Red Lake Watershed District (RLWD) is seeking services to perform a feasibility study to restore the deteriorating condition of a roadside ditch and outfall to the Red Lake River, located approximately 9.5 miles northeast of Crookston and 7.5 miles southwest of Red Lake Falls. The section of roadside ditch being assessed in this proposal runs along the north side of Red Lake County Road 110 from CSAH 11 for approximately 0.5 miles to the end of County Road 110 where the ditch transitions to an approximately 1000-foot outfall section through a wooded area to the Red Lake River. It is understood that the main source of erosion is within the 1000-foot outfall section through a wooded area. HDR is committed to helping you analyze and repair this segment with a design that is appropriate for the site-specific conditions, and economical to build and maintain. This scope includes the following tasks and deliverables deemed necessary for this preliminary design.

This Project includes the following tasks:

1. Project Management & Coordination
2. Existing Conditions Assessment
3. Subsurface Investigation Field Coordination
4. Feasibility Assessment
5. Wetland Delineation

Proposed Action Description

The primary purpose of this Project is to develop a long-term sustainable design for the roadside ditch and wooded outlet along County Road 110 west of CSAH 11. The future condition will reduce the risk of land loss, sediment loading to the Red Lake River, and long-term maintenance costs. HDR will assist in the development of a plan utilizing State and regional design practices, including RLWD goals and objectives, to help guide the planning and design efforts.

This plan will consist of multiple phases over the lifetime of the Project. A feasibility study will be performed to identify an appropriate alternative that can be carried forward to the design phase. A subsurface investigation will be performed by a third-party contractor. We feel that it is critical that site-specific geotechnical data is used when developing long-term solutions. This system shows consistent sloughing on the slopes which may be a sign of head-cutting due to high flows, groundwater, or a weak soil layer. Once subsurface data has been collected and laboratory tests performed, a geotechnical analysis will be performed to develop alternatives. The findings will be summarized in a feasibility study document and include the recommended alternative with a concept level estimate of construction costs. In addition, a wetland delineation will be performed to guide future permitting efforts.

Qualifications

Key Personnel

Dillon Nelson, PE (MN #58711) – Project Manager

Dillon brings our clients more than 10 years of experience in water resources management and municipal design. Dillon has managed and been the lead engineer on multiple county drainage ditch projects, large-scale flood damage prevention, municipal storm water management projects, and bridge replacement projects adhering to State Aid Standards. He has experience with Minnesota Statutes Chapters 103D and 103E, implementing these projects through numerous local and state funding programs, as well as the permitting process for various types of construction activities.

Kerrie Berg, PE (MN #57134) - Project Engineer
Kerrie brings more than 20 years of experience working on a wide range of projects involving slope remediation, erosion control, dam and levee design, and flood damage reduction projects. Kerrie has analyzed and designed multiple slope remediation projects for large county ditch systems in Northwestern Minnesota. She previously served as the District Manager of Cook County SWCD in Grand Marais, MN and has project experience working and coordinating with multiple stakeholders.

Scope of Services

1.0 Project Management & Coordination

This task consists of the overall management of the project, project communication, and coordination of meetings.

1.1 **Project Management**. Monitoring and control of the Project budget, scope of work, and schedule; management of the Project goals and objectives; management and coordination of resources including staff scheduling and invoicing.

1.2 **Coordination and Meetings**. Schedule, review, prepare, participate, and help conduct coordination meetings amongst partners.

DELIVERABLES:

- Monthly invoices and coordination with RLWD.
- Schedule and prepare two meetings to present and discuss slope remediation alternatives.

ASSUMPTIONS:

- Duration of the task is ~5 Months.

2.0 Existing Conditions Assessment

An existing conditions assessment for the ditch from CSAH 11 to the Red Lake River will be performed.

2.1 **Site Reconnaissance and Geotechnical Exploration Plan.** A site visit to complete a visual inspection of the existing conditions will be carried out along with a topographical survey of key features.

DELIVERABLES:

- Field Survey and Photos.
- HDR will develop a subsurface exploration and laboratory testing proposal.

ASSUMPTIONS:

- Duration of the task is ~1 month.
- HDR will complete survey of key features.
- RLWD and Red Lake County SWCD will provide an overall topographic survey of the site.

3.0 Subsurface Investigation Field Coordination

HDR will assist in obtaining cost estimates from a third-party geotechnical contractor to provide soil boring and laboratory testing at locations agreed upon by RLWD and its partners. Obtaining site-specific subsurface data will be critical for the geotechnical analysis and providing alternatives that will meet the Project's goals.

3.1. **Coordination with RLWD, Project Partners, Driller, and Laboratory**. HDR will obtain up to three cost estimates from a third-party geotechnical contractor for soil boring and laboratory testing. The soil boring locations will be determined by HDR and HDR will assign the final laboratory testing schedule to the laboratory upon review of the draft borehole logs. Laboratory testing will be performed by a third-party geotechnical contractor. HDR staff will review and interpret the laboratory results.

3.2. **Subsurface Exploration.** This drilling fieldwork will be conducted by a third-party geotechnical contractor.

DELIVERABLES:

- HDR will obtain up to three cost estimates for subsurface exploration and laboratory testing from third-party geotechnical contractors.
- Soil boring location map for third-party contractor.
- Laboratory testing schedule for third-party contractor.

ASSUMPTIONS:

- Soil borings and laboratory testing will be performed by a third-party geotechnical contractor. The estimated cost for this service is approximately **$15,000**.
- RLWD will contract directly with the third-party geotechnical contractor and their costs are not included in this proposal.
- HDR staff will interpret and summarize the laboratory results, not the third-party contractor.

4.0 Feasibility Assessment

This task involves design analysis and documentation of the feasibility design for the repair recommendation. Cost estimates based on the design will be provided for funding purposes.

4.1 **Slope Stability and Seepage Analysis.** Develop soil parameters and profile based on geologic data, borehole logs, and laboratory results/correlations. Determine groundwater elevations based on borehole data and other publicly available information. Complete seepage and slope stability analysis on one critical slope. Slope repair alternatives will be modeled (up to 2 alternatives). The analysis will evaluate the design alternatives, the minimum excavations, and slopes required.

4.2 **Feasibility Study Document**. Evaluate and document up to 2 alternatives for their feasibility and practicability to meet the Project goals.

4.3 **Engineer's Opinion of Probable Construction Costs.** Provide an engineer's opinion of probable construction costs based on a feasibility design for up to 2 alternatives.

4.4 **Feasibility Design.** A feasibility design of the selected alternative will be completed.

4.5 **Hydraulic Assessment:** Perform preliminary hydraulic modeling of the existing and proposed conditions for the Project area using HEC-RAS 6.4. The 24-hour 10-year precipitation event will be evaluated, and flows will be obtained using regression equations. The modeling results will assist in design of the proposed cross-section, channel profile, and riprap gradation.

DELIVERABLES:

- Feasibility Study Document
- Engineer's Opinion of Probable Construction Costs
- Recommendation of a preferred alternative
- Feasibility design of preferred alternative

ASSUMPTIONS:

- Up to 2 geotechnical alternatives will be assessed
- Two cross-sections will be analyzed
- Detailed HEC-HMS hydrologic modeling will not be performed.
- Existing Condition HEC-RAS model will be developed. No proposed conditions will be modeled in this phase.
- No CAD drawings will be prepared in this phase.

