SECTION 1. EXECUTIVE SUMMARY

The Red Lake River (RLR) Comprehensive Watershed Management Plan (CWMP) was initially approved in 2017 as a pilot of the One Watershed, One Plan (1W1P) Program administered by the Board of Water and Soil Resources (BWSR) through Minnesota Statutes 103B.801. The plan was amended in 2019 to add Water Management Districts (WMDs) for the Red Lake Watershed Distrct (RLWD). The purpose of the plan is to provide a coordinated approach for watershed managers (local authorities, soil and water conservation districts, counties, and watershed district) as they work to protect and restore the watershed's resources.

This plan focuses on targeted and measurable implementation efforts and identifies actions to manage water quantity, and protect and restore water quality, natural habitat, recreational uses, and drinking water sources in the watershed. The purpose of the plan amendment remains the same as the initial plan approved in 2017. However, significant changes have been made.

Partners have been involved in multiple planning efforts since the pilot and learned from other planning efforts. Through implementation efforts, workplan development, quality assurance measures, mid-point evaluation, and other efforts, the partnership has gained valuable experience for plan development and implementation. The most significant changes from the 2017 RLR CWMP are:

- Management areas are no longer included- four planning regions include the Upper, Middle, Lower, and Grand Marais Creek
- Goals were significantly decreased to make implementation and tracking easier
- Issues statements replace priority issue statements and were consolidated to better reflect resource concerns
- Actions are consolidated and cost-estimates for non-structural and structural practices were determined using Prioirtize, Target, and Measure Application (PTMApp) data and reduction numbers
- Planning boundaries now align with the jurisdicaitonal boundary of the RLWD, exluding part of the previously included Grand Marais Creek watershed

Planning Area

The Red Lake River Watershed One Watershed, One Plan area is located within the Red Lake River subwatershed in northwestern Minnesota. The planning area includes the Red Lake River 8-Digit Hydrologic Unit (HUC-8) and a portion of the Grand Marais Creek HUC-8 The planning area follows the jurisdictional boundary of the RLWD. Portions of Pennington, Polk, Red Lake, Marshall, Clearwater, and Beltrami counties are covered in the planning area which extends from the west outlet of Lower Red Lake to the Red River of the North. Marshall, Beltrami, and Clearwater chose not to participate due to the small portion of their jurisdiction being located within the planning area. The Red Lake Nation and White Earth Nation were invited to participate in the plan amendment process but did not respond.

The size, physical makeup, and diverse land use of the planning area led to the need for its division into four distinct planning zones, shown in Figure 1.1. The Upper Planning Region sits on a plain above the Red River Valley with extensive wetlands along its eastern side. The Middle Planning Region is roughly overlaid onto the gently rolling topography dropping to the Red River Valley with abundant ridges formed from Glacial Lake Agassiz. The Lower Planning Region has flat topography, productive farmland, and lies within the Red River Valley. The Grand Marais Creek planning region also has flat topography and drains directly to the Red River of the North.

