



# Grant All-Detail Report

## Watershed Based Implementation Phase II 2020

**Grant Title** - 2020 - Thief River Watershed Based Funding

**Grant ID** - C20-1002

**Organization** - Red Lake WD

<b>Original Awarded Amount</b>	<b>\$529,892.00</b>	<b>Grant Execution Date</b>	<b>6/22/2020</b>
<b>Required Match Amount</b>	\$52,989.20	<b>Original Grant End Date</b>	12/31/2022
<b>Required Match %</b>	10%	<b>Grant Day To Day Contact</b>	Myron Jesme
<b>Current Awarded Amount</b>	\$529,892.00	<b>Current End Date</b>	12/31/2022

### Budget Summary

	Budgeted	Spent	Balance Remaining*
Total Grant Amount	\$529,892.00	\$229,068.21	\$300,823.79
Total Match Amount	\$53,000.00	\$0.00	\$53,000.00
Total Other Funds	\$0.00	\$0.00	\$0.00
<b>Total</b>	<b>\$582,892.00</b>	<b>\$229,068.21</b>	<b>\$353,823.79</b>

*\*Grant balance remaining is the difference between the Awarded Amount and the Spent Amount. Other values compare budgeted and spent amounts.*

### Budget Details

Activity Name	Activity Category	Source Type	Source Description	Budgeted	Spent	Last Transaction Date	Matching Fund
2020 Thief River 1W1P Administration	Administration /Coordination	Current State Grant	2020 - Thief River Watershed Based Funding	\$26,494.00	\$12,492.13	12/31/2021	N
2020 Thief River 1W1P Conduct an Education and Outreach Workshop	Education/Information	Current State Grant	2020 - Thief River Watershed Based Funding	\$5,000.00			N

Activity Name	Activity Category	Source Type	Source Description	Budgeted	Spent	Last Transaction Date	Matching Fund
2020 Thief River 1W1P Implement 640 acres of cover crop	Non-Structural Management Practices	Federal Funds		\$53,000.00			Y
2020 Thief River 1W1P Priority Agricultural Practices	Agricultural Practices	Current State Grant	2020 - Thief River Watershed Based Funding	\$87,000.00			N
2020 Thief River 1W1P Project Development	Project Development	Current State Grant	2020 - Thief River Watershed Based Funding	\$26,495.00	\$53,930.44	12/31/2021	N
2020 Thief River 1W1P Stabilize JD23 Outlet in Marshall County	Streambank or Shoreline Protection	Current State Grant	2020 - Thief River Watershed Based Funding	\$278,925.00	\$98,128.54	12/31/2021	N
2020 Thief River 1W1P Technical and Engineering	Technical/Engineering Assistance	Current State Grant	2020 - Thief River Watershed Based Funding	\$105,978.00	\$64,517.10	12/31/2021	N

### Activity Details Summary

Activity Details	Total Action Count	Total Activity Mapped	Proposed Size / Unit	Actual Size / Unit
410 - Grade Stabilization Structure	2	2	6 COUNT	2 COUNT
580 - Streambank and Shoreline Protection	1	1	333 LINEAR FEET	314 LINEAR FEET
580 - Streambank and Shoreline Protection	1	1	333 LINEAR FEET	356 LINEAR FEET
580 - Streambank and Shoreline Protection	1	1	334 LINEAR FEET	275 LINEAR FEET
410 - Grade Stabilization Structure	1	1	100 LINEAR FEET	100 LINEAR FEET
410 - Grade Stabilization Structure	1	2	2000 LINEAR FEET	410 LINEAR FEET

