

Targeting Practices

Issues are targeted by resource as shown in **Section 4** in a variety of ways to help with forming the Targeted Implementation Schedule in this section. This plan includes both targeted “Restoration” actions and targeted “Protection” actions.

Restoration

“Restoration” actions are targeted to impaired streams, including both the “Nearly Restored/Barely Impaired” Category and “Restoration” Category (**Appendix D**). PTMApp is a Geographic Information Systems (GIS) tool that was used to provide targeting for restoration actions on agricultural lands. PTMApp helps to target actions on the landscape that directly address the plan goals.

This plan leverages PTMApp data to identify where many new practices are feasible, and of these practices how much each will cost, the estimated water quality benefit, and how much progress implementation of that action can make toward planning region goals. PTMApp estimates existing pollutant loads and water quality benefits for a wide range of practices. Practices for this plan that are identified by PTMApp align with voluntary local implementation trends, have the highest cost-benefit ratios, and best sediment reduction as measured at the edge of the field. For more information about how PTMApp was used to inform implementation see **Appendix E**.

Protection

“Protection” actions are targeted to unimpaired streams and high-quality habitat areas. The “Nearly Impaired” waters are a high priority for protection projects that will improve water quality conditions so that the waters do not become impaired in the future. The same projects and practices used to restore water quality in impaired waters can also be used to improve water quality in unimpaired (Nearly Impaired or Highest Quality, **Appendix D**) waters that have been prioritized for protection. The Riparian, Adjacency, Quality (RAQ) targeting method prioritizes areas for land protection, regardless of impairment status. Protecting private forests will benefit all adjacent waters, whether they are impaired, in need of restoration, or unimpaired and in need of protection. The Minnesota Prairie Plan was used to prioritize areas for prairie protection (DNR 2018).

Implementation

The numbers, cost, and locations of practices in the Targeted Implementation Schedule represent a best-case scenario for planning. Due to voluntary participation, field verification, and funding availability, prioritized projects may not be feasible, in which case the next highest priority project will be targeted. In addition, projects may emerge that were not identified in the Targeted Implementation Schedule and supporting maps. These projects will still be pursued if environmental and economic benefits are comparable to those identified in the Targeted Implementation Schedule. Implemented practices need to meet standards, be properly designed, and signed off by the proper authority.

A variety of factors will ultimately determine where implementation occurs, including but not limited to the following:

- Voluntary participation by landowners and residents
- Field verification of practice type and location
- Amount of funding available for implementation
- New data on resource conditions
- Emerging practices
- Practices/projects ready to implement
- Effectiveness of education and outreach and research initiatives

Priority Planning Regions

The long-term goals detailed in **Section 4** represent the desired future condition for the Clearwater River Watershed and its resources given time, funding, and capacity. The short-term goals represent what is possible to accomplish in 10 years, and that means putting efforts and funding toward areas that need it most.

To prioritize where to work first overall, the Clearwater River Watershed Planning Work Group looked at whether the issues from the Priority 'A' table in **Section 3** were considered either high, medium, or low priorities for each planning region by assigning either a 3, 2, or 1 to each issue, respectively. The results were tallied and represent the planning regions that contain the most pressing issues. The outcome is shown below in Figure 2 and indicates where funding will be focused first based on high, medium, and protection priority planning regions.

Planning Region Prioritization Key: ● = high priority restoration ● = medium priority restoration ● = protection priority

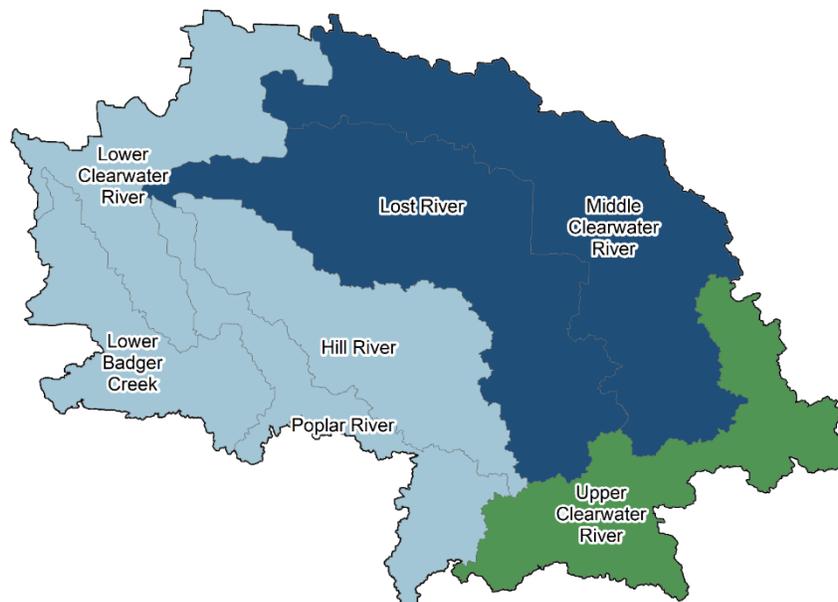


Figure 5.2. Planning Region Prioritization.

Implementation Programs

Implementation programs are the funding mechanism to implement actions in the Targeted Implementation Schedule. Some programs are implemented at a watershed-wide scale because they are applicable to the entire plan area. Projects and Practices are targeted to reflect the different needs and geographies of each planning region. For more details on each of these implementation programs, see **Section 6: Plan Implementation Programs**.

The Targeted Implementation Schedule for each program is noted below as to its location in this section and whether it applies to specific Planning Regions or is Watershed-Wide (Figure 5.3).

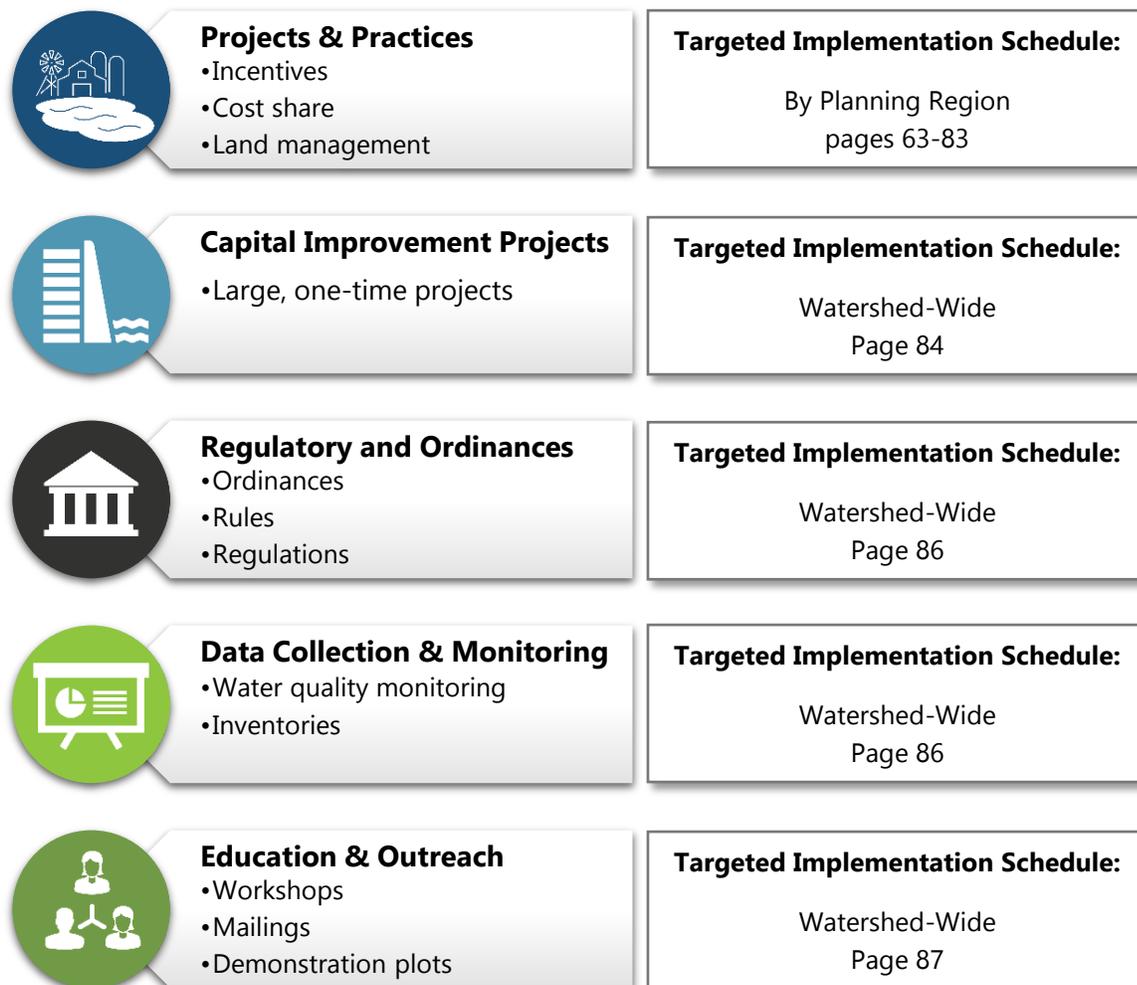


Figure 5.3. Implementation Programs and corresponding Targeted Implementation Schedule.

Upper Clearwater Planning Region



At a Glance

- **13%** of plan area
- Communities include **Bagley**
- Counties include **Clearwater, Beltrami, Mahanomen, Polk**
- Tribal Lands include **White Earth Reservation**

Protection Priority

Upper Clearwater Planning Region Overview

The Upper Clearwater Planning Region serves as the headwaters for the Clearwater River. Resource protection is a primary goal in this region as it contains forests, wetlands, and important lakes such as Buzzle, which is a Cisco Refuge Lake, and Clearwater, which is a DNR Lake with Outstanding Biological Significance. The City of Bagley is located in this planning region, which is the Clearwater County seat.