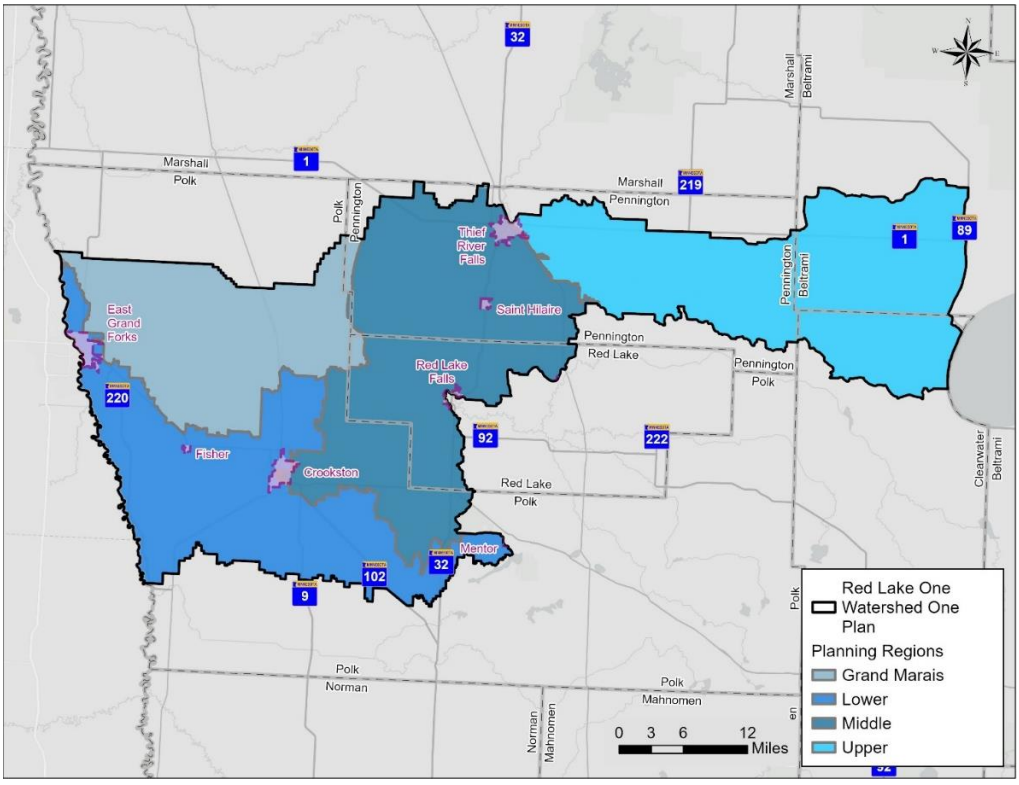


Figure 1.1 Red Lake River Watershed Planning Area with Planning Regions

Purpose, Roles, and Responsibilities

The RLR Partnership operates under a memorandum of agreement (MOA) between Polk County, West Polk SWCD, Red Lake County, Red Lake County SWCD, Pennington County, Pennington SWCD, and the RLWD. Small portions of Beltrami, Clearwater, and Marshall counties exist within the planning area but these entities chose not to enter into the MOA because of the small portion existing within the planning area. The 1W1P process continues to use existing authorities; therefore, a representative from each governmental unit serves on the Policy Committee, which is the decision-making body for this plan.

East Polk SWCD joined the Partnership in 2024 through a resolution passed by their SWCD Board after notification of plan initiation. A Board member was appointed to the Policy Committee from the East Polk SWCD. The RLR Planning Work Group consists of staff from each of the entities in the MOA, and generated the content in this plan. The Advisory Committee consists of state agencies and local stakeholders, and contributes to plan content in an advisory role. Figure 1.2 identifies committees and roles and responsiblities of the Policy Committee, Advisory Committee and Planning Work Group.