### Proposed Activity Indicators

Activity Name	Indicator Name	Value & Units	Waterbody	Calculation Tool	Comments
<b>2020 Thief River 1W1P Implement 640 acres of cover crop</b>	SOIL (EST. SAVINGS)	198 TONS/YR	Thief River	WEPS (Wind Erosion Prediction System)	
<b>2020 Thief River 1W1P Stabilize JD23 Outlet in Marshall County</b>	SEDIMENT (TSS)	200 TONS/YR	Thief River	BWSR CALC (GULLY STABILIZATION)	
<b>2020 Thief River 1W1P Stabilize JD23 Outlet in Marshall County</b>	SEDIMENT (TSS)	99 TONS/YR	Thief River	Other	HSPF/SAM
<b>2020 Thief River 1W1P Priority Agricultural Practices</b>	SEDIMENT (TSS)	209 TONS/YR	Thief River	Other	PTMApp
<b>2020 Thief River 1W1P Priority Agricultural Practices</b>	SEDIMENT (TSS)	90 TONS/YR	Thief River	BWSR CALC (GULLY STABILIZATION)	

### Final Indicators Summary

Indicator Name	Total Value	Unit
<b>SEDIMENT (TSS)</b>	248.21	TONS/YR
<b>PHOSPHORUS (EST. REDUCTION)</b>	3.77	LBS/YR

## Grant Activity

### Grant Activity - 2020 Thief River 1W1P Administration

<b>Description</b>	<p>The Red Lake Watershed District was appointed fiscal agent for the grant and will track grant expenditures, process payments, and assist with grant reporting and other financial responsibilities.</p> <p>The Marshall SWCD was appointed Thief River 1W1P Coordinator and will organize planning workgroup meetings, policy committee meetings, develop agendas, complete required reporting, and other tasks associated for the implementation of grant activities.</p>	
<b>Category</b>	ADMINISTRATION/COORDINATION	
<b>Start Date</b>	22-Jun-20	<b>End Date</b>
<b>Has Rates and Hours?</b>	Yes	
<b>Actual Results</b>	The Thief River 1W1P Planning Work group used these funds in in 2020 and 2021 for fiscal tracking, financial reports, meeting coordination and elink reporting.	

### Grant Activity - 2020 Thief River 1W1P Conduct an Education and Outreach Workshop

<b>Description</b>	<p>Throughout the planning process, stakeholders showed interest in learning more about topics such as drainage water management, public drainage and public water statutes, water quality issues affecting the City of Thief River Falls, and opportunities for sediment reduction in the middle Thief River Planning Region to name a few. Three Tier B issues are identified in Section 2 of the plan relate to the collective understanding of water related matters and the ability resolve these issues. The Planning Workgroup will plan a workshop or similar education and outreach project for landowners or stakeholders in the watershed.</p>	
<b>Category</b>	EDUCATION/INFORMATION	
<b>Start Date</b>	22-Jun-20	<b>End Date</b>
<b>Has Rates and Hours?</b>	Yes	
<b>Actual Results</b>	Due to Covid 19, no education event happened in 2020 and no funds were spent in 2020 by the Thief River 1W1P Planning Work Group. An education event was planned for fall 2021, but due to lack of interest and an early small grain harvest, this was cancelled. Another date will be tried in 2022.	

## Grant Activity - 2020 Thief River 1W1P Implement 640 acres of cover crop

<b>Description</b>	<p>Federal Programs such as the Environmental Quality Incentive Program (EQIP) and Conservation Stewardship Program (CSP) provide cost-share to producers to implement cover crops where there is a resource concern to address erosion or soil health. The sediment reduction estimate for 640 acres of cover crop is 198 tons per year.</p> <p>The planning work group will be actively targeting practices and conducting landowner outreach as described under the project development activity. When staff finds landowners with interest in cover crops, they will direct them to federal EQIP/CSP programs to fund those projects and assist with the application process. SWCD staff with appropriate JAA will provide technical assistance as needed if NRCS staff can't handle the workload. Cover crop practices will follow standards and specifications found in the NRCS FOTG.</p>		
<b>Category</b>	NON-STRUCTURAL MANAGEMENT PRACTICES		
<b>Start Date</b>	22-Jun-20	<b>End Date</b>	
<b>Has Rates and Hours?</b>	No		
<b>Actual Results</b>	As of the end of 2021, no contracts have been signed by operators/landowners and no funds have been spent.		