Upper Clearwater Goals

- High Value Resource Protection
- Soil Health
- Streambank and Riparian Stabilization
- Phosphorus Reduction
- Sediment Reduction
- Drinking Water Protection
- Stormwater Reduction

Upper Clearwater Planning Region Projects and Practices

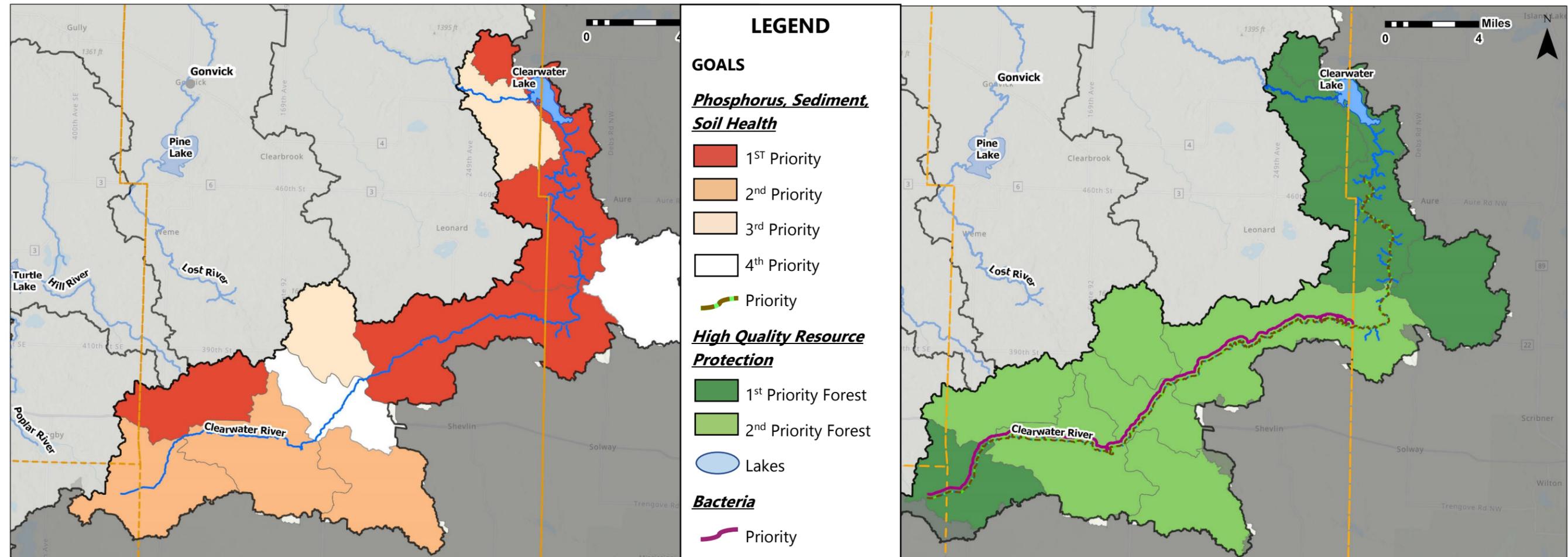
Action	Targeted Resources	10-Year Measurable Outcome	Measurable Goals										Timeline					Annual Estimated Cost	Total 10-Year Estimated Cost		
			Sediment	Phosphorus	Storage	Soil Health	Bacteria	Resource Protection	Drinking Water	Stormwater	Stream Stabilization	Ditch Stabilization	Responsibility/Partners (Bold = Lead)	2023-24	2025-26	2027-28	2029-30			2031-32	
Structural Agricultural Practices (sediment basins; grade stabilizations, side water inlets, filter strips, drainage water mgmt)	Clearwater River	510 tons sediment/yr. 119 lbs phosphorus/yr. 30 acre-feet storage	●	●	●	○					○	○	○	SWCDs, RLWD, NRCS, BWSR	●	●	●	●	●	\$21,462	\$214,623
Non-structural Agricultural Practices (cover crops, reduced tillage, prescribed grazing, conservation crop rotation, perennial crops)	Clearwater River	2,240 acres 1,574 tons sediment/yr. 420 lbs phosphorus/yr.	●	●	○	●								SWCDs, RLWD, NRCS, BWSR	●	●	●	●	●	\$19,401	\$194,854
Bacteria Reduction Projects (Livestock exclusion and watering facility, waste pit closures)	Clearwater River	2 projects	○	○			●				○	○		SWCDs, MPCA, NRCS, BWSR		●		●		\$1,500	\$15,000
Forest Protection Practices (SFIA or Easement)	Clearwater River, Clearwater Lake	7,603 acres	○	○	○			●			○	○		SWCDs, DNR, BWSR, State of MN	●	●	●	●	●	\$179,251	\$1,792,509
Forest Stewardship Plans	Clearwater River, Clearwater Lake	127 plans, 7,603 acres	○	○	○			●			○	○		SWCDs, DNR, BWSR, NRCS	●	●	●	●	●	\$8,617	\$86,167
Lake Enhancement Projects (rain gardens, shoreline restoration)	Clearwater Lake	233 lbs phosphorus/yr 1 lake project/yr	○	●				○						SWCDs, DNR, MPCA, BWSR		●	●	●	●	\$4,000	\$40,000
Stream Channel and Bank Stabilization Enhancement Projects (rock structures to stabilize channel bottoms, resloping)	See Figure 5.4	0.4 miles	○	○				○			●			RLWD, SWCDs, DNR, BWSR, MPCA (319 Grants), ACOE		●	●	●	●	\$2,000	\$20,000
Land Retirement Programs (CRP, CREP)	Clearwater River	196 acres in 2022 (36 acres expire in 2025)	○	○	○	○	○	●						SWCDs, RLWD, NRCS, TNC, DNR, BWSR	●	●	●	●	●	\$1,411	\$14,112
										Total Level 2 Funding Scenario (Current + WBIF)										\$56,980	\$570,644
										Total Level 3 Funding (Partner Projects & Other Funding Sources)										\$180,662	\$1,806,621

- Primary Goal this action will address
- Secondary Goal this action will address

Upper Clearwater Planning Region Targeting and Measuring

Restoration Targeting: Projects to reduce sediment and phosphorus and improve soil health were targeted based on where PTMApp identified practices with the best sediment reductions and where there were impairments. The Water Quality Benefits Calculator below can be used to add up reductions to reach the goal in this planning region. Implementation is not limited to just these practices; they are just the most commonly implemented in the watershed.

Protection Targeting: Projects to protect water quality were targeted based on nearly impaired reaches for phosphorus, sediment, or bacteria. Projects to protect habitat and outstanding water quality were targeted based on RAQ scoring (page 59). Benefits are noted below.



Water Quality Benefits Calculator					
Category	Practice (NRCS Code)	Average Sediment (tons/yr)	Average Phosphorus (lbs/yr)	Average Nitrogen (lbs/yr)	Average Cost
Nonstructural Practices (by acre)	Cover Crops (340)	0.8	0.2	4.6	\$50
	No Till (329)	1.0	0.2	4.8	\$50
	Perennial Crops (327)	0.4	0.3	2.3	\$50
	Forage & Biomass planting (512)	6.7	0.3	2.3	\$50
	Prescribed Grazing (528)	0.4	0.1	0.5	\$20
Structural Practices (by practice)	Riparian Buffer (390) – per practice	24.8	17.4	321.5	\$14,000
	Grade Stabilization (410)	3.6	0.4	8.7	\$20,000
	Grassed Waterway (412)	11.2	2.6	50.8	\$16,300
	WASCOB (638)	43.5	7.9	108.0	\$9,000

Habitat Protection Benefits	Water Quality Benefits
Wild Rice Cisco Trout Forest 	Clearwater Lake protection <ul style="list-style-type: none"> • Wild rice lake Buzzle Lake protection <ul style="list-style-type: none"> • Cisco lake Clearwater River Headwaters protection <ul style="list-style-type: none"> • Trout stream

Middle Clearwater Planning Region



At a Glance

- **22%** of plan area
- Communities include **Leonard**
- Counties include **Clearwater, Red Lake, Pennington**
- Tribal Lands include **Red Lake Reservation**

High Priority Restoration

Middle Clearwater Planning Region Overview

The Middle Clearwater Planning Region has a diverse landscape, with forested areas in the south, large wetlands and wild rice paddies in the center, and cropland in the northwest. The wetlands and wild rice define the region in terms of its resources and economic production. Leonard is the lone urban area in this planning region with a population of 43.

Middle Clearwater Goals

- Ditch Stabilization
- Streambank and Riparian Stabilization
- Soil Health
- Sediment Reduction
- Runoff Reduction
- Bacteria Reduction
- High Value Resource Protection
- Phosphorus Reduction
- Drinking Water Protection