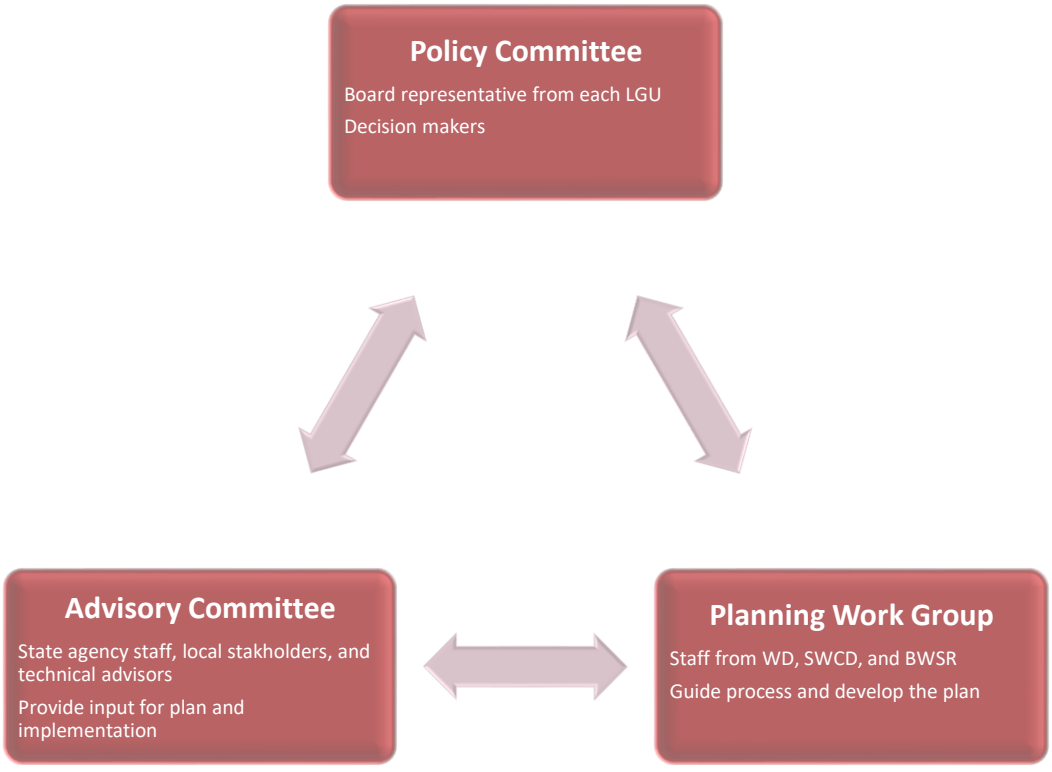


Figure 1.2. Committees and roles of Red Lake River Watershed Partnership

Plan Initiation and Public Involvement

The Partnership began the CWMP amendment by sending out the 60-day notification on April 1, 2024 to stakeholders. A map of the RLR Planning Area (Figure 1.3) was sent with the 60-day notification.

Recipients of the 60-day notification were invited to submit water management issues the resulting plan amendment should address and expectations for the plan. Responses were received by June 3, 2024 from the Red Lake County SWCD, BWSR, Minnesota Department of Health (MDH), Minnesota Pollution Control Agency (MPCA), and the Minnesota Department of Natural Resources (DNR).

A kick-off meeting for the amendment process was held June 12, 2024, 10:00 AM, at the RLWD. The kickoff meeting was an opportunity to review and compile watershed data, discuss priority issues, and provide additional opportunity for the Planning Work Group to gain feedback.