**Grant Activity - 2020 Thief River 1W1P Priority Agricultural Practices**

<b>Description</b>	<p>Six side water inlets along JD 23 are planned to stabilize the outlets where concentrated flows outlet into JD23. An estimated 90 tons of sediment will be reduced towards a plan goal of 2,335 tons per year in the lower Thief River Planning Region.</p> <p>The Planning Workgroup will utilize the PTMApp to prioritize locations to implement agricultural practices in Tier A planning regions which include the Lower Thief, CD20, and the Mud River. If funding allows, staff will work on implementing projects in Tier B planning regions which include JD 30/18/13, Lost River (Branch 200 of JD 11 and Upper Thief/SD 83. Project examples include side water inlets, grassed waterways, grazing management and critical area planting. All practices will follow NRCS FOTG standards and specifications. Technical assistance will be provided by staff with appropriate JAA. SWCDs will enter into contracts with landowners for practices and will follow a cost share policy that will be approved by the Thief River Policy Committee after review by the BWSR Board Conservationist. Using the PTMApp Implementation Profiles, the average cost-effectiveness was determined for protection, filtration, and source reduction treatment groups in the Lower Thief, CD20, and Mud River Planning Regions. Using a budget of \$75,000, an estimated sediment reduction is 209 tons of sediment per year.</p>		
<b>Category</b>	AGRICULTURAL PRACTICES		
<b>Start Date</b>	22-Jun-20	<b>End Date</b>	
<b>Has Rates and Hours?</b>	No		
<b>Actual Results</b>	<p>The main targeted areas for the Priority Ag Practices are the Lower Thief/State Ditch 83, Marshall County 20 and Mud River/Judicial Ditch 11 followed by the Lost River (Branch 200 of Judicial Ditch 11, Judicial Ditch 30/18/13 and Upper Thief/State Ditch 83. These areas will be targeted for implementation of structural and non-structural ag practices that include Side Water Inlets (SWIs), cover crops or other priority practices identified by the PTMApp.</p>		

Activity Action - JD23 SWIs			
<b>Practice</b>	410 - Grade Stabilization Structure	<b>Count of Activities</b>	2
<b>Description</b>	Two side water inlets were installed along the west side of JD23, downstream of 230th St. NE, as the ditch bank was being re-sloped		
<b>Proposed Size / Units</b>	6.00 COUNT	<b>Lifespan</b>	10 Years
<b>Actual Size/Units</b>	2.00 COUNT	<b>Installed Date</b>	4-Nov-22
<b>Mapped Activities</b>	2 Point(s)	<b>Technical Assistance Provider</b>	Private Consultant

Final Indicator for JD23 SWIs			
<b>Indicator Name</b>	SEDIMENT (TSS)	<b>Value</b>	2.06

<b>Indicator Subcategory/Units</b>	<b>WATER POLLUTION (REDUCTION ESTIMATES) TONS/YR</b>	<b>Calculation Tool</b>	<b>PTMApp - Catchment</b>
<b>Waterbody</b>	Thief River		