Middle Clearwater Planning Region Projects and Practices

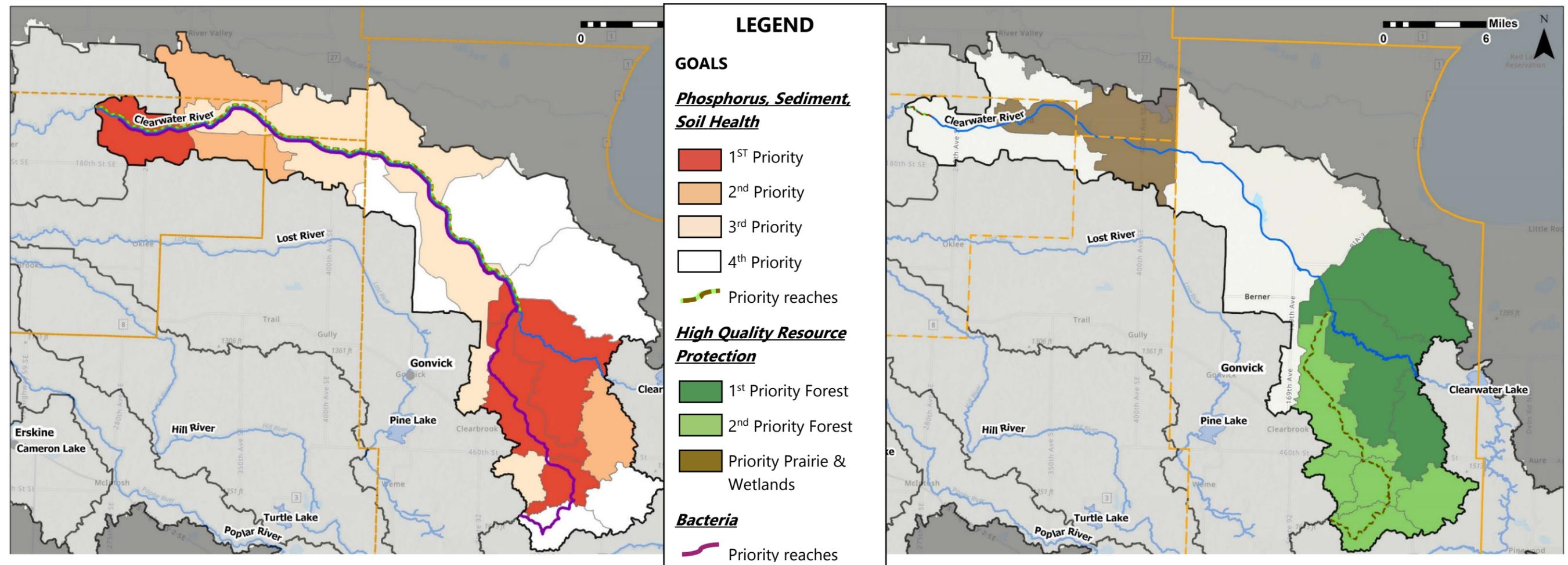
Action	Targeted Resources	10-Year Measurable Outcome	Measurable Goals										Timeline					Annual Estimated Cost	Total 10-Year Estimated Cost		
			Sediment	Phosphorus	Storage	Soil Health	Bacteria	Resource Protection	Drinking Water	Stormwater	Stream Stabilization	Ditch Stabilization	Responsibility/Partners (Bold = Lead)	2023-24	2025-26	2027-28	2029-30			2031-32	
Structural Agricultural Practices (sediment basins; grade stabilizations, side water inlets, filter strips, drainage water mgmt)	Ruffy Brook Clearwater River	1,217 tons sediment/yr 261 lbs phosphorus/yr 66 acre-feet storage	●	●	●	○					○	○	○	SWCDs, RLWD, NRCS, BWSR	●	●	●	●	●	\$53,687	\$536,872
Non-structural Agricultural Practices (cover crops, reduced tillage, prescribed grazing, conservation crop rotation, perennial crops)	Ruffy Brook Clearwater River	3,463 acres 1,384 tons sediment/yr 485 lbs phosphorus/yr	●	●	○	●								SWCDs, RLWD, NRCS, BWSR	●	●	●	●	●	\$30,103	\$301,281
Bacteria Reduction projects (Livestock exclusion and watering facility, waste pit closures)	Ruffy Brook Clearwater River	5 projects	○	○			●				○	○	SWCDs, MPCA, NRCS, BWSR			●	●	●	\$3,750	\$37,500	
Forest Protection Practices (SFIA or Easements)	Ruffy Brook Clearwater River	3,852 acres	○	○	○			●			○	○	SWCDs, DNR, BWSR, State of MN	●	●	●	●	●	\$95,042	\$950,417	
Forest Stewardship Plans	Ruffy Brook Clearwater River	64 plans, 3,852 acres	○	○	○			●			○	○	SWCDs, DNR, BWSR, NRCS	●	●	●	●	●	\$4,366	\$43,656	
Stream Channel and Bank Stabilization Enhancement Projects (rock structures to stabilize channel bottoms, resloping)	See Figure 5.4	1.8 miles	○	○								●		RLWD, SWCDs, DNR, BWSR, MPCA (319 Grants), ACOE	●	●	●	●	●	\$9,000	\$90,000
Ditch System Enhancement Projects (rock and grade stabilization structures in ditch bottom)	See Figure 5.4	2.6 miles	○	○									●	RLWD, Counties, SWCDs	●	●	●	●	●	\$10,400	\$104,000
Land Retirement Programs (CRP, CREP)	Ruffy Brook Clearwater River	4,890 acres in 2022 (1,179 acres expire in 2025)	○	○	○	○	○	●						SWCDs, RLWD, NRCS, TNC, DNR, BWSR	●	●	●	●	●	\$35,208	\$352,080
Total Level 2 Funding Scenario (Current + WBIF)																			\$111,306	\$1,113,309	
Total Level 3 Funding (Partner Projects & Other Funding Sources)																			\$130,250	\$1,302,497	

- Primary Goal this action will address
- Secondary Goal this action will address

Middle Clearwater Planning Region Targeting and Measuring

Restoration Targeting: Projects to reduce sediment and phosphorus and improve soil health were targeted based on where PTMApp identified practices with the best sediment reductions and where there were impairments. The Water Quality Benefits Calculator below can be used to add up reductions to reach the goal in this planning region. Implementation is not limited to just these practices; they are just the most commonly implemented in the watershed.

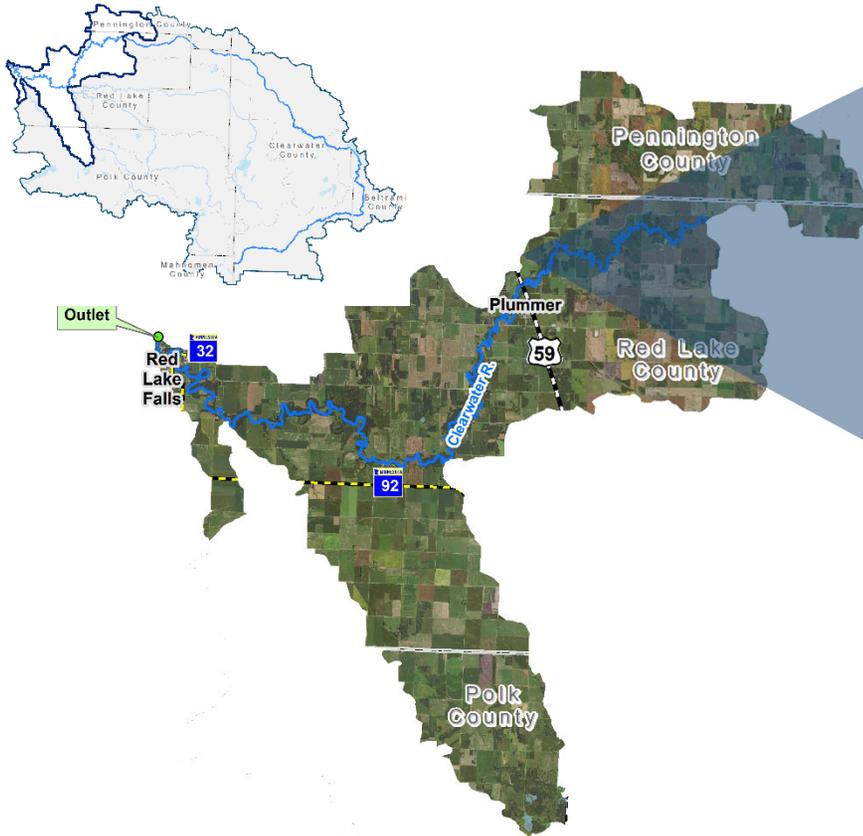
Protection Targeting: Projects to protect water quality were targeted based on nearly impaired reaches for phosphorus, sediment, or bacteria. Projects to protect habitat and outstanding water quality were targeted based on RAQ scoring (page 59). Benefits are noted below.



Water Quality Benefits Calculator					
Category	Practice (NRCS Code)	Average Sediment (tons/yr)	Average Phosphorus (lbs/yr)	Average Nitrogen (lbs/yr)	Average Cost
Nonstructural Practices (by acre)	Cover Crops (340)	0.6	0.2	4.6	\$50
	No Till (329)	0.7	0.3	4.8	\$50
	Perennial Crops (327)	0.5	0.3	2.3	\$50
	Forage & Biomass planting (512)	7.7	0.3	2.3	\$50
	Prescribed Grazing (528)	0.4	0.1	0.5	\$20
	Riparian Buffer (390) – per practice	15.8	4.9	97.2	\$3,900
Structural Practices (by acre)	Grade Stabilization (410)	15.7	1.0	20.1	\$20,000
	Grassed Waterway (412)	20.4	1.7	30.9	\$9,800
	WASCOB (638)	30.7	7.5	107.7	\$9,000

Habitat Benefits		Water Quality Benefits	
Wild Rice	Waterfowl Migration	Ruffy Brook protection	Clearwater River protection
Forest	Pollinators	Wetland protection	Water storage
Prairie	Wetlands		

Lower Clearwater Planning Region



At a Glance

- **12%** of plan area
- Communities include **Plummer, Red Lake Falls**
- Counties include **Red Lake, Polk, Pennington**

Medium Priority Restoration

Lower Clearwater Planning Region Overview

The Lower Clearwater Planning Region forms the mouth of the Clearwater River as the forests and wetlands of the Upper and Middle Clearwater have transitioned to flat plains and cropland. Beau Gerlot Creek and Terrebonne Creek are also included in this planning region. The Lower Clearwater contains the cities of Plummer and most of Red Lake Falls, where the Clearwater joins the Red Lake River.

Lower Clearwater Goals

- Ditch Stabilization
- Streambank and Riparian Stabilization
- Sediment Reduction
- Phosphorus Reduction
- Stormwater Reduction
- Soil Health
- Drinking Water Protection
- Runoff reduction