5.0 Wetland Delineation

This task consists of completing a wetland delineation of the project site.

5.1 **Wetland Delineation**. A wetland delineation of the roadside ditch and wooded outlet along County Road 110 west of CSAH 11 will be completed. HDR will provide a desktop level and on-site wetland review of the Project area to identify potential wetland impacts. The anticipated permits will be identified. Input based on the review will be provided for grant and design purposes.

DELIVERABLES:

- Wetland delineation memo and map for future permitting.

ASSUMPTIONS:

- Duration of the task is ~1 Month.
- No permits will be submitted during this phase.

Cost Estimate

We propose to perform the tasks described in this proposal on a time and materials basis with a not to exceed fee of **$31,462**, in accordance with the task detail defined in the table below and the attached Terms and Conditions.

Additional services can be provided at the billing and mileage rates stated below with written approval from the Owner.

Rate Schedule

Task No.	Task/Title	Project Manager	Sr. Geotechnical Engineer	Geotechnical Engineer	Sr. Environmental Scientist	Sr. Water Resources Engineer	Civil Technician	Civil Designer	Project Coordinator	Project Accountant	Hours	Labor Fee
	Rate	**$ 210**	**$ 230**	**$ 180**	**$ 190**	**$ 265**	**$ 180**	**$ 125**	**$ 137**	**$ 108**		
1	Project Management and Coordination	6	0	6	0	0	0	0	4	5	21	$ 3,429.28
2	Existing Conditions Assessment	0	0.5	10	0	0	6	0	0	0	16.5	$ 2,995.00
3	Subsurface Investigation Field Coordination	0	0	10	0	0	0	0	0	0	10	$ 1,800.00
4	Feasibility Assessment	14	7	68	0	2	6	10	0	0	107	$ 19,650.00
5	Wetland Delineation	0	0	0	16	0	0	0	0	0	16	$ 3,040.00
	Totals	**20**	**7.5**	**94**	**16**	**2**	**12**	**10**	**4**	**5**	**170.5**	**$ 30,914.28**

HDR Labor Subtotal	**$**	**30,914**
Mileage ($0.75/mile)	$	548
GPS Equipment Rental ($350/day)	$	-
HDR Direct Expenses Subtotal	**$**	**548**
Sub-Consultant Fee	**$**	**-**
Total Fee	**$**	**31,462**

Billing Terms

- This estimated Fee is based upon our understanding of the scope of work and assumptions listed. Should the scope of work be modified, it may be necessary to review scope changes and adjust the Fee to align it with the modified scope.
- HDR will invoice monthly based on work progress.
- Labor Fee shall mean salaries and wages (basic and overtime) paid to all personnel engaged directly on the Project. The Labor fee was derived from HDR's labor rates times a multiplier to cover overhead costs. Individuals not listed in the attached rate table will be billed at a similar multiplier of their direct salary. The Labor Fee above reflects 2026 calendar year rates. If the contract extends beyond 2026, the Labor Fee will be adjusted as of the first of the year to reflect equitable changes to the compensation payable to personnel on remaining work.

Please indicate your acceptance of this proposal by signing the Notice to Proceed (below) and returning one copy of the signed proposal to HDR. If you have any questions, please contact me at 218.681.6100.

NOTICE TO PROCEED

Owner: **Red Lake Watershed District**

By:_____

Name: _____

Title: _____

Consultant: **HDR Engineering, Inc.**

By: _____

Name: Keith Quernemoen

Title: Sr. Vice President


Alice Dr
158th St NE
Hanson Dr
Ditch 14
150th Ave NE
Image © 2026 Airbus

Red Lake Watershed District

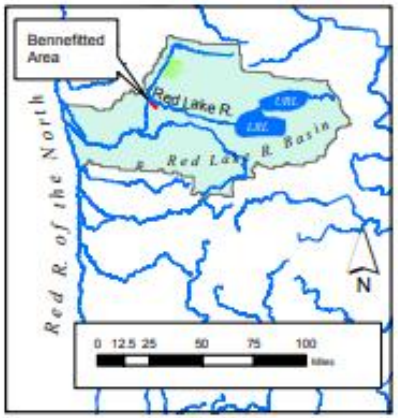
Project 171/171A

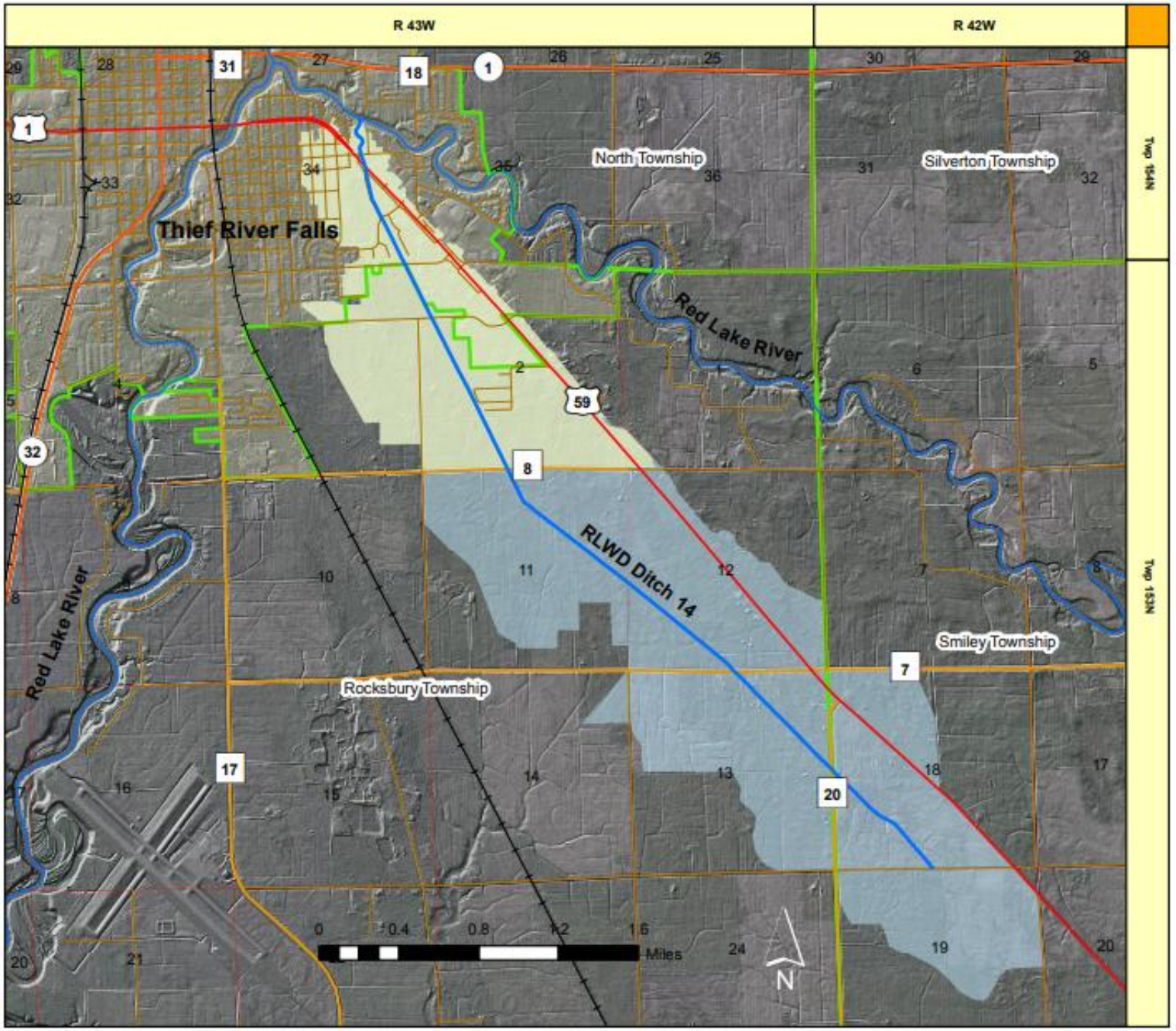
RLWD Ditch 14

Pennington County
Red Lake River
Subwatershed

Scale 1:45000

- Project 171
- Red Lake River
- Township Boundary
- WMD Benefitted Area
- Ditch 14 Bennefitted Area