**Grant Activity - 2020 Thief River 1W1P Project Development**

<b>Description</b>	<p>Project development includes expenses such as landowner meetings, project mailings, identifying priority projects, and developing necessary agreements or contracts. Local Government Units (LGU) staff will work with the Ditch Authority and private landowners to discuss resource concerns and implementing grade stabilization structures or other agricultural practices. The PTMApp will be used to target landowner outreach for priority projects identified in the attached 2020 &amp; 2021 Workplan. A structural and a vegetative cost share policy/docket will need to be developed as well. Work to be done will be to identify locations, rank potential streambank stabilization projects and contact landowners and for streambank stabilization projects. Conduct site visit with TSA staff. Identify locations for Priority Ag Practices for potential Side Water Inlets (SWIs), Grassed Waterways, Water and Sediment Control Basins, Grade Stabilization projects and contact landowners. Create cost share policy, project ranking, project request forms, prepare cost share contracts and vouchers and ledger.</p> <p>An estimated 50% of the time will be for developing cost-share policy, developing contracts with landowners, and agreements with LGUs. An estimated 50% of project development will be for marketing including contacting landowners by phone, mailings and meetings.</p>		
<b>Category</b>	PROJECT DEVELOPMENT		
<b>Start Date</b>	22-Jun-20	<b>End Date</b>	
<b>Has Rates and Hours?</b>	Yes		
<b>Actual Results</b>	<p>The Thief River 1W1P Project Work Group used these in 2020 and 2021. Funds were used for coordination with landowners or other Local Government Units (LGU) on projects, landowner meetings, project mailings, developing agreements or contracts and developing Cost Share Policy.</p> <p>A mailing was done in 2020 to promote cover crop in selected priority watersheds. The Thief River 1W1P staff had few call backs after the mailing, but no contracts have been signed as of yet.</p>		

**Grant Activity - 2020 Thief River 1W1P Stabilize JD23 Outlet in Marshall County**

<p><b>Description</b></p>	<p>The outlet of JD23 is located near the Hillyer Farm Bridge in Marshall County. Head-cutting at the outlet is creating steep and unstable banks that slough causing sediment to enter the Thief River. This reach of the Thief River is impaired for Total Suspended Solids (TSS)/Turbidity. The project will stabilize 2,000 linear feet of the legal ditch and reduce an estimated 200 tons of sediment. The sediment reduction goal for the Lower Thief River Planning Region is 2,335 tons per year. This JD 23 Outlet practice will follow standards and specifications found in the NRCS FOTG. The Marshall County Ditch Authority will be responsible for this Ditch system repair and for the Operation and Maintenance of this project. They also will be responsible for the surveying, designing and authority to sign off on the project with their appropriate Job Approval Authority (JAA).</p> <p>Streambank stabilization projects in the Lower Thief River Planning Region are identified in the plan to reduced sediment. Streambank erosion estimates from the 2015 Geomorphology Report indicate 1,620 tons of sediment per year is deposited into the Thief River downstream of Agassiz National Wildlife Refuge. The plan goal for sediment reduction is 2,335 tons per year. The reduction estimate for 1000 feet of streambank stabilization along the lower Thief River is 99 tons per year based on estimates from the HSPF/SAM. Streambank Stabilization Projects will follow standards and specifications found in the NRCS FOTG. Right now we do not know if the Watershed District or the landowner will be the contract holder and who also will be in control of the Operation and Maintenance of the project. There is potential for both the Watershed District and the landowner to each be responsible for the contract or for both of them to work together.</p>
<p><b>Category</b></p>	<p>STREAMBANK OR SHORELINE PROTECTION</p>
<p><b>Start Date</b></p>	<p>22-Jun-20 <b>End Date</b></p>
<p><b>Has Rates and Hours?</b></p>	<p>No</p>
<p><b>Actual Results</b></p>	<p>Marshall County says there is a bidding process that will be done in September 2021 and the project will move forward from there.</p> <p>Three reaches of eroding streambank along the Lower Thief River were stabilized with toe-wood sod mats, rip-rap, and re-sloping. Construction was completed in the fall of 2021. Quality Spray Foam/Anderson Excavation was hired to complete the work.</p>



Activity Action - CR 117 Gully Stabilization			
Practice	410 - Grade Stabilization Structure	Count of Activities	1
Description	An eroding gully between a culvert under CR 117 and the Thief River was stabilized with rock-drop structures		
Proposed Size / Units	100.00 LINEAR FEET	Lifespan	10 Years
Actual Size/Units	100.00 LINEAR FEET	Installed Date	8-Oct-21
Mapped Activities	1 Point(s)	Technical Assistance Provider	Private Consultant