Lower Clearwater Planning Region Projects and Practices

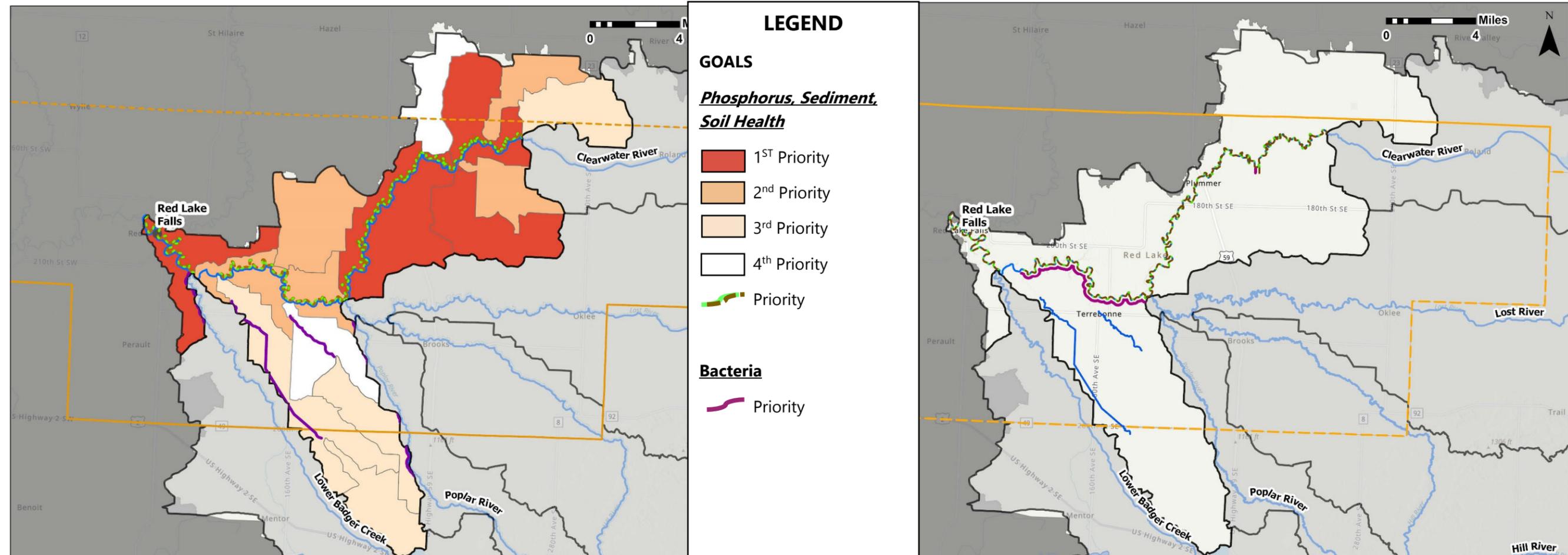
Action	Targeted Resources	10-Year Measurable Outcome	Measurable Goals										Timeline					Annual Estimated Cost	Total 10-Year Estimated Cost						
			Sediment	Phosphorus	Storage	Soil Health	Bacteria	Resource Protection	Drinking Water	Stormwater	Stream Stabilization	Ditch Stabilization	Responsibility/Partners (Bold = Lead)	2023-24	2025-26	2027-28	2029-30			2031-32					
Structural Agricultural Practices (sediment basins; grade stabilizations, side water inlets, filter strips, drainage water mgmt)	Clearwater River, Beau Gerlot Creek, Terrebonne Creek	1,271 tons sediment/yr 337 lbs phosphorus/yr 51 acre-feet storage	●	●	●	○					○	○	○	SWCDs, RLWD, NRCS, BWSR	●	●	●	●	●	\$61,383	\$613,831				
Non-structural Agricultural Practices (cover crops, reduced tillage, prescribed grazing, conservation crop rotation, perennial crops)	Clearwater River, Beau Gerlot Creek, Terrebonne Creek	1,670 acres 1,630 tons sediment/yr 539 lbs phosphorus/yr	●	●	○	●								SWCDs, NRCS, RLWD, BWSR		●	●	●	●	\$14,529	\$145,299				
Bacteria Reduction projects (Livestock exclusion and watering facility, waste pit closures)	Clearwater River	2 projects	○	○									●	○	○	○	SWCDs, MPCA, NRCS, BWSR			●	●	●	\$1,500	\$15,000	
Stream Channel Enhancement Projects (rock structures to stabilize channel bottoms, resloping)	See Figure 5.4	4.7 miles	○	○									○		●		RLWD, SWCDs, DNR, BWSR, MPCA (319 Grants), ACOE			●	●	●	●	\$23,500	\$235,000
Ditch System Enhancement Projects (rock and grade stabilization structures in ditch bottom)	See Figure 5.4, CD/23/17 Drainage Area	1.7 miles	○	○												●	RLWD, Counties, SWCDs			●	●	●	●	\$6,800	\$68,000
Land Retirement Programs (CRP, CREP)	Clearwater River, Beau Gerlot Creek, Terrebonne Creek	4,129 acres in 2022 (1,702 acres expire in 2025)	○	○	○	○	○						●	○			SWCDs, RLWD, NRCS, TNC, DNR, BWSR	●	●	●	●	●	\$29,729	\$297,288	
											Total Level 2 Funding Scenario (Current + WBIF)					\$107,712	\$1,077,130								
											Total Level 3 Funding (Partner Projects & Other Funding Sources)					\$29,729	\$297,288								

- Primary Goal this action will address
- Secondary Goal this action will address

Lower Clearwater Planning Region Targeting and Measuring

Restoration Targeting: Projects to reduce sediment and phosphorus and improve soil health were targeted based on where PTMAApp identified practices with the best sediment reductions and where there were impairments. The Water Quality Benefits Calculator below can be used to add up reductions to reach the goal in this planning region. Implementation is not limited to just these practices; they are just the most commonly implemented in the watershed.

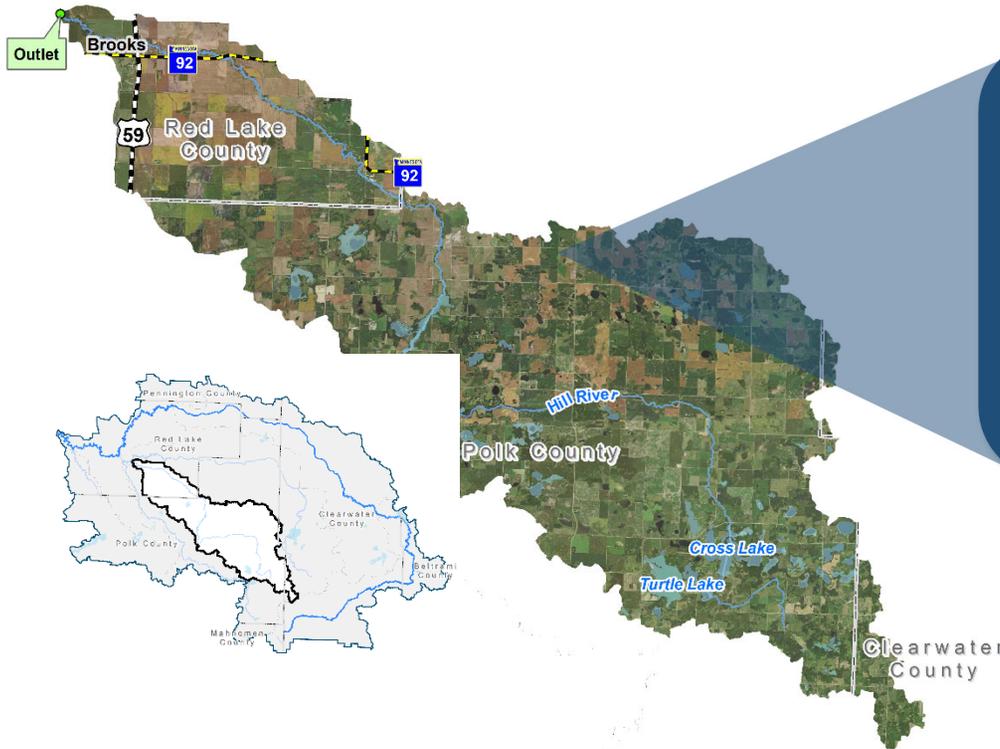
Protection Targeting: Projects to protect water quality were targeted based on nearly impaired reaches for phosphorus, sediment, or bacteria. There are not any forest protection priorities in this Planning Region but protecting existing prairie and wetland habitat is a priority.



Water Quality Benefits Calculator					
Category	Practice (NRCS Code)	Average Sediment (tons/yr)	Average Phosphorus (lbs/yr)	Average Nitrogen (lbs/yr)	Average Cost
<i>Nonstructural Practices (per acre)</i>	Cover Crops (340)	0.7	0.2	4.6	\$50
	No Till (329)	0.8	0.3	4.8	\$50
	Perennial Crops (327)	0.4	0.3	2.3	\$50
	Forage & Biomass planting (512)	6.7	0.3	2.3	\$50
	Prescribed Grazing (528)	0.4	0.1	0.5	\$20
<i>Structural Practices (per practice)</i>	Riparian Buffer (390) – per practice	38.5	21.4	453.7	\$13,200
	Grade Stabilization (410)	16.1	0.7	14.7	\$20,000
	Grassed Waterway (412)	34.3	3.2	60.8	\$19,200
	WASCOB (638)	29.4	9.1	126.0	\$9,000

Habitat Benefits	Water Quality Benefits
Prairie Pollinators Wetlands 	Clearwater River protection Wetland protection Water storage

Hill River Planning Region



At a Glance

- **13%** of plan area
- Communities include **Brooks**
- Counties include **Polk, Red Lake, Clearwater**

Medium Priority Restoration

Hill River Planning Region Overview

The Hill River Planning Region encompasses the entire Hill River from the headwaters to its mouth where it empties into the Lost River. The city of Brooks is located in this planning region. The Hill River watershed is mostly agricultural with some forested areas in the headwaters.

Hill River Goals

- Soil Health
- Streambank and Riparian Stabilization
- Runoff Reduction
- Bacteria Reduction
- Sediment Reduction
- Phosphorus Reduction
- High Value Resource Protection
- Drinking Water Protection