Outlook

Fw: SAP 057-611-002_Cost Estimate.xlsm

From Tammy Audette <tammy.audette@redlakewatershed.org>
Date Thu 4/16/2026 1:19 PM
To Delray Sparby <dsparby@mncable.net>

1 attachment (59 KB)
SAP 057-611-002_Cost Estimate.xlsm;

See email below from Mike Flaagan. I'd like to discuss with you and Tony Olson regarding this work as it relates to the Improvement of Penn County Ditch 14 and/or TRF FDR project that comes in on the south side of town - County Road 62 area.

Tammy Audette
Administrator
Tammy.Audette@redlakewatershed.org
Red Lake Watershed District
1000 Pennington Avenue South
Thief River Falls, MN 56701
218.681.5800

From: Mike Flaagan <mlflaagan@penningtonmn.gov>
Sent: Wednesday, April 1, 2026 10:58 AM
To: Tammy Audette <tammy.audette@redlakewatershed.org>
Subject: SAP 057-611-002_Cost Estimate.xlsm

Tammy,
Here's the cost estimate for the CSAH 11 project. State Aid requires that storm sewer items be separated in the estimate, so those costs show up in Column M and total $670,697.48.

I would ask the RLWD to share $200,000 in the drainage costs. Just a note, the project includes a storm water pond that will treat a portion of the runoff. The outlet to the pond goes to the city's storm sewer system.
Thanks,
Mike

SAP 57-611-002 100% ESTIMATE OF PROBABLE COST

STATEMENT OF ESTIMATED QUANTITIES									COST ESTIMATE						
						County	City	Township			County	City	Township		
ITEM NO.	ITEM DESCRIPTION	NOTE NO.	UNIT	TOTAL ESTIMATED QUANTITY	SAP 057-611-002 EST. QUANTITY	SAP 057-611-002 STORM SEWER QUANTITY	CP 57-26-04 EST. QUANTITY	SAP 057-592-001 EST. QUANTITY	UNIT COST	SAP 057-611-002 EST. COST	SAP 057-611-002 STORM SEWER EST. COST	CP 57-26-04 EST. COST	SAP 057-592-001 EST. COST	TOTAL COST
2021.501	MOBILIZATION		LUMP SUM	1	0.54	0.17	0.07	0.22	$230,000.00	$124,200.00	$39,100.00	$16,100.00	$50,600.00	$230,000.00
2101.502	CLEARING		EACH	68	20		28	20	$315.00	$6,300.00		$8,820.00	$6,300.00	$21,420.00
2101.502	GRUBBING		EACH	68	20		28	20	$225.00	$4,500.00		$6,300.00	$4,500.00	$15,300.00
2104.502	REMOVE SIGN		EACH	14	10		2	2	$56.00	$560.00		$112.00	$112.00	$784.00
2104.502	SALVAGE VEHICULAR GATE		EACH	1			1		$2,275.00			$2,275.00		$2,275.00
2104.503	REMOVE PIPE CULVERTS		LIN FT	2174	1551		143	480	$18.25	$28,305.75		$2,609.75	$8,760.00	$39,675.50
2104.503	REMOVE CURB & GUTTER		LIN FT	153	153				$7.50	$1,147.50				$1,147.50
2104.504	REMOVE BITUMINOUS DRIVEWAY PAVEMENT		SQ YD	1910	1798		112		$7.25	$13,035.50		$812.00		$13,847.50
2104.507	REMOVE AGGREGATE		CU YD	2672	137		372	2163	$25.00	$3,425.00		$9,300.00	$54,075.00	$66,800.00
2104.518	REMOVE SIDEWALK		SQ FT	99	99				$2.25	$222.75				$222.75
2104.602	SALVAGE SIGN SPECIAL		EACH	2	1			1	$70.00	$70.00			$70.00	$140.00
2104.602	SALVAGE SIGN PANEL SPECIAL		EACH	6	6				$50.00	$300.00				$300.00
2106.507	EXCAVATION - COMMON (P)		CU YD	44908	32772		989	11147	$8.50	$278,562.00		$8,406.50	$94,749.50	$381,718.00
2106.507	EXCAVATION - CHANNEL AND POND (P)		CU YD	2347	2347				$7.50	$17,602.50				$17,602.50
2106.507	COMMON EMBANKMENT (CV) (P)		CU YD	8936	3224		1531	4181	$6.00	$19,344.00		$9,186.00	$25,086.00	$53,616.00
2106.601	DEWATERING		LUMP SUM	1	1				$25,000.00	$25,000.00				$25,000.00
2112.519	SUBGRADE PREPARATION		RDST	96.5	50.5		6.8	39.2	$120.00	$6,060.00		$816.00	$4,704.00	$11,580.00
2118.509	AGGREGATE SURFACING CLASS 1		TON	1045	63		56	926	$22.00	$1,386.00		$1,232.00	$20,372.00	$22,990.00
2211.507	AGGREGATE BASE (CV) CLASS 5 (P)		CU YD	15278	8428		859	5991	$34.00	$286,552.00		$29,206.00	$203,694.00	$519,452.00
2215.504	FULL DEPTH RECLAMATION (P)		SQ YD	13082	13082				$1.80	$23,547.60				$23,547.60
2360.509	TYPE SP 9.5 WEARING COURSE MIX (2,C)		TON	7863	4816		486	2561	$60.00	$288,960.00		$29,160.00	$153,660.00	$471,780.00
2501.502	15" CAS PIPE APRON		EACH	3			3		$400.00			$1,200.00		$1,200.00
2501.502	18" CAS PIPE APRON		EACH	29			2	27	$500.00			$1,000.00	$13,500.00	$14,500.00
2501.502	24" CAS PIPE APRON		EACH	2	2				$600.00	$1,200.00				$1,200.00
2501.502	15" RC PIPE APRON		EACH	1		1			$1,100.00		$1,100.00			$1,100.00
2501.502	18" RC PIPE APRON		EACH	1		1			$1,500.00		$1,500.00			$1,500.00
2501.502	24" RC PIPE APRON		EACH	5		1		4	$1,800.00		$1,800.00		$7,200.00	$9,000.00
2501.502	36" RC PIPE APRON		EACH	1		1			$2,200.00		$2,200.00			$2,200.00
2501.502	15" CS SAFETY APRON		EACH	1			1		$675.00			$675.00		$675.00
2501.502	18" CS SAFETY APRON		EACH	3				3	$800.00				$2,400.00	$2,400.00
2501.503	15" CAS PIPE CULVERT		LIN FT	130			130		$75.00			$9,750.00		$9,750.00
2501.503	18" CAS PIPE CULVERT		LIN FT	1019			64	955	$80.00			$5,120.00	$76,400.00	$81,520.00
2501.503	24" CAS PIPE CULVERT		LIN FT	81	81				$85.00	$6,885.00				$6,885.00
2501.503	24" RC PIPE CULVERT DES 3006		LIN FT	144				144	$105.00				$15,120.00	$15,120.00
2501.602	PLUG FILL & ABANDON PIPE CULVERT		EACH	1	1				$5,100.00	$5,100.00				$5,100.00
2502.503	4" PERF PE PIPE DRAIN		LIN FT	8667	8667				$10.00	$86,670.00				$86,670.00
2503.503	12" RC PIPE SEWER DES 3006		LIN FT	547		144	403		$72.00		$10,368.00	$29,016.00		$39,384.00
2503.503	15" RC PIPE SEWER DES 3006		LIN FT	901		901			$75.00		$67,575.00			$67,575.00
2503.503	18" RC PIPE SEWER DES 3006		LIN FT	1238		1238			$85.00		$105,230.00			$105,230.00
2503.503	24" RC PIPE SEWER DES 3006		LIN FT	2719		2719			$96.75		$263,063.25			$263,063.25
2503.503	36" RC PIPE SEWER DES 3006		LIN FT	31		31			$188.50		$5,843.50			$5,843.50
2506.502	CONST DRAINAGE STRUCTURE DESIGN SPECIAL		EACH	1		1			$17,500.00		$17,500.00			$17,500.00
2506.502	CASTING ASSEMBLY		EACH	39		37	2		$1,100.00		$40,700.00	$2,200.00		$42,900.00
2506.503	CONST DRAINAGE STRUCTURE DESIGN N		LIN FT	21.1		18.9	2.2		$524.75		$9,917.78	$1,154.45		$11,072.23
2506.503	CONST DRAINAGE STRUCTURE DESIGN SD-48		LIN FT	75.5		72.2	3.3		$684.00		$49,384.80	$2,257.20		$51,642.00
2506.503	CONST DRAINAGE STRUCTURE DESIGN SD-60		LIN FT	12.0		12			$863.25		$10,359.00			$10,359.00
2506.503	CONST DRAINAGE STRUCTURE DESIGN SD-72		LIN FT	4.6		4.6			$1,174.25		$5,401.55			$5,401.55
2506.503	CONST DRAINAGE STRUCTURE DES 48-4020		LIN FT	25.6		25.6			$620.00		$15,872.00			$15,872.00
2506.503	CONST DRAINAGE STRUCTURE DES 60-4020		LIN FT	16.3		16.3			$802.00		$13,072.60			$13,072.60
2511.507	RANDOM RIPRAP CLASS II		CU YD	20	20				$115.00	$2,300.00				$2,300.00
2521.602	DRILL & GROUT REINF BAR (EPOXY COATED)		EACH	12	12				$13.50	$162.00				$162.00
2521.618	CONCRETE CURB RAMP WALK		SQ FT	129	129				$15.25	$1,967.25				$1,967.25
2531.503	CONCRETE CURB & GUTTER DESIGN B624		LIN FT	11308	10127		1181		$29.00	$293,683.00		$34,249.00		$327,932.00
2531.504	6" CONCRETE DRIVEWAY PAVEMENT		SQ YD	418	383		35		$88.00	$33,704.00		$3,080.00		$36,784.00