**Final Indicator for CR 117 Gully Stabilization**

Indicator Name	SEDIMENT (TSS)	Value	3.28
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) TONS/YR	Calculation Tool	BWSR CALC (GULLY STABILIZATION)
Waterbody	Thief River		

**Final Indicator for CR 117 Gully Stabilization**

Indicator Name	PHOSPHORUS (EST. REDUCTION)	Value	3.77
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) LBS/YR	Calculation Tool	BWSR CALC (GULLY STABILIZATION)
Waterbody	Thief River		

Activity Action - Lower Thief River Streambank Stabilization Site D			
Practice	580 - Streambank and Shoreline Protection	Count of Activities	1
Description	An actively eroding streambank was stabilized with toe-wood sod mat and re-sloping		
Proposed Size / Units	333.00 LINEAR FEET	Lifespan	10 Years
Actual Size/Units	314.00 LINEAR FEET	Installed Date	8-Oct-21
Mapped Activities	1 Line(s)	Technical Assistance Provider	Private Consultant

**Final Indicator for Lower Thief River Streambank Stabilization Site D**

Indicator Name	SEDIMENT (TSS)	Value	13.52
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) TONS/YR	Calculation Tool	Other
Waterbody	Thief River		

Activity Action - Lower Thief River Streambank Stabilization Site B			
Practice	580 - Streambank and Shoreline Protection	Count of Activities	1
Description	A reach of eroding streambank along the Thief River was stabilized with toe-wood sod mat and re-sloping		
Proposed Size / Units	333.00 LINEAR FEET	Lifespan	10 Years
Actual Size/Units	356.00 LINEAR FEET	Installed Date	8-Oct-21
Mapped Activities	1 Line(s)	Technical Assistance Provider	Private Consultant

Final Indicator for Lower Thief River Streambank Stabilization Site B			
Indicator Name	SEDIMENT (TSS)	Value	31.9
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) TONS/YR	Calculation Tool	Other
Waterbody	Thief River		

Activity Action - Lower Thief River Streambank Stabilization Site A			
Practice	580 - Streambank and Shoreline Protection	Count of Activities	1
Description	Eroding streambank stabilized with toe-wood sod mat and re-sloping		
Proposed Size / Units	334.00 LINEAR FEET	Lifespan	10 Years
Actual Size/Units	275.00 LINEAR FEET	Installed Date	8-Oct-21
Mapped Activities	1 Line(s)	Technical Assistance Provider	Private Consultant

Final Indicator for Lower Thief River Streambank Stabilization Site A			
Indicator Name	SEDIMENT (TSS)	Value	8.45
Indicator Subcategory/Units	WATER POLLUTION (REDUCTION ESTIMATES) TONS/YR	Calculation Tool	Other
Waterbody	Thief River		

Activity Action - JD23 Outlet Stabilization			
Practice	410 - Grade Stabilization Structure	Count of Activities	1
Description	Rock structures were installed to stabilize a severely headcutting drainage outlet near the JD23 confluence with the Thief River.		
Proposed Size / Units	2,000.00 LINEAR FEET	Lifespan	10 Years
Actual Size/Units	410.00 LINEAR FEET	Installed Date	12-Oct-21
Mapped Activities	2 Point(s)	Technical Assistance Provider	Private Consultant

Final Indicator for JD23 Outlet Stabilization			
<b>Indicator Name</b>	SEDIMENT (TSS)	<b>Value</b>	149
<b>Indicator Subcategory/Units</b>	WATER POLLUTION (REDUCTION ESTIMATES) TONS/YR	<b>Calculation Tool</b>	BWSR CALC (GULLY STABILIZATION)
<b>Waterbody</b>	Thief River		
Final Indicator for JD23 Outlet Stabilization			
<b>Indicator Name</b>	SEDIMENT (TSS)	<b>Value</b>	40
<b>Indicator Subcategory/Units</b>	WATER POLLUTION (REDUCTION ESTIMATES) TONS/YR	<b>Calculation Tool</b>	BWSR CALC (GULLY STABILIZATION)
<b>Waterbody</b>	Thief River		