Hill River Planning Region Projects and Practices

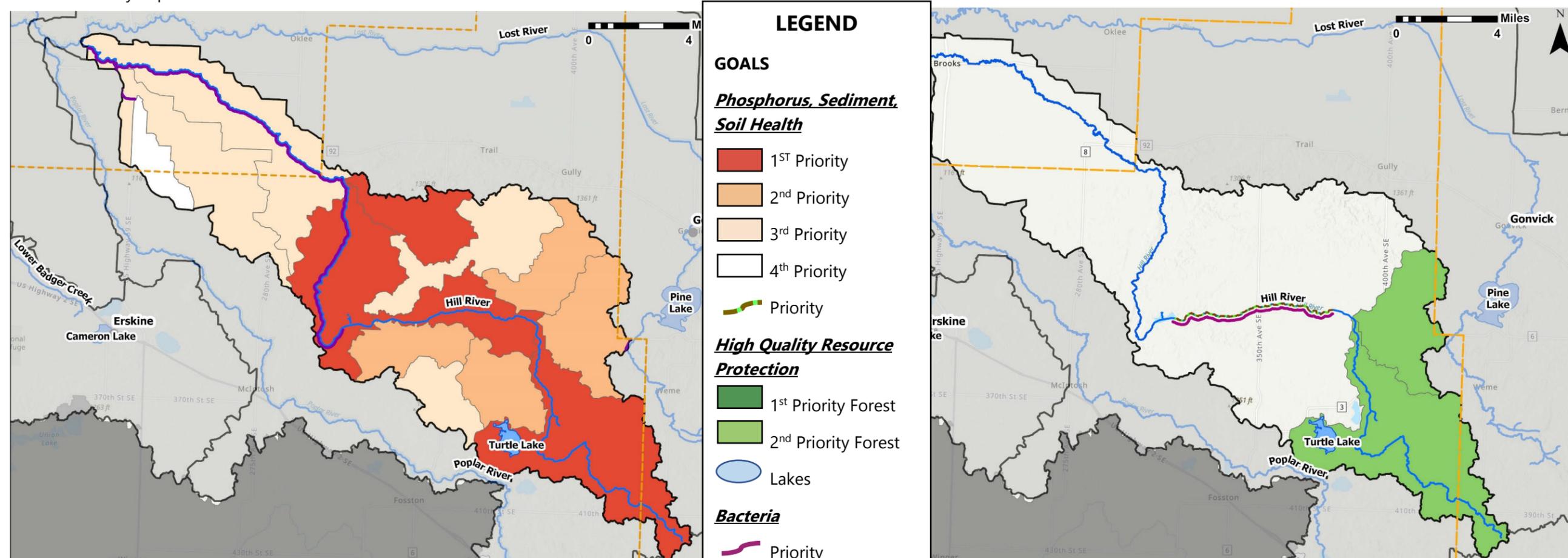
Action	Targeted Resources	10-Year Measurable Outcome	Measurable Goals										Timeline					Annual Estimated Cost	Total 10-Year Estimated Cost		
			Sediment	Phosphorus	Storage	Soil Health	Bacteria	Resource Protection	Drinking Water	Stormwater	Stream Stabilization	Ditch Stabilization	Responsibility (Bold = Lead)	2023-24	2025-26	2027-28	2029-30			2031-32	
Structural Agricultural Practices (sediment basins; grade stabilizations, side water inlets, filter strips, drainage water mgmt)	Hill River	1,424 tons sediment/yr 215 lbs phosphorus/yr 86 acre-feet storage	●	●	●	○					○	○	○	SWCDs, RLWD, NRCS, BWSR	●	●	●	●	●	\$43,029	\$430,294
Non-structural Agricultural Practices (cover crops, reduced tillage, prescribed grazing, conservation crop rotation, perennial crops)	Hill River	2,828 acres 3,247 tons sediment/yr 698 lbs phosphorus/yr	●	●	○	●								SWCDs, NRCS, RLWD, BWSR	●	●	●	●	●	\$74,665	\$747,245
Bacteria Reduction projects (Livestock exclusion and watering facility, waste pit closures)	Hill River	2 projects	○	○			●		○		○	○	SWCDs, MPCA, NRCS, BWSR			●	●	●	\$1,500	\$15,000	
Forest Protection Practices (SFIA or Easements)	Hill River	531 acres	○	○	○			●	○		○	○	SWCDs, DNR, BWSR	●	●	●	●	●	\$7,276	\$72,760	
Forest Stewardship Plans	Hill River	9 plans, 531 acres	○	○	○			●	○		○	○	SWCDs, DNR, BWSR, NRCS	●	●	●	●	●	\$602	\$6,018	
Lake Enhancement Projects (rain gardens, shoreline restoration)	Turtle Lake	17 lbs phosphorus/yr 1 lake project/2 yrs	○	●				○					SWCDs, DNR, BWSR		●	●	●	●	\$2,000	\$20,000	
Stream Channel Enhancement Projects (rock structures to stabilize channel bottoms, resloping)	See Figure 5.4.	0.6 miles	○	○				○			●		RLWD, SWCDs, DNR, BWSR, MPCA (319 Grants), ACOE		●	●	●	●	\$3,000	\$30,000	
Land Retirement Programs (CRP, CREP)	Hill River	6,079 acres in 2022 (724 acres expire in 2025)	○	○	○	○	○	●	○				SWCDs, RLWD, NRCS, TNC, DNR, BWSR	●	●	●	●	●	\$43,769	\$437,688	
Total Level 2 Funding Scenario (Current + WBIF)																			\$56,215	\$562,153	
Total Level 3 Funding (Partner Projects & Other Funding Sources)																			\$51,045	\$510,448	

- Primary Goal this action will address
- Secondary Goal this action will address

Hill River Planning Region Targeting and Measuring

Restoration Targeting: Projects to reduce sediment and phosphorus and improve soil health were targeted based on where PTMApp identified practices with the best sediment reductions and where there were impairments. The Water Quality Benefits Calculator below can be used to add up reductions to reach the goal in this planning region. Implementation is not limited to just these practices; they are just the most commonly implemented in the watershed.

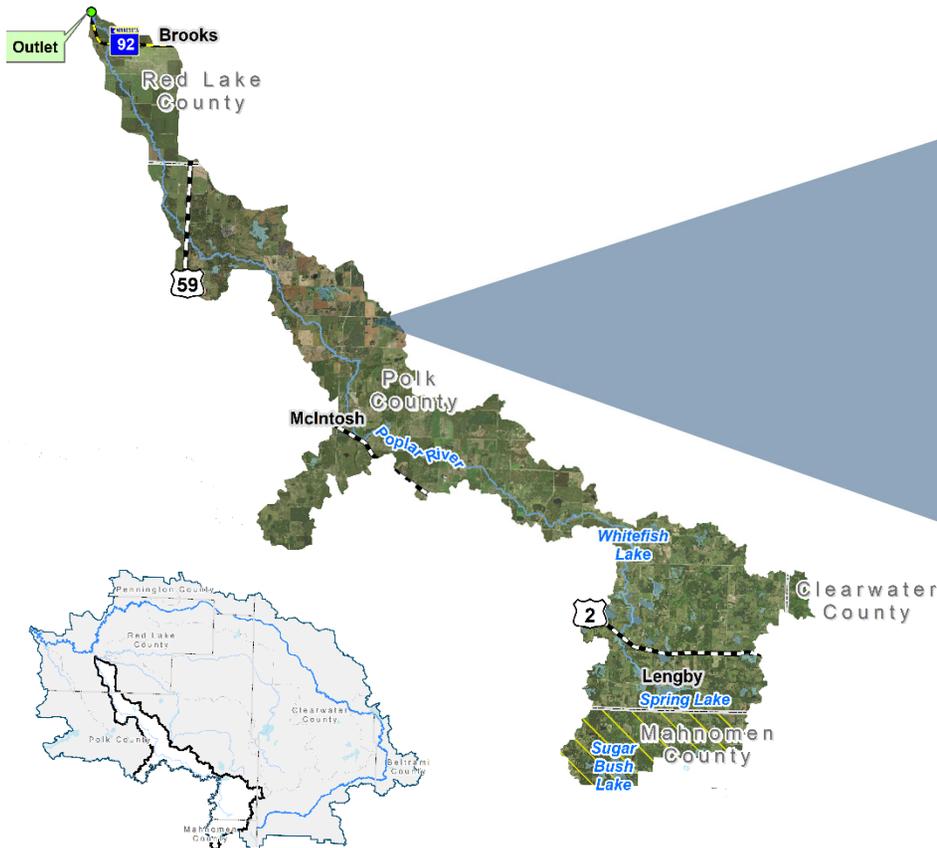
Protection Targeting: Projects to protect water quality were targeted based on nearly impaired reaches for phosphorus, sediment, or bacteria. Projects to protect habitat and outstanding water quality were targeted based on RAQ scoring (page 59). Benefits are noted below.



Water Quality Benefits Calculator		Average Sediment (tons/yr)	Average Phosphorus (lbs/yr)	Average Nitrogen (lbs/yr)	Average Cost
Nonstructural Practices (per acre)	Cover Crops (340)	1.0	0.2	4.6	\$50
	No Till (329)	1.2	0.3	4.8	\$50
	Perennial Crops (327)	0.7	0.3	2.3	\$50
	Forage & Biomass planting (512)	8.9	0.3	2.3	\$50
	Prescribed Grazing (528)	0.4	0.1	0.5	\$20
Riparian Buffer (390) – per practice	44.5	10.7	221.3	\$8,414	
Structural Practices (by practice)	Grade Stabilization (410)	23.6	1.2	25.0	\$20,000
	Grassed Waterway (412)	33.4	2.9	58.8	\$18,319
	WASCOB (638)	48.3	7.7	113.3	\$9,000

Habitat Benefits	Water Quality Benefits
Forest Waterfowl Migration Prairie Wetlands 	Turtle Lake Protection <ul style="list-style-type: none"> Migratory waterfowl feeding/resting area Priority waterfowl/shallow lake Hill River Protection

Poplar River Planning Region



At a Glance

- **9%** of plan area
- Communities include **Lengby, McIntosh**
- Counties include **Polk, Red Lake, Mahanomen, Clearwater**
- Tribal Lands include **White Earth Reservation**

Medium Priority Restoration

Poplar River Planning Region Overview

The Poplar River Planning Region contains the entirety of the Poplar River from the headwaters to the mouth, where it empties into the Lost River. The Poplar River Planning Region contains a mix of cropland, wetland, and forested areas at the headwaters with a prime opportunity for high value resource protection. The cities of Lengby and McIntosh are located here, with McIntosh straddling both Poplar River and Lower Badger Creek.

Poplar River Goals

- Soil Health
- Sediment Reduction
- Bacteria Reduction
- High Value Resource Protection
- Phosphorus Reduction
- Drinking Water Protection
- Stormwater Reduction
- Runoff Reduction