SAP 57-611-002 100% ESTIMATE OF PROBABLE COST

STATEMENT OF ESTIMATED QUANTITIES									COST ESTIMATE					
ITEM NO.	ITEM DESCRIPTION	NOTE NO.	UNIT	TOTAL ESTIMATED QUANTITY	SAP 057-611-002 EST. QUANTITY	SAP 057-611-002 STORM SEWER QUANTITY	CP 57-26-04 EST. QUANTITY	SAP 057-592-001 EST. QUANTITY	UNIT COST	SAP 057-611-002 EST. COST	SAP 057-611-002 STORM SEWER EST. COST	CP 57-26-04 EST. COST	SAP 057-592-001 EST. COST	TOTAL COST
2531.504	8" CONCRETE DRIVEWAY PAVEMENT		SQ YD	75	62		13		$111.25	$6,897.50		$1,446.25		$8,343.75
2531.603	CONCRETE CURB & GUTTER		LIN FT	15	15				$41.25	$618.75				$618.75
2531.604	8" CONCRETE VALLEY GUTTER		SQ YD	54	54				$130.75	$7,060.50				$7,060.50
2531.618	TRUNCATED DOMES		SQ FT	19	19				$68.00	$1,292.00				$1,292.00
2540.602	MAIL BOX SUPPORT		EACH	42	31		4	7	$460.00	$14,260.00		$1,840.00	$3,220.00	$19,320.00
2545.502	LIGHTING UNIT TYPE SPECIAL		EACH	23	23				$6,000.00	$138,000.00				$138,000.00
2545.502	LIGHT FOUNDATION DESIGN E		EACH	23	23				$1,375.00	$31,625.00				$31,625.00
2545.502	SERVICE CABINET -TYPE L1		EACH	1	1				$13,500.00	$13,500.00				$13,500.00
2545.502	EQUIPMENT PAD B		EACH	1	1				$1,715.00	$1,715.00				$1,715.00
2545.503	3" NON-METALLIC CONDUIT		LIN FT	600	600				$12.00	$7,200.00				$7,200.00
2545.503	UNDERGROUND WIRE 4/C 4 AWG		LIN FT	600	600				$7.00	$4,200.00				$4,200.00
2545.503	DIRECT BURIED LIGHTING CABLE 4/C 4 AWG		LIN FT	5460	5460				$14.25	$77,805.00				$77,805.00
2554.502	GUIDE POST TYPE B		EACH	8	4			4	$130.00	$520.00			$520.00	$1,040.00
2557.602	INSTALL VEHICULAR GATE		EACH	1			1		$3,100.00			$3,100.00		$3,100.00
2563.601	TRAFFIC CONTROL		LUMP SUM	1	0.54	0.17	0.07	0.22	$48,000.00	$25,920.00	$8,160.00	$3,360.00	$10,560.00	$48,000.00
2563.602	VEHICLE SPEED FEEDBACK SIGN		EACH	2	2				$3,500.00	$7,000.00				$7,000.00
2564.602	INSTALL SIGN SPECIAL		EACH	2	1			1	$400.00	$400.00			$400.00	$800.00
2564.602	INSTALL SIGN PANEL SPECIAL		EACH	6	6				$350.00	$2,100.00				$2,100.00
2564.618	SIGN		SQ FT	117	78		26	13	$80.75	$6,298.50		$2,099.50	$1,049.75	$9,447.75
2573.501	STABILIZED CONSTRUCTION EXIT		LUMP SUM	1	0.54	0.17	0.07	0.22	$15,000.00	$8,100.00	$2,550.00	$1,050.00	$3,300.00	$15,000.00
2573.502	CULVERT END CONTROLS		EACH	1	1				$200.00	$200.00				$200.00
2573.502	STORM DRAIN INLET PROTECTION		EACH	38	36		2		$200.00	$7,200.00		$400.00		$7,600.00
2573.503	FILTER BERM TYPE 4		LIN FT	19906	10637		1427	7842	$2.00	$21,274.00		$2,854.00	$15,684.00	$39,812.00
2574.505	SUBSOILING (P)		ACRE	0.3	0.2		0.1		$300.00	$60.00		$30.00		$90.00
2574.505	SOIL BED PREPARATION (P)		ACRE	10	4		1	5	$225.00	$900.00		$225.00	$1,125.00	$2,250.00
2574.507	COMMON TOPSOIL BORROW		CU YD	2551	2051		500		$36.50	$74,861.50		$18,250.00		$93,111.50
2574.508	FERTILIZER TYPE 3		POUND	3570	1404		328	1838	$1.50	$2,106.00		$492.00	$2,757.00	$5,355.00
2574.508	FERTILIZER TYPE 4		POUND	26	26				$1.50	$39.00				$39.00
2575.504	SODDING TYPE SALT TOLERANT		SQ YD	12	12				$25.00	$300.00				$300.00
2575.505	SEEDING (P)		ACRE	10	4		1	5	$250.00	$1,000.00		$250.00	$1,250.00	$2,500.00
2575.508	HYDRAULIC BONDED FIBER MATRIX		POUND	36442	14787		3279	18376	$1.35	$19,962.45		$4,426.65	$24,807.60	$49,196.70
2575.523	WATER		M GALLON	5	5				$1,000.00	$5,000.00				$5,000.00
2575.608	SEED NORTHERN BOULEVARD		POUND	679	538		141		$9.25	$4,976.50		$1,304.25		$6,280.75
2575.608	SEED MESIC INSLOPE		POUND	369	28			341	$9.75	$273.00			$3,324.75	$3,597.75
2575.608	SEED NORTHWEST TALLGRASS ROADSIDE		POUND	99	99				$45.00	$4,455.00				$4,455.00
2580.501	INTERIM PAVEMENT MARKING		LUMP SUM	1	0.7		0.07	0.23	$20,000.00	$14,000.00		$1,400.00	$4,600.00	$20,000.00
2582.503	6" SOLID LINE MULTI COMP GR IN (WR)		LIN FT	19161	10098		1203	7860	$1.25	$12,622.50		$1,503.75	$9,825.00	$23,951.25
2582.503	4" BROKEN LINE MULTI COMP GR IN (WR)		LIN FT	2254	1264			990	$1.50	$1,896.00			$1,485.00	$3,381.00
2582.503	4" DBLE SOLID LINE MULTI COMP GR IN (WR)		LIN FT	603			603		$2.50			$1,507.50		$1,507.50
										$2,086,390.05	**$670,697.48**	**$259,575.80**	**$825,210.60**	
100% Plan Estimated Cost														**$3,841,874**