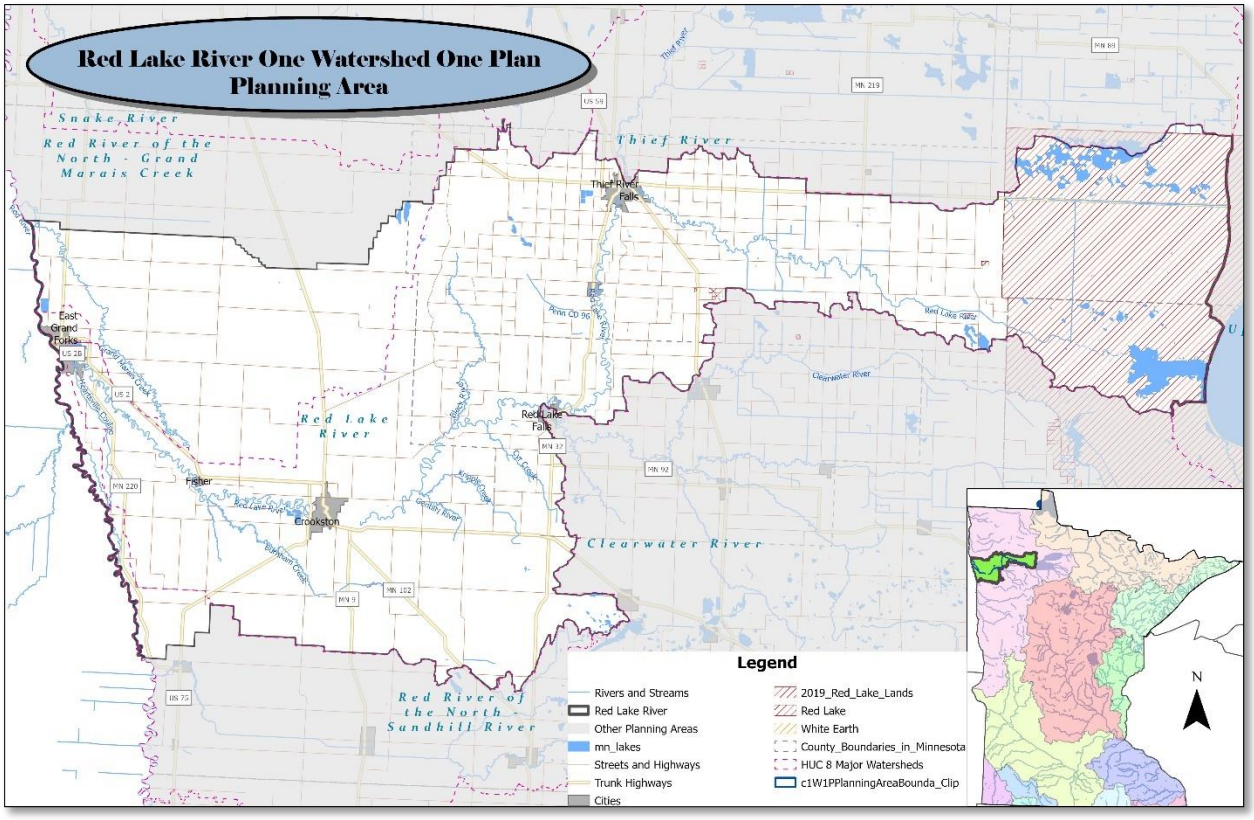


Figure 1.3. 60-day notification map

Issue Statements

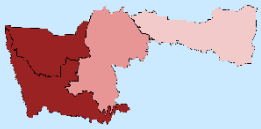
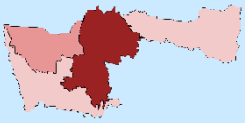
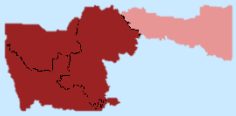
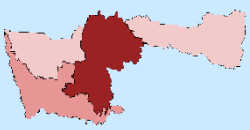
An issue can be defined as a problem, risk, or opportunity related to a resource's condition. A resource can be defined as a natural feature on the landscape. Issues are

identified to set goals and actions that will address issues in the watershed. Issues in the 2017 CWMP were developed through a review of existing studies and reports, input from state and local agencies, and input from Advisory and Policy Committee members.

Issue statements are prioritized by planning region to guide efficient implementation of practices that benefit a resource. The prioritization is shown through icons, with darker red indicating that issue is a high priority in that region. Figure 1.4 provides an example of overall issue statements which includes the resource category, issue, issue statement, and priority planning region. The complete list can be found in Section 3. High priority indicates the majority of resources (both time and funding) will be spent in these areas. Medium priority areas will be addressed as time, funding, and partnerships allow. Low priority areas will be addressed as opportunities arise.

Planning Region Key:	**High Priority**	**Medium Priority**	**Low Priority**	**Not Applicable**

Figure 1.4 Example priority issues

Resource Category	Issue	Issue Statement	Prioritization
Surface Water Quality	Nutrient Loading	Excess phosphorus loading may cause river eutrophication and impact downstream Lake Winnipeg.	
	Excess Bacteria	Surface waters impairments due to *E. Coli* impact recreational use of waters.	
	Upland Erosion and Soil Health	Wind and water erosion result in degraded agricultural productivity and sediment transport into surface waters, contributing to water quality impairments and decreasing aquatic habitat quality.	
	Unstable River and Stream Channels	Streambank and in-channel erosion and channel instability impacting water quality and habitat.	