Poplar River Planning Region Projects and Practices

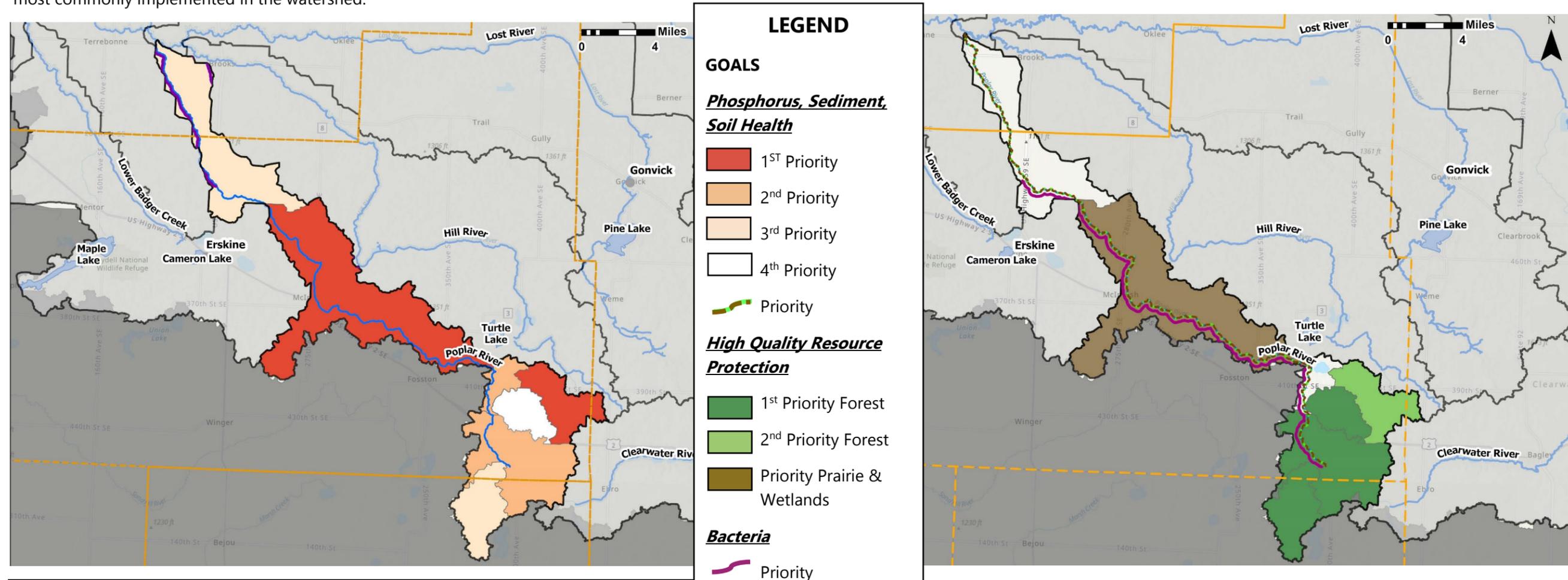
Action	Targeted Resources	10-Year Measurable Outcome	Measurable Goals										Timeline					Annual Estimated Cost	Total 10-Year Estimated Cost			
			Sediment	Phosphorus	Storage	Soil Health	Bacteria	Resource Protection	Drinking Water	Stormwater	Stream Stabilization	Ditch Stabilization	Responsibility/Partners (Bold = Lead)	2023-24	2025-26	2027-28	2029-30			2031-32		
Structural Agricultural Practices (sediment basins; grade stabilizations, side water inlets, filter strips, drainage water mgmt)	Poplar River	1,096 tons sediment/yr 180 lbs phosphorus/yr 60 acre-feet storage	●	●	●	○					○	○	○	SWCDs, RLWD, NRCS, BWSR	●	●	●	●	●	\$43,175	\$431,746	
Non-structural Agricultural Practices (cover crops, reduced tillage, prescribed grazing, conservation crop rotation, perennial crops)	Poplar River	1,984 acres 2,255 tons sediment/yr 501 lbs phosphorus/yr	●	●	○	●								SWCDs, NRCS, RLWD, BWSR		●	●	●	●	\$17,226	\$172,591	
Bacteria Reduction projects (Livestock exclusion and watering facility, waste pit closures)	Poplar River	2 projects	○	○			●		○		○	○	SWCDs, MPCA, NRCS, BWSR				●		\$1,500	\$15,000		
Forest Protection Practices (SFIA or Easements)	Poplar River	2,969 acres	○	○	○			●	○		○	○	SWCDs, DNR, BWSR, State of MN			●	●	●	\$71,617	\$716,172		
Forest Stewardship Plans	Poplar River	49 plans, 2969 acres	○	○	○			●	○		○	○	SWCDs, DNR, BWSR, NCRS			●	●	●	\$3,365	\$33,649		
Land Retirement Programs (CRP, CREP)	Poplar River, Shallow Lakes	2,479 acres in 2022 (588 acres expire in 2025)	○	○	○	○	○	●	○				SWCDs, RLWD, NRCS, TNC, DNR, BWSR	●	●	●	●	●	\$17,849	\$178,488		
																			Total Level 2 Funding Scenario (Current + WBIF)		\$65,266	\$652,986
																			Total Level 3 Funding (Partner Projects & Other Funding Sources)		\$89,466	\$894,660

- Primary Goal this action will address
- Secondary Goal this action will address

Poplar River Planning Region Targeting and Measuring

Restoration Targeting: Projects to reduce sediment and phosphorus and improve soil health were targeted based on where PTMApp identified practices with the best sediment reductions and where there were impairments. The Water Quality Benefits Calculator below can be used to add up reductions to reach the goal in this planning region. Implementation is not limited to just these practices; they are just the most commonly implemented in the watershed.

Protection Targeting: Projects to protect water quality were targeted based on nearly impaired reaches for phosphorus, sediment, or bacteria. Projects to protect habitat and outstanding water quality were targeted based on RAQ scoring (page 59). Benefits are noted below.

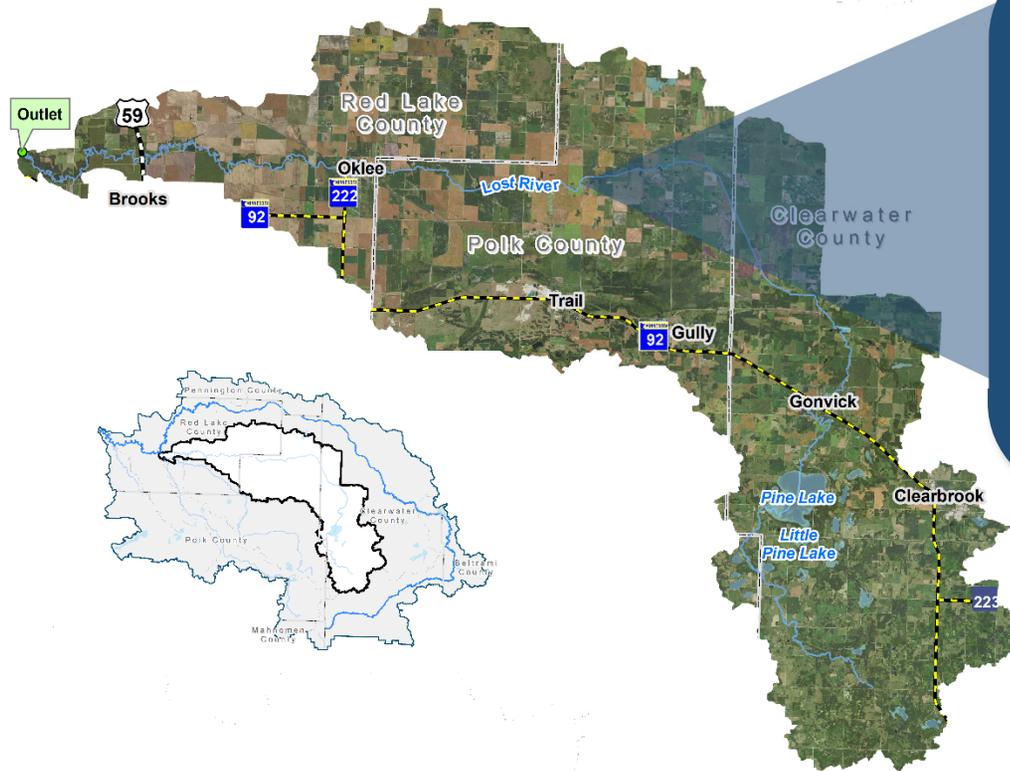


Category	Practice (NRCS Code)	Average Sediment (tons/yr)	Average Phosphorus (lbs/yr)	Average Nitrogen (lbs/yr)	Average Cost
Nonstructural Practices (per acre)	Cover Crops (340)	1.0	0.2	4.6	\$50
	No Till (329)	1.1	0.3	4.8	\$50
	Perennial Crops (327)	0.8	0.3	2.3	\$50
	Forage & Biomass planting (512)	7.4	0.3	2.3	\$50
	Prescribed Grazing (528)	0.4	0.1	0.5	\$20
Structural Practices (per practice)	Riparian Buffer (390) – per practice	28.1	16.6	334.6	\$12,500
	Grade Stabilization (410)	14.4	0.8	16.6	\$9,000
	Grassed Waterway (412)	23.8	2.0	40.9	\$34,229
	WASCOB (638)	43.3	7.5	107.5	\$20,000

Habitat Benefits	Water Quality Benefits
Trout Forest Prairie Pollinators Wetlands	Waterfowl Migration Priority Waterfowl/Shallow Lakes protection Lengby Creek Protection <ul style="list-style-type: none"> • Trout stream Poplar River protection Wetland protection

Lost River Planning Region

High Priority Restoration



Lost River Planning Region Overview

The Lost River Planning Region encompasses the entire Lost River, including the outlets of the Poplar and Hill rivers, where it then empties into the Clearwater River. This planning region is a mix of cropland, wetlands, lakes, and forested areas at the headwaters. Pine Lake, a popular recreational lake is located here. Clearbrook, Gonvick, Gully, Trail, and Oklee follow State Highway 92 from east to west.

At a Glance

- **22%** of plan area
- Communities include **Oklee, Trail, Gully, Gonvick, Clearbrook**
- Counties include **Clearwater, Beltrami, Mahnomen, Polk**