**Grant Activity - 2020 Thief River 1W1P Technical and Engineering**

<p><b>Description</b></p>	<p>Technical and Engineering expenses include surveying and design of structural agricultural practices/projects and streambank stabilization structures from a licensed engineer or staff with NRCS Job Approval Authority for the specific practice. Funding may be used to hire additional, or supplement, staff to assist with survey and design work.</p> <p>Technical and Engineering Projects for 2020-2021 Include/As Funds Allow:                  Priority 1: Feasibility study, survey and design work on the Mud River/JD11 – USFWS been looking for money for this project. The majority of the project lies within Agassiz National Wildlife Refuge.                  Priority 2: Survey and design work on the outlet of JD30 with the intent to stabilize the outlet pending future funding.                  Priority 3: Moose River Streambank Project: Feasibility Study with potential for survey and design work.</p> <p>Staff credentials or Job Approval Authority can be viewed at their respective offices.</p> <p>Practices will follow the NRCS Field Office Technical Guide (FOTG) standards or other applicable standards approved by a Professional Engineer. TSA staff will survey and design 75% of the projects, SWCD staff will survey and design 15% of the projects. The remaining 10% of survey and design work can be provided through private engineering firms. County engineers may also assist with survey and design depending on TSA and SWCD workload which can count towards the local match portion of the grant.</p>	
<p><b>Category</b></p>	<p>TECHNICAL/ENGINEERING ASSISTANCE</p>	
<p><b>Start Date</b></p>	<p>22-Jun-20</p>	<p><b>End Date</b></p>
<p><b>Has Rates and Hours?</b></p>	<p>Yes</p>	
<p><b>Actual Results</b></p>	<p>Funds in 2020 and in 2021 were used for surveys and designs on structural Ag Best Management Practices (AG BMP), such as the work being planned for the stabilization of the Judicial Ditch 23 outlet on the Thief River/State Ditch 83.</p> <p>For the 2021 Lower Thief River streambank stabilization, Houston Engineering, Inc. was hired and designed plans, developed construction specifications, completed the permitting, advertised for bids, provided a cost estimate, mapped easements, created a set of plans, coordinated contractor quotes, organized a pre-construction meeting, completed construction staking, and conducted construction inspection (along with RLWD staff).</p> <p>RLWD staff collected soil boring data along the historic Mud River channel for the Mud River Restoration project, along with MNDNR, USFWS, and NRCS staff.</p>	

## Grant Attachments

Document Name	Document Type	Description
<b>2020 &amp; 2021 Biennial Workplan</b>	Grant	2020 - Thief River Watershed Based Funding
<b>2020 Watershed Base Implementation Funding</b>	Grant Agreement	2020 Watershed Based Implementation Funding - Red Lake WD (Thief)
<b>2020 Watershed Based Implementation Funding EXECUTED</b>	Grant Agreement	2020 Watershed Based Implementation Funding - Red Lake WD (Thief)
<b>All Details Report</b>	Workflow Generated	Workflow Generated - All Details Report - 01/24/2022
<b>All Details Report</b>	Workflow Generated	Workflow Generated - All Details Report - 02/01/2021
<b>All Details Report</b>	Workflow Generated	Workflow Generated - All Details Report - 02/24/2021
<b>All Details Report</b>	Workflow Generated	Workflow Generated - All Details Report - 08/16/2021
<b>All Details Report</b>	Workflow Generated	Workflow Generated - All Details Report - 08/17/2021
<b>Application</b>	Workflow Generated	Workflow Generated - Application - 03/31/2020
<b>Thief River Implementation Schedule</b>	Grant	2020 - Thief River Watershed Based Funding
<b>Work Plan</b>	Workflow Generated	Workflow Generated - Work Plan - 05/29/2020