Red Lake Watershed District

Permit # 25-029

Status Report: Approved

Expiration:04/22/2027

Applicant Information

Name	Organization	Address	Email	Phone Number(s)
G & K Acres		2903 13th Ave South Moorhead,MN 56560	skisunshine@aol.com	tel: 701-361-9738

General Information

(1) The proposed project is a: **Culvert Installation / Removal / Modification,**

(2) Legal Description

(3) County: **Pennington** Township: **Deer Park** Range: **40** Section: **13**

(4) Describe in detail the work to be performed: install culvert for field access to property.

(5) Why is this work necessary? Explain water related issue/problem being solved. **Improve access to perform field work.**

Status

Status	Notes	Date
Approved	The Red Lake Watershed District (RLWD) approves installing a 60" culvert for a new crossing into property. If any work is within a public road and/or public ditch Right-of-Way, applicant shall contact the appropriate road/ditch authority for their approval and must meet their specs/conditions. Directly downstream of the tile and/or pump station(s) outlets, applicant shall ensure that adequate grade and drainage is provided. This application does not exempt the permit applicant from local, state, or federal authority that might require their approval. If any of the work is done near adjacent wetlands or public watercourse, applicant shall contact the appropriate jurisdictional authority prior to the installation of the culvert/tile lines and meet their spec's/conditions. Directly downstream of the outlet, applicant shall ensure that adequate grade and drainage is provided. Applicant is responsible for utility locates by calling Gopher 1. (1-800-252-1166) Extension	04/22/2026
Received		04/22/2025

Conditions

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.

- Work in road right-of-way is subject to approval of road authority (Township, County, or State).
- For work within Legal drainage system right-of-way or RLWD Project Easement Areas, applicant agrees to move their utilities at their own expense if it is determined that the utility needs to be moved in the future by the RLWD.
- Unless otherwise noted, all approved permit applications expire one year from the date of board approval. A permit renewal can be applied for prior to the expiration date by contacting the district office.
- This Permit does not relieve you of any requirements for other permits, which may be necessary from Township, County, State, or Federal Government Agencies.
- Please be aware of the requirements of the Rules of the District, found on our web-site at http://www.redlakewatershed.org/PDF_Files/RED%20LAKE%20WATERSHED%20DISTRICT%20RULES_Adopted%208-27-15.pdf

Red Lake Watershed District

Permit # 26-004

Status Report: Approved

Expiration:04/21/2027

Applicant Information

Name	Organization	Address	Email	Phone Number(s)
Alex Bladow	Pennington County (Rocksbury Twp)	250 125th Ave NE Thief River Falls,MN 56701	ajbladow@penningtonmn.gov	tel: 218-683-7017

General Information

(1) The proposed project is a: **Culvert Installation / Removal / Modification,Surface Drainage (New Ditch or Improvement),**

(2) Legal Description

(3) County: **Pennington** Township: **Rocksbury** Range: **43** Section: **2**

(4) Describe in detail the work to be performed: Reconstruction Project SAP 057-611-002

(5) Why is this work necessary? Explain water related issue/problem being solved. **Storm sewer, culvert plug, ditch grading**