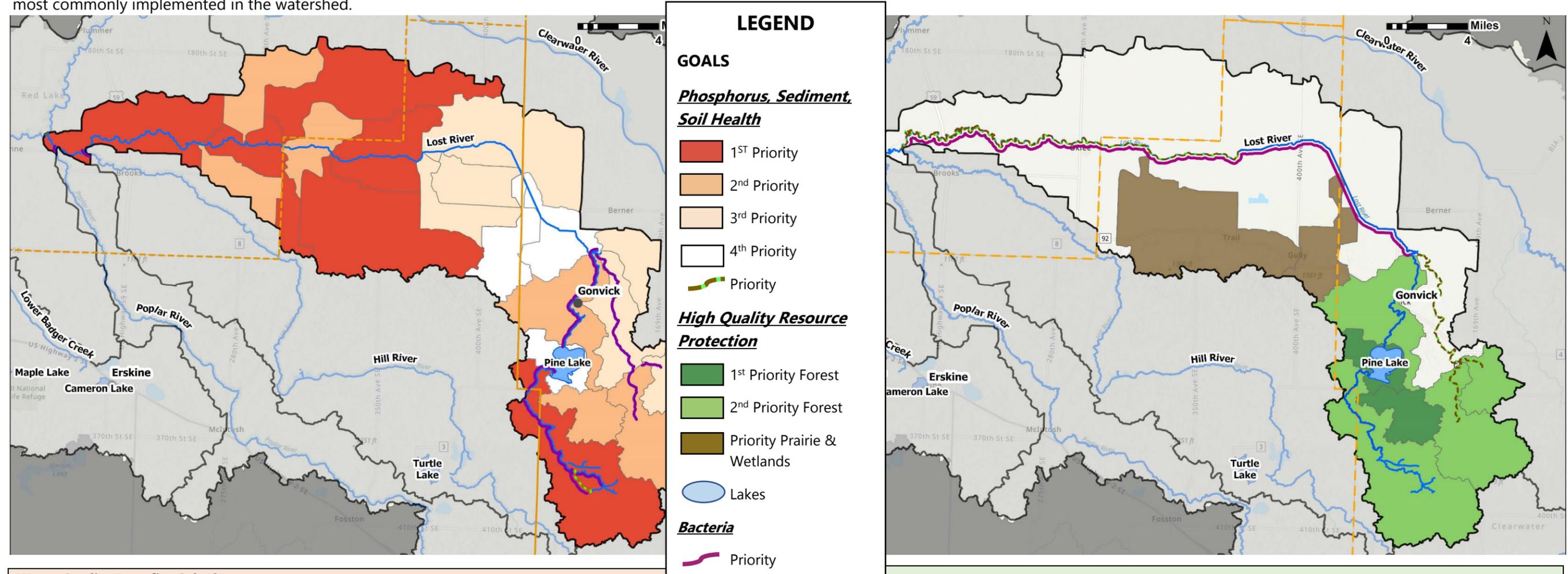
Lost River Goals

- Ditch Stabilization
- Soil Health
- Phosphorus Reduction
- Streambank and Riparian Stabilization
- High Value Resource Protection
- Runoff Reduction
- Bacteria Reduction
- Stormwater Reduction
- Drinking Water Protection
- Sediment Reduction

Lost River Planning Region Targeting and Measuring

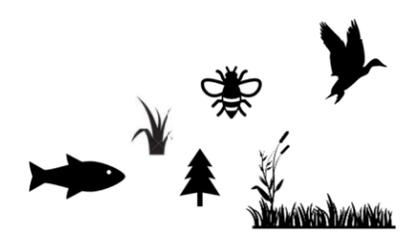
Restoration Targeting: Projects to reduce sediment and phosphorus and improve soil health were targeted based on where PTMApp identified practices with the best sediment reductions and where there were impairments. The Water Quality Benefits Calculator below can be used to add up reductions to reach the goal in this planning region. Implementation is not limited to just these practices; they are just the most commonly implemented in the watershed.

Protection Targeting: Projects to protect water quality were targeted based on nearly impaired reaches for phosphorus, sediment, or bacteria. Projects to protect habitat and outstanding water quality were targeted based on RAQ scoring (page 59). Benefits are noted below.



Water Quality Benefits Calculator					
Category	Practice (NRCS Code)	Average Sediment (tons/yr)	Average Phosphorus (lbs/yr)	Average Nitrogen (lbs/yr)	Average Cost
Nonstructural Practices (per acre)	Cover Crops (340)	0.7	0.2	4.6	\$50
	No Till (329)	0.8	0.3	4.8	\$50
	Perennial Crops (327)	0.5	0.3	2.3	\$50
	Forage & Biomass planting (512)	6.8	0.3	2.3	\$50
	Prescribed Grazing (528)	0.4	0.1	0.5	\$20
	Riparian Buffer (390) – per practice	43.2	12.9	267.2	\$13,220
Structural Practices (by practice)	Grade Stabilization (410)	21.2	0.9	18.0	\$20,000
	Grassed Waterway (412)	30.1	2.6	49.7	\$15,600
	WASCOB (638)	40.6	7.7	110.8	\$9,000

Habitat Benefits	Water Quality Benefits
Wild Rice Trout Forest Prairie Pollinators Wetlands	Lost River protection <ul style="list-style-type: none"> Trout Stream Pine Lake protection <ul style="list-style-type: none"> Wild Rice Lake Calcareous Fen protection Wetland protection



Lower Badger Creek Planning Region



At a Glance

- **9%** of plan area
- Communities include **Mentor, Erskine, McIntosh**
- Counties include **Polk, Red Lake**

Medium Priority Restoration

Lower Badger Creek Planning Region Overview

The Lower Badger Creek Planning Region contains the entirety of Lower Badger Creek, from its headwaters to the mouth where it outlets to the Lower Clearwater River. The cities of Mentor, Erskine, and McIntosh are located here, with McIntosh straddling both Poplar River and Lower Badger Creek. This planning region is largely agricultural, with some larger wetlands and lakes. Maple Lake is a popular recreational lake near Mentor.

Upper Clearwater Goals

- Ditch Stabilization
- Phosphorus Reduction
- Soil Health
- Bacteria Reduction
- High Value Resource Protection
- Drinking Water Protection
- Sediment Reduction
- Stormwater Reduction

Lower Badger Creek Planning Region Projects and Practices

Action	Targeted Resources	10-Year Measurable Outcome	Measurable Goals										Timeline					Annual Estimated Cost	Total 10-Year Estimated Cost		
			Sediment	Phosphorus	Storage	Soil Health	Bacteria	Resource Protection	Drinking Water	Stormwater	Stream Stabilization	Ditch Stabilization	Responsibility/Partners (Bold = Lead)	2023-24	2025-26	2027-28	2029-30			2031-32	
Structural Agricultural Practices (PTMApp) (sediment basins; grade stabilizations, side water inlets, filter strips, drainage water mgmt)	Lower Badger Creek Maple Lake Cameron Lake	1,344 tons sediment/yr 363 lbs phosphorus/yr 56 acre-feet storage	●	●	●	○					○	○	○	SWCDs, RLWD, NRCS, BWSR		●	●	●	●	\$77,569	\$775,685
Non-structural Agricultural Practices (cover crops, reduced tillage, prescribed grazing, conservation crop rotation, perennial crops)	Lower Badger Creek Maple Lake Cameron Lake	1,954 acres 2,736 tons sediment/yr 874 lbs phosphorus/yr	●	●	○	●								SWCDs, RLWD, NRCS, BWSR		●	●	●	●	\$16,965	\$170,024
Bacteria Reduction projects (Livestock exclusion and watering facility, waste pit closures)	Lower Badger Creek	2 projects	○	○			●		○		○	○	SWCDs, MPCA, NRCS, BWSR			●	●		\$1,500	\$15,000	
Forest Protection Practices (SFIA or Easements)	Lower Badger Creek Maple Lake Cameron Lake	220 acres	○	○	○			●	○		○	○	SWCDs, DNR, BWSR, State of MN			●	●	●	\$4,888	\$48,883	
Forest Stewardship Plans	Lower Badger Creek Maple Lake Cameron Lake	4 plans, 220 acres	○	○	○			●	○		○	○	SWCDs, DNR, BWSR, NRCS			●	●	●	\$249	\$2,493	
Lake Enhancement Projects (rain gardens, shoreline restoration)	Maple Lake Cameron Lake	217 lbs phosphorus/yr 19 lbs phosphorus/yr 1 lake project/yr	○	●					○				SWCDs, DNR, BWSR	●	●	●	●	●	\$4,000	\$40,000	
Ditch System Enhancement Projects (rock and grade stabilization structures in ditch bottom)	See Figure 5.4	0.4 miles	○	○								●	RLWD, Counties, SWCDs			●	●	●	\$1,600	\$16,000	
Land Retirement Programs (CRP, CREP)	Lower Badger Creek Maple Lake Cameron Lake	2,875 acres (218 acres expire in 2025)	○	○	○	○	○	○	●	○	○	○	SWCDs, RLWD, NRCS, TNC, DNR, BWSR	●	●	●	●	●	\$20,700	\$207,000	
												Total Level 2 Funding Scenario (Current + WBIF)					\$101,883	\$1,019,202			
												Total Level 3 Funding (Partner Projects & Other Funding Sources)					\$25,588	\$255,883			

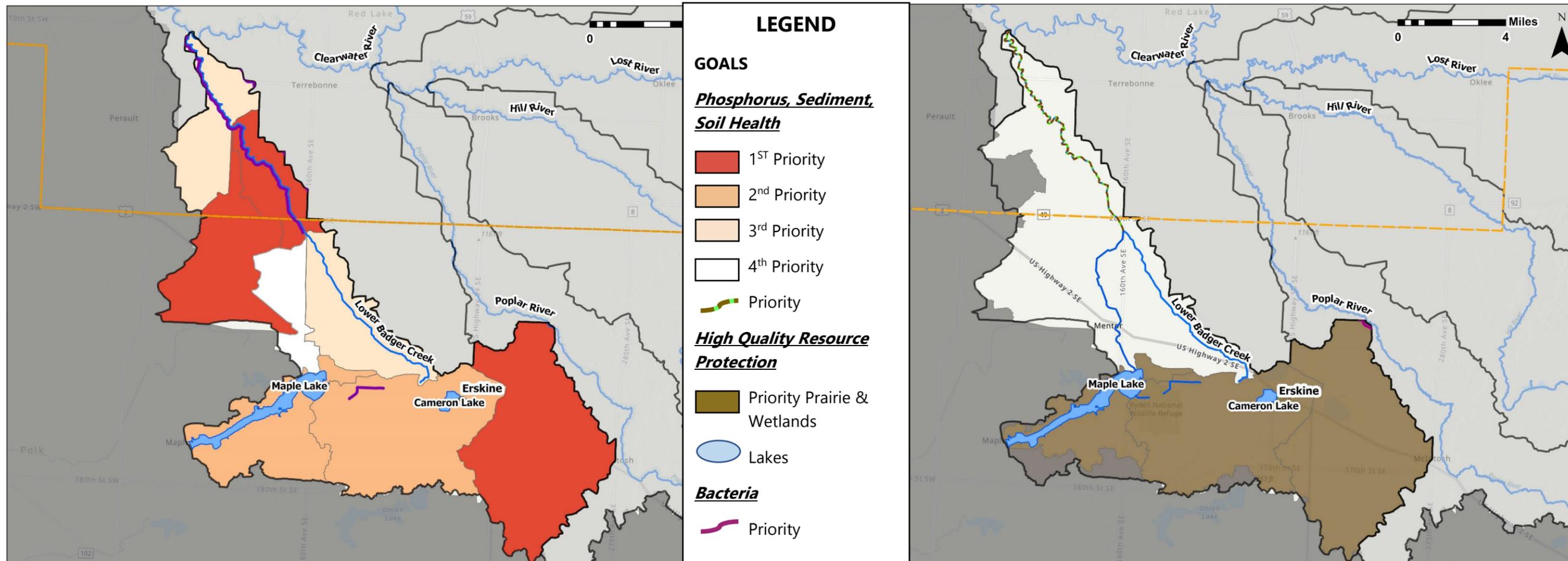
● Primary Goal this action will address

○ Secondary Goal this action will address

Lower Badger Creek Planning Region Targeting and Measuring

Restoration Targeting: Projects to reduce sediment and phosphorus and improve soil health were targeted based on where PTMApp identified practices with the best sediment reductions and where there were impairments. The Water Quality Benefits Calculator below can be used to add up reductions to reach the goal in this planning region. Implementation is not limited to just these practices; they are just the most commonly implemented in the watershed.