The priority issues identified in this plan were developed primarily from the prioritization statements in the 2017 CWMP with additional input from:

- Agency responses to the 60-day plan notification
- The Grand Marais Creek and Red Lake River Watershed Restoration and Protection Strategy (WRAPS)
- Neighboring 1W1P efforts

Measurable Goals

Measureable goals (Section 4) are identified to guide and measure quantifiable changes to resource conditions in the ten-year lifespan of the plan. The goals were developed by the Planning Work Group with input from the Advisory Committee and approved by the Policy Committee. Table 1.1 lists the 10-year plan goals, priority issues addressed, and the source used to determine the goal. More specific goals, or trackable metrics, are identified by planning region in the implementation section (Section 5) of the plan.

Different data sets, models, and existing plans were used to determine the goals. The mid-point evaluation and BWSR Performance Review Assistance Program (PRAP) also helped establish goals by using implementation data and assessment of progress towards goals.

The Prioritize, Target, and Measure Application (PTMApp) was used to define load reduction goals for sediment, phosphorus, and nitrogen. PTMApp was also utilized to determine the soil health acre goal. The MPCA Healthier Watershed database was used to help establish the streambank stabilization goal. Completed project data between 2014-2023 (streambank and shoreline protection and stream channel restoration) was also used to establish the stream channel stabilization goal.

The Minnesota Department of Health and AECOM completed a source water assessment for the City of Thief River Falls in late 2023. A Surface Water Intake Protection Plan (SWIPP) was completed in 2024. This 10-year plan includes a list of projects, expected changes in population, expected changes in land use, expected water quality changes, recommended actions, and funding sources. Partners in this plan will seek opportunities to partner on the implementation of best management practices identified in the SWIPP.

Table 1.1. 10-Year Goals

Goal	Priority Issues Addressed	10-Year Goal	Source/Notes
Upland Erosion and Nutrients	• Nutrient Loading • Upland Erosion and Soil Health • Unstable River and Stream Channels	Reduce overland sediment loading by **4,200 tons/year.** Reduction by Planning Region**:** • Upper **252 tons/year or 0.9%** • Middle **2,259 tons/year or 2.9%** • Lower **1,387 tons/year or 1.6%** • Grand Marais **302 tons/year or 0.5%**	PTMApp
Soil Health	• Nutrient Loading • Upland Erosion and Soil Health • Upland and Wildlife Habitat	Implement **17,155 acres** of soil health practices	PTMApp
Flooding	• Flood Damage Reduction and Resiliency • Drainage System Inadequacy	Reduce likelihood of flooding and improve groundwater recharge by adding **4,000 ac-ft of storage** to the landscape	Red River Basin Commission's Long Term Flood Solutions
Groundwater	• Groundwater Contaminants	Protect groundwater from contamination by sealing (on average) **5 wells per year** (or 50 wells over 10 years)	Number of wells
Bacteria	• Nutrient Loading • Groundwater Contaminants • Source Water Protection • Excess Bacteria	Upgrade **100 Subsurface Sewage Treatement Systems (SSTS)** to reduce bacteria and nutrients and protect groundwater Implement **3 manure management** practices to reduce bacteria from livestock	Estimate 10 SSTS Upgrades per year
Stormwater	• Stormwater Runoff • Excess Bacteria • Nutrient Loading	Implement 3 **stormwater BMPs** to improve surface water quality	Action included in Capital Improvement Project Table
Streambank Stabilization	• Unstable River and Stream Channels • Nutrient Loading	Implement stream channel stabilization to prevent **1,860 tons/year** of sediment loss through bank erosion	9,300 linear feet using an estimated

Goal	Priority Issues Addressed	10-Year Goal	Source/Notes
	• Shoreland and Riparian Management		reduction of 200 tons/1,000 feet
Riparian Management	• Unstable River and Stream Channels • Nutrient Loading • Shoreland and Riparian Management	Establish, or improve quality, of **3,020 acres** of perennial vegetation within riparian corridor area	10% of Land protection goal
Drainage Management	• Altered Hydrology • Drainage System Instability • Drainage System Inadequacy	Identify inadequate drainage systems, including outlets, and stabilize or repair **12 miles**	Advisory and Planning Work Group Input
Land Protection	• Wetland and Upland Habitat • Flood Damage Reduction and Resiliency • Groundwater Supplies	**30,200 acres** of land are protected through new enrollment into conservation easements or re-enrollment of temporary easements Complete **25 forest stewardship plans**, managing **1,000 acres**	Maintain exisitng CRP acres – data from NRCS