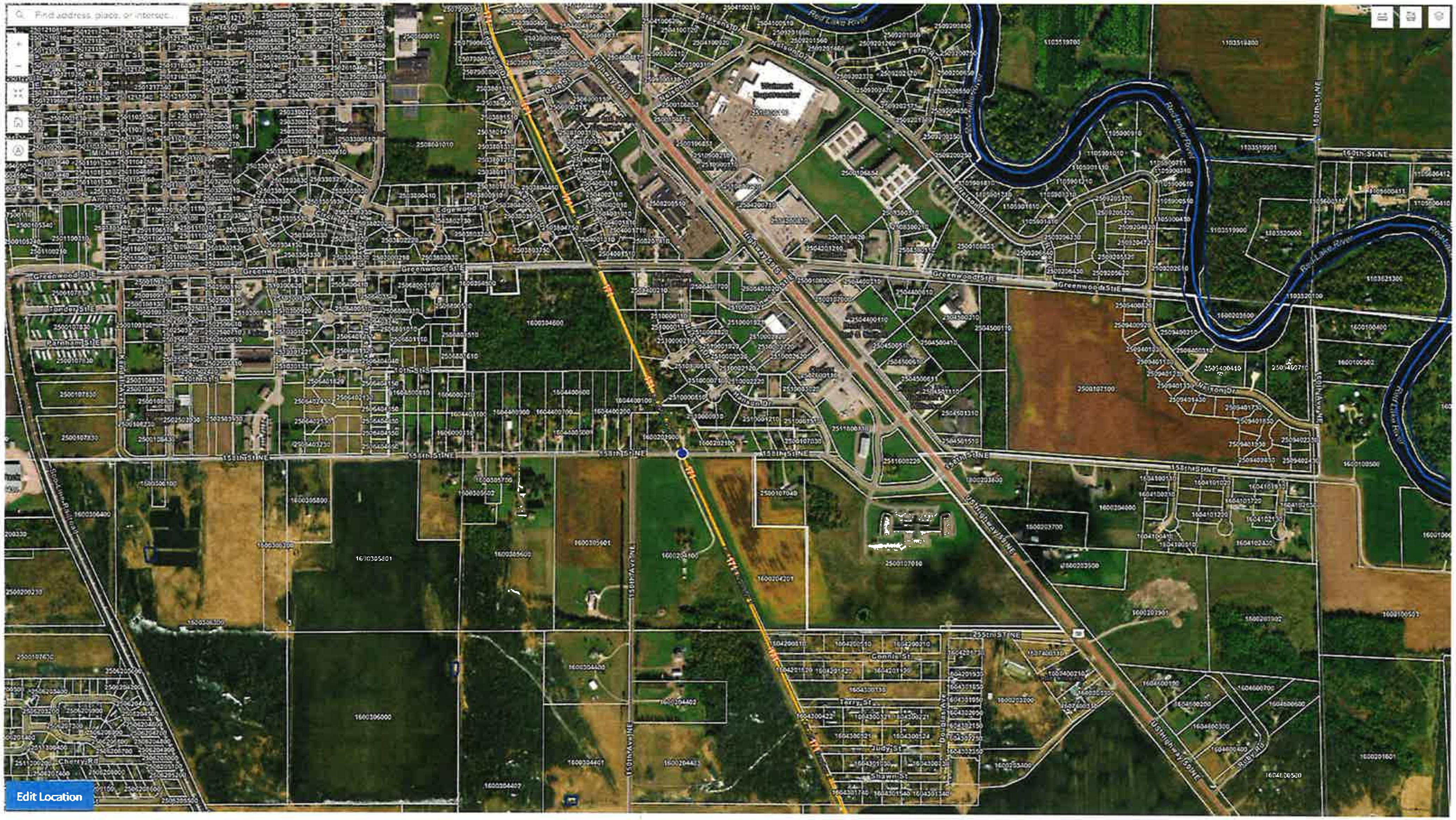
Status

Status	Notes	Date
Approved	The Red Lake Watershed District (RLWD) approves the construction project along CSAH 11 and 150th Ave contingent upon approval from Rocksbury Township since they are have jurisdiction along this project. (See Attached Plans). County Engineer states that the sizing of culverts/bridges is necessary to meet both state aid standards and MNDOT design standards to address headwater and overtopping of the roadway. Approval is based on a case study that Road Design/Road Safety is allowed to increase culvert/bridge sizes with the Road Authority being held responsible for all issues that would stem from increasing a culvert/bridge size. Red Lake Watershed District recommends having a public hearing to address any landowner concerns. If any work is within a public road and/or public ditch Right-of-Way, applicant shall contact the appropriate road/ditch authority for their approval and must meet their specs/conditions. Permit Holder shall contact the road authorities when cutting through roads when applicable. Directly downstream of the project outlet, applicant shall ensure that adequate grade and drainage is provided. Applicant is responsible for utility locates by calling Gopher 1. (1-800-252-1166)	04/21/2026
Received		03/18/2026

Conditions

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.

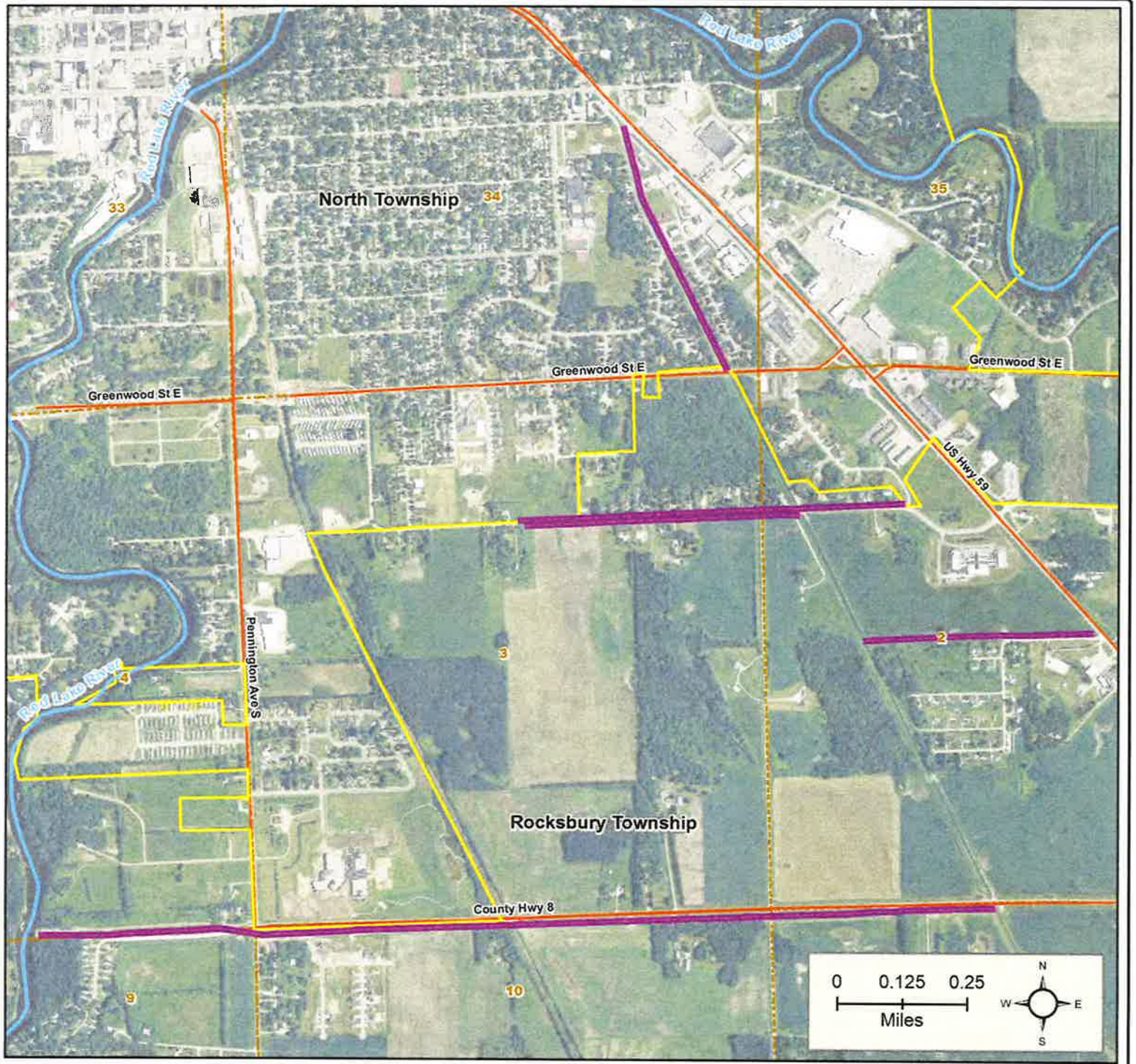
- Work in road right-of-way is subject to approval of road authority (Township, County, or State).
- For work within Legal drainage system right-of-way or RLWD Project Easement Areas, applicant agrees to move their utilities at their own expense if it is determined that the utility needs to be moved in the future by the RLWD.
- Unless otherwise noted, all approved permit applications expire one year from the date of board approval. A permit renewal can be applied for prior to the expiration date by contacting the district office.
- This Permit does not relieve you of any requirements for other permits, which may be necessary from Township, County, State, or Federal Government Agencies.
- Please be aware of the requirements of the Rules of the District, found on our web-site at http://www.redlakewatershed.org/PDF_Files/RED%20LAKE%20WATERSHED%20DISTRICT%20RULES_Adopted%208-27-15.pdf