Implementation

Implementation of the plan is driven by funding, adoption of voluntary conservation practices, and local staff capacity. Outreach and incentives will be used to assist with voluntary implementation of plan actions on private lands. The targeted implementation schedule in Section 5 describes actions to achieve goals, who will lead the efforts, partners, anticipated timeline, and cost-estimates.

Implementation programs are the mechanism to implement actions in the targeted implementation schedule. This plan continues implementation programs within the plan area: Projects & Practices, Capital Improvements, Regulatory & Ordinances, Data Collection & Monitoring, and Education & Outreach.

Three funding levels are provided in this plan. Funding Level 1 is the estimated total of current funding in the watershed. The Partnership is eligible to receive Watershed Based Implementation Funds (WBIF) from BWSR, which continues available funding to Level 2. Level 2 is additive with Level 1, and the watershed partners plan to operate at Funding Level 2 throughout implementation (Table 1.2).

Level 3 funding recognizes conservation work by partner groups that contribute towards plan goals. Level 3 funding includes the Conservation Reserve Program (CRP), Section 319 Grants, Sustainable Forest Incentive Act (SFIA), Lessard-Sams Outdoor Heritage Funds, Natural Resource Conservation Service (NRCS), and state agency projects such as surface and groundwater monitoring that are not contracted through the local governments.

Table 1.2. Implementation Programs and Estimated Costs

Funding Level 2: Current + WBIF		
	Estimated Annual Costs	**Estimated 10-year Cost**
Implementation Programs		
Projects & Practices	$1,650,000	$16,500,000
Operations & Maintenance	$550,000	$5,500,000
Data Collection & Monitoring	$200,000	$2,000,000
Education & Outreach	$150,000	$1,500,000
Regulatory (Statutory/Ordinances)	$400,000	$4,000,000
Capital Projects (e.g. Flood Control; Stream Restoration)	$650,000	$6,500,000
Total	**$3,600,000**	**$36,000,000**
WBIF Level 2 annual funding based on $1.7 million for 2-year grant		
Level 3 Funding (Current + WBIF + Partner) **$75,275,866**		

Plan Administration and Coordination

The Red Lake River Comprehensive Watershed Management Plan will be implemented by the Red Lake River Planning Work Group. This group consists of the following partners:

- Red Lake Watershed District
- Pennington County and SWCD
- Red Lake County and SWCD
- Polk County
- East Polk and West Polk SWCDs

The Partnership operates under an existing MOA for planning and implementation of the Red Lake River Comprehensive Watershed Management Plan (**Appendix A**). The Policy Committee oversees plan implementation with the advice and consent of the individual county RLWD, and SWCD boards under the MOA. Currently, the RLWD is the fiscal agent and Pennington SWCD is the plan coordinator. Both the fiscal agent and plan coordinator are appointed annually by the Policy Committee.

The Planning Work Group has been preparing an annual plan with a list of upcoming projects and recently completed projects. This annual plan is reviewed by the Advisory and Policy Committee and used to develop WBIF grant workplans. Plan actions (projects and practices) are recorded by watershed partners in a tracking system and summarized, at minimum, annually. In addition, the existing committees will continue into implementation in the same roles (Figure 1.3).

Further project tracking among the Planning Work Group is done through a shared Google Doc. Spreadsheet. Projects are entered into the shared spreadsheet and include detailed information such as location, project name, lead local entity, contract number, funding source, cost-estimate, budgeted grant expense, total grant expense, pollution reduction estimates, and other details needed to track projects and financials. The Planning Work Group also utilizes an ArcGIS Online tracking database and is considering better options to improve project tracking.