Find address, place, or intersec...
Red Lake River
Greenwood St E
158th St NE
150th Ave NE
160th St NE
255th St NE
Edit Location

Red Lake Watershed District

Project 171A
Thief River Falls Flood Damage Reduction



- Proj 171A
- Rivers/Streams
- TRF City Boundary
- Roads
- Sections

Red Lake Watershed District

Permit # 26-011

Status Report: Approved

Expiration:04/22/2027

Applicant Information

Name	Organization	Address	Email	Phone Number(s)
Alex Bladow	Pennington County Hwy Dept	250 125th Ave NE Thief River Falls,MN 56701	ajbladow@penningtonmn.gov	tel: 218-683-7017

General Information

(1) The proposed project is a: **Culvert Installation / Removal / Modification,**

(2) Legal Description

(3) County: **Pennington** Township: **North** Range: **43** Section: **32**

(4) Describe in detail the work to be performed: Removal of End Sections, filling and covering culvert

(5) Why is this work necessary? Explain water related issue/problem being solved. **Pipe is not benefitting any drainage and helps sloping of North crossing**

Status

Status	Notes	Date
Approved	The Red Lake Watershed District (RLWD) approves to plug/remove the culvert. There is a centerline pipe installed under 6th St W that is no longer used for drainage since MNDOT added a culvert near this location. (see attached map). If any work is within a public road and/or public ditch Right-of-Way, applicant shall contact the appropriate road/ditch authority for their approval and must meet their specs/conditions. Applicant shall install appropriate erosion control measures for energy dissipation at the tile outlet(s) to prevent erosion. Applicant shall install appropriate markers to show the outlet end of the pipe, any damage caused by maintenance will be at the expense of the landowner/applicant Note: Please be aware of and review the 'bullet points' on the bottom half of the application. This application does not exempt the permit applicant from local, state, or federal authority that might require their approval. If any of the work is done near adjacent wetlands or public watercourse, applicant shall contact the appropriate jurisdictional authority prior to the installation of the tile lines and meet their spec's/conditions. Directly downstream of the outlet, applicant shall ensure that adequate grade and drainage is provided. Applicant is responsible for utility locates by calling Gopher 1. (1-800-252-1166)	04/22/2026
Received		04/06/2026

Red Lake Watershed District

Permit # 26-013

Status Report: Approved

Expiration:04/10/2027

Applicant Information

Name	Organization	Address	Email	Phone Number(s)
Gabriel Arveson		10723 410th ave SE Trail,MN 56684	gabrielarveson@gmail.com	tel: 218-684-1551

General Information

(1) The proposed project is a: **Culvert Installation / Removal / Modification,**

(2) Legal Description

(3) County: **Polk** Township: **Grove Park-Tilden** Range: **43** Section: **30**

(4) Describe in detail the work to be performed: I would like to have a culvert and crossing put in. The ditch does not flow well and is very dirty as well.I do not have a crossing at all and with semi trucks its a big safety issue.

(5) Why is this work necessary? Explain water related issue/problem being solved. **Its a really big safety issues I do not want anyone to flip a truck. The waterway flows very poorly and is very dirty so it restricts the water and does not drain properly. Resulting is top soil ending up in the ditch due to the ditch not flowing correctly. With the crossing and culvert added it would help a lot.**

Status

Status	Notes	Date
Approved	The Red Lake Watershed District (RLWD) approves to add a 18" culvert for a new crossing into property. Install new culvert at the current inverts. If any work is within a public road and/or public ditch Right-of-Way, applicant shall contact the appropriate road/ditch authority for their approval and must meet their specs/conditions. Applicant shall install appropriate erosion control measures for energy dissipation at the outlet to prevent erosion. Applicant shall install black dirt if needed and re-seed any disturbed land with approved seed mixtures. *Note: Please be aware of and review the 'bullet points' on the bottom half of the application. This application does not exempt the permit applicant from local, state, or federal authority that might require their approval. Applicant is responsible for utility locates by calling Gopher 1. (1-800-252-1166)	04/10/2026
Received		04/09/2026

Conditions

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.

- Work in road right-of-way is subject to approval of road authority (Township, County, or State).
- For work within Legal drainage system right-of-way or RLWD Project Easement Areas, applicant agrees to move their utilities at their own expense if it is determined that the utility needs to be moved in the future by the RLWD.
- Unless otherwise noted, all approved permit applications expire one year from the date of board approval. A permit renewal can be applied for prior to the expiration date by contacting the district office.
- This Permit does not relieve you of any requirements for other permits, which may be necessary from Township, County, State, or Federal Government Agencies.
- Please be aware of the requirements of the Rules of the District, found on our web-site at http://www.redlakewatershed.org/PDF_Files/RED%20LAKE%20WATERSHED%20DISTRICT%20RULES_Adopted%208-27-15.pdf

Red Lake Watershed District

Permit # 26-014

Status Report: Approved

Expiration:04/10/2027

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General Information

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(2) Legal Description

(3) County: **Polk** Township: **Grove Park-Tilden** Range: **43** Section: **7**

(4) Describe in detail the work to be performed: I have no field crossing to this location and would like a culvert and crossing added for safety purposes with semi trucks. The culvert would be installed by a contractor and be put on the correct grade for the best water flowing.

(5) Why is this work necessary? Explain water related issue/problem being solved. **Where the culvert would be added would speed up the drainage on the field and help with erosion.**

Status

Status	Notes	Date
Approved	The Red Lake Watershed District (RLWD) approves to add a 72" culvert for a new crossing into property, contingent upon approval from Polk County as this culvert will be installed within the Right of Way of JD 64. Install new culvert at the current inverts. If any work is within a public road and/or public ditch Right-of-Way, applicant shall contact the appropriate road/ditch authority for their approval and must meet their specs/conditions. Applicant shall install appropriate erosion control measures for energy dissipation at the outlet to prevent erosion. Applicant shall install black dirt if needed and re-seed any disturbed land with approved seed mixtures. *Note: Please be aware of and review the 'bullet points' on the bottom half of the application. This application does not exempt the permit applicant from local, state, or federal authority that might require their approval. Applicant is responsible for utility locates by calling Gopher 1. (1-800-252-1166)	04/10/2026
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April 10, 2026

Senator Sandra L. Pappas
Chair, Capital Investment Committee
Minnesota Senate
95 University Avenue W.
Minnesota Senate Bldg., Room 2113
St. Paul, MN 55155

Dear Senator Pappas,

We write to thank the Governor and Minnesota DNR for including $9 million for the Flood Hazard Mitigation Program in SF5005. The Red River Watershed Management Board (RRWMB) supported the DNR's preliminary agency request of $45 million for the Program because there is great need for this infrastructure funding. Currently, there is over $200 million in known statewide need according to DNR and we urge the Committee and Legislature to invest more than $9 million to address this massive financial need.

In the Red River Basin alone, we have three flood mitigation – water storage projects of 82,500 acre-feet underway with millions of dollars of investment already in them through local and various State of Minnesota funding sources. These projects are not yet completed and do not function because we cannot finish them alone with just local funds. These are all multipurpose projects that will incorporate flood mitigation – water storage, water quality, fish and wildlife habitat, and other natural resources features.

Because these projects are multipurpose, the State of Minnesota also benefits from the functions provided once completed. We realize the difficult position that the Minnesota Legislature is in to provide for various capital investment needs across the state. Attached is information about the Flood Hazard Mitigation Program developed separately by the RRWMB and DNR. Thank you.

Sincerely,

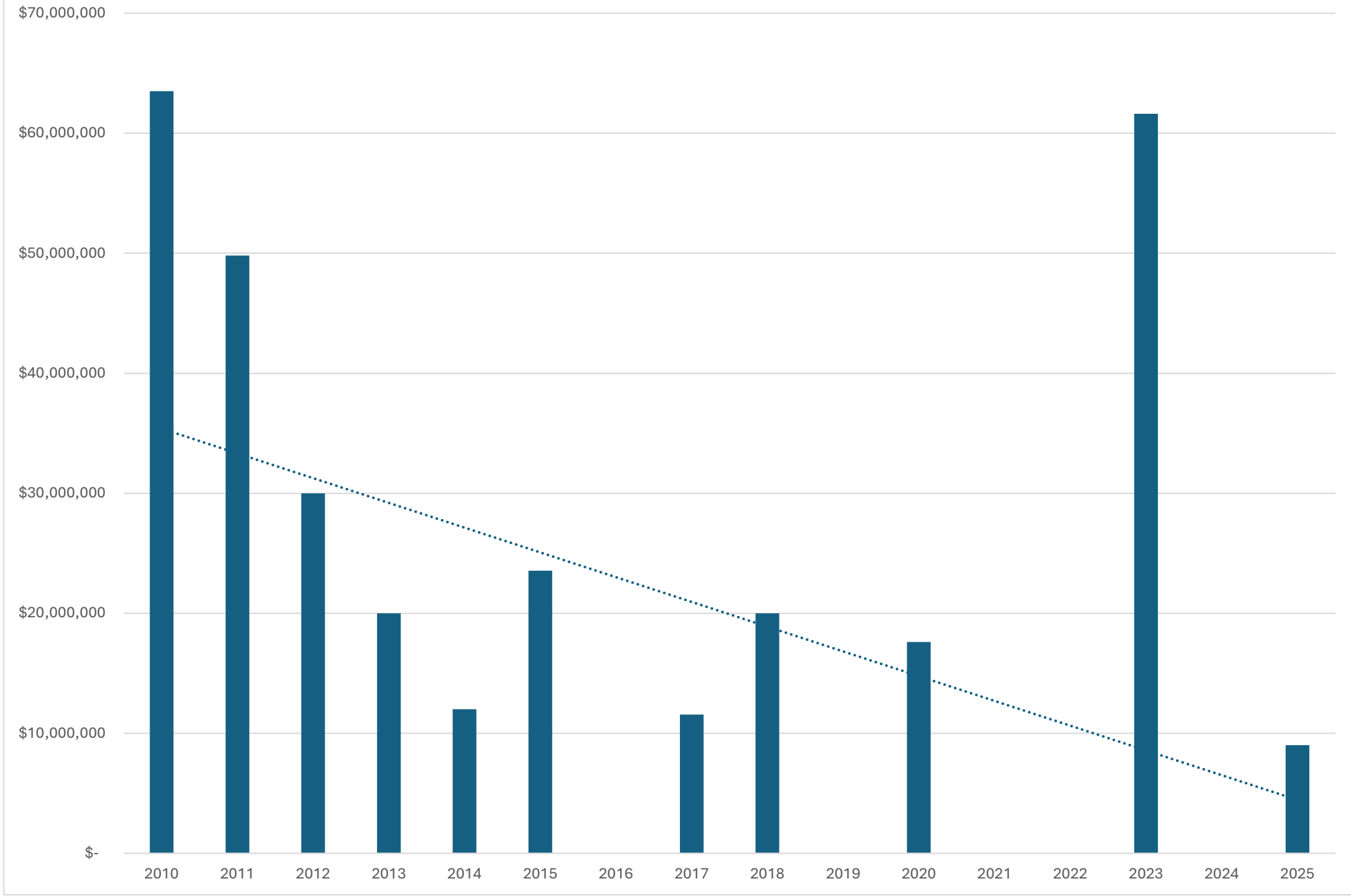
John Finney
President, RRWMB

Sincerely

Robert L. Sip
Executive Director, RRWMB

CC: RRWMB Managers and RRWMB Membership

Flood Hazard Mitigation Grant Assistance Program Allocations 2010 - 2025
Developed by the Red River Watershed Management Board February 2026



DEPARTMENT OF NATURAL RESOURCES

Current Known Flood Hazard Mitigation (FHM) Funding Needs

This list of unmet FHM funding needs identifies known projects based on information provided in grant applications and/or correspondence with local units of government. The list is updated periodically as new project applications are submitted, amended, funded, or removed from consideration.

Project	Remaining Project Costs
Blue Earth County – Acquisition of ~6 Flood Prone/Damaged Structures	TBD
Bois de Sioux Watershed District (WD) – Redpath Impoundment (phases 3 & 4)	$26,487,000
Buffalo Red River WD – Barnesville Twp Stream Restoration, Ag Levees, Storage†	$15,600,000
Buffalo Red River WD – Upper South Branch Flood Control†	$15,000,000
Carver Levee Reconstruction (final phase)	$3,350,000
Fargo-Moorhead (F-M) Diversion Related, Clay County - Clara Cemetery Dike	$2,000,000
F-M Diversion Related, Clay County - Comstock CR 2 Reconstruction & Ditching	$5,400,000
F-M Diversion Related, Clay County - Comstock Lagoon	$5,000,000
F-M Diversion Related, Clay County - Road Raises	$5,600,000
F-M Diversion Related, Clay County - SE-4 Access Road	$1,100,000
F-M Diversion Related, Buffalo Red River WD - Georgetown Levee	$6,780,000
F-M Diversion Related, Buffalo Red River WD - Wolverton Levee	$17,450,000
Golden Valley – Isaacson Park Industrial Area Storage & Pond Diversion†	$8,000,000
Golden Valley – Toledo Avenue/Minnaqua Pond Flood Reduction	$4,100,000
Hawley – levee & channel restoration†	$2,000,000
Middle Snake Tamarac Rivers WD – Swift Coulee†	$6,500,000
Moorhead – Lift station improvements	$16,000,000
Mounds View – SC-2 Drainage Subdistrict Improvements	$370,293
Nielsville – Levee†	$3,800,000
North Mankato – Levee Improvements	$3,260,000
Northfield – Floodwall	$5,264,000
Northfield – Carleton College Flood Protection	$3,907,000
Rice Creek WD – Jones Lake Outlet Modification and Dredging	$7,509,000
Roseau River WD – Roseau Lake Bottom Rehabilitation (phase 6 of 6)	$4,750,000
Roseau River WD – Whitney Lake Impoundments†	$9,000,000
Sandhill River WD – Union & Sarah Lake Outlet	$1,500,000
Two Rivers WD – Klondike Impoundment (phases 1 through 3)	$33,378,999
Watertown – WWTP & Public Works Access Improvements	$270,000
Subtotal	**$213,376,292**

† Outdated cost estimates, or incomplete application details