Protection Targeting: Projects to protect water quality were targeted based on nearly impaired reaches for phosphorus, sediment, or bacteria. Projects to protect habitat and outstanding water quality were targeted based on RAQ scoring (page 59). Benefits are noted below.



Water Quality Benefits Calculator		Average Sediment (tons/yr)	Average Phosphorus (lbs/yr)	Average Nitrogen (lbs/yr)	Average Cost
Category	Practice (NRCS Code)				
Nonstructural Practices (per acre)	Cover Crops (340)	0.7	0.2	4.6	\$50
	No Till (329)	0.8	0.3	4.8	\$50
	Perennial Crops (327)	0.4	0.3	2.3	\$50
	Forage & Biomass planting (512)	7.3	0.3	2.3	\$50
	Prescribed Grazing (528)	0.4	0.1	0.5	\$20
	Riparian Buffer (390) – per practice	40.3	21.1	421.0	\$23,400
Structural Practices (per practice)	Grade Stabilization (410)	13.8	1.0	18.7	\$20,000
	Grassed Waterway (412)	18.6	3.1	55.6	\$17,600
	WASCOB (638)	30.8	8.8	123.8	\$9,000

Habitat Benefits	Water Quality Benefits
Waterfowl Migration Prairie Pollinators Wetlands	Maple Lake protection Cameron Lake protection Priority Waterfowl/Shallow Lake protection Wetland protection

Capital Improvement Projects



The Capital Improvement Projects Action Table summarizes actions for the construction, repair, retrofit, or increased utility or function of physical facilities, infrastructure, or environmental features. Capital Improvements require external funding. These actions will be implemented watershed-wide, as project footprints and benefits span planning region boundaries. They will be implemented through the Capital Improvement Projects Implementation Program, described further in Section 6. The Planning Partners intend to use approximately 30% of the watershed-based implementation funds (WBIF) (~\$146,000/year) to support implementation of these projects.

Action	Targeted Resources	10-Year Measurable Outcome	Measurable Goals										Timeline					Estimated Total 10-Year Cost	
			Sediment	Phosphorus	Storage	Soil Health	Bacteria	Resource Protection	Drinking Water	Stormwater	Stream Stabilization	Ditch Stabilization	Responsibility (Bold = Lead)	2023-24	2025-26	2027-28	2029-30		2031-32
Stream Restoration and Channel/Bank Stabilization	See Figure 5.4.	12.5 miles stabilized	●	●	●						●		RLWD, SWCDs, DNR, BWSR, ACOE, MPCA	●	●	●	●	●	~ 12,500,000
Stormwater Control Projects	Clear Brook (Gonvick) Cameron Lake (Erskine) Clearwater River (Red Lake Falls)	3 projects	○	○	○					●			Cities, RLWD, SWCDs, MPCA			●	●	●	NA
Water Retention Projects	See Figure 4.7, Section 4. (storage map)	9,060 acre-ft	○	○	●				○				RLWD, RRWMB			●	●	●	~ 18,000,000
Dam modification for fish passage	Clearwater Lake outlet, Sooline Trestle @ Upper Clearwater trout reach	2 projects	○					○			●		DNR, RLWD, SWCDs				●	●	~ \$1,000,000
Ditch Stabilization	JCD 64 outlet, JD 31, JCD 3, JD 2 Br A, JD 2 Br 5, Winsor Hangaard, JD 100, JD 101, PCD 200	13.5 miles stabilized	●	●								●	RLWD, Counties, MPCA	●	●	●	●	●	\$540,000
Wetland Restoration for Flood Damage Reduction	See Figure 4.7, Section 4. (storage map)	Included in water retention projects goal	○	○	●				○				RLWD, DNR, ACOE, USFWS		●	●	●	●	<i>Included in water retention projects cost</i>
Small community wastewater systems	Explore opportunities for communities.	Explore 1 system	○	●				●	○	○			Cities, MPCA, Counties				●	●	NA

Potential Ditch and Stream Stabilization Project Locations

The ditch and stream stabilization projects in the Projects and Practices table and the Capital Improvements Table are based on ground-truthing done by the Red Lake Watershed District shown on this map (Figure 5.4). Project opportunities include grade stabilizations, bank stabilizations, side water inlets (SWI), and buffer enhancement.

Disclaimer

The erosion problems shown in this map were identified through the hydroconditioning groundtruthing effort, WRAPS pollutant source investigation, the Clearwater River Watershed Fluvial Geomorphology Study, examination of aerial photos, and ditch inspections. This is not an all-inclusive map, as it only represents areas that have been explored by RLWD and Pennington SWCD staff. Other than a scoring system used for streambank erosion during the geomorphology study, the identification of multiple stabilization needs in some locations, there has not been any prioritization applied to the specific locations identified in this map. Prioritization of work will primarily be based on the priority subwatersheds that are identified in the Targeted Implementation Schedule.

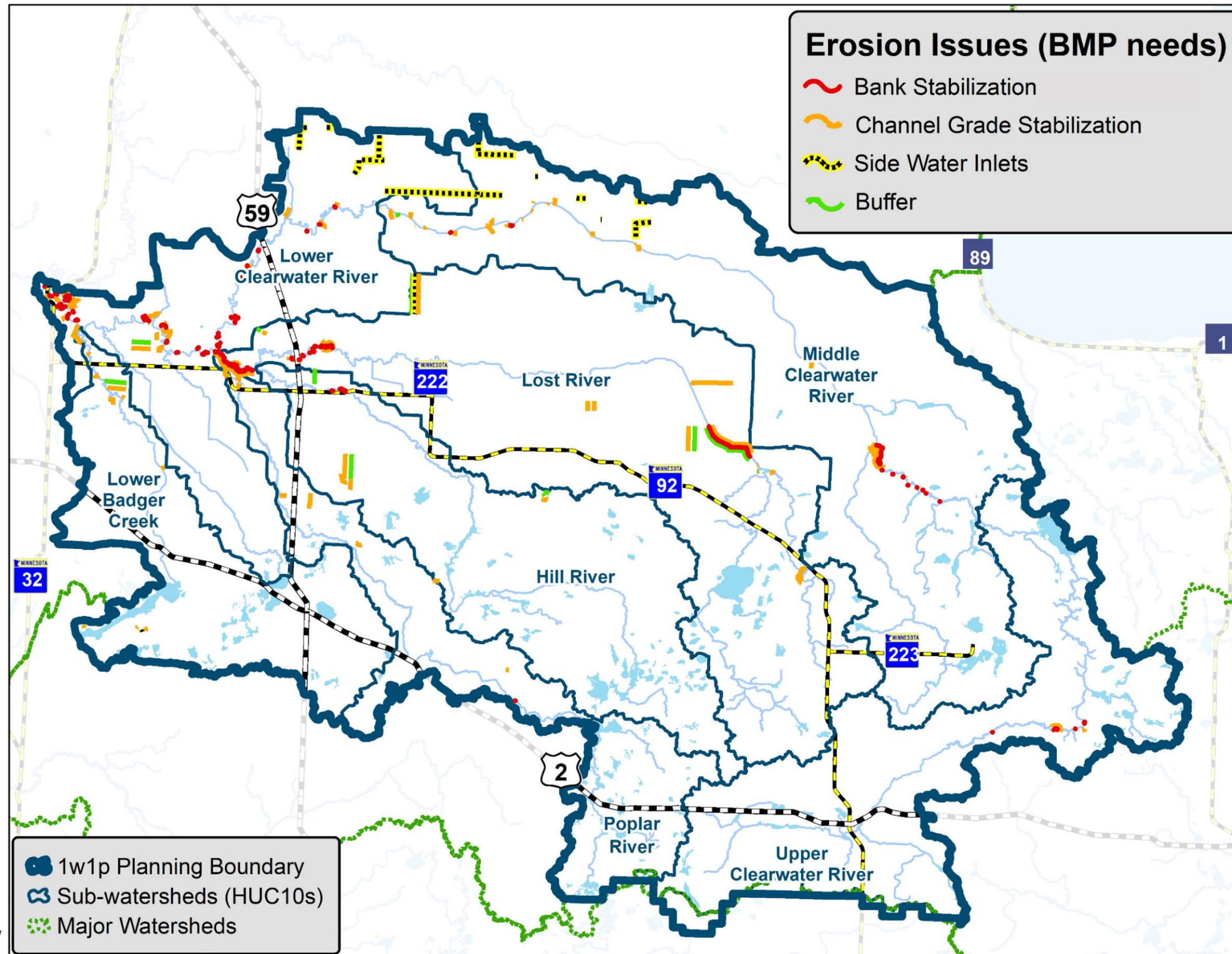


Figure 5.4. Potential stream and ditch project locations (source: RLWD ground-truthing, Pennington SWCD prioritization).

Watershed Wide Actions

The Watershed-Wide Action Table summarizes actions that will be implemented throughout the watershed as current programs (Regulatory and Monitoring) and as opportunities arise (sealing abandoned wells, replacing failing septic systems).

Action	Program	Targeted Resources	10-Year Measurable Outcome	Measurable Goals										Timeline					Estimated Annual Cost	Estimated Total 10-Year Cost				
				Sediment	Phosphorus	Storage	Soil Health	Bacteria	Resource Protection	Drinking Water	Stormwater	Stream Stabilization	Ditch Stabilization	Responsibility/Partners (Bold = Lead)	2023-24	2025-26	2027-28	2029-30			2031-32			
Land Use and Regulatory Program (See Appendix G)		Watershed-Wide	Continue current program	●	●	●	●	○	●	●	●	○	○	Counties, RLWD, SWCDs	●	●	●	●	●	\$75,682	\$756,820			
Monitoring Program (See Section 7)		Watershed-Wide	Continue current program	○	○			○		○				MPCA, RLWD, SWCDs, IWI, DNR, MDH	●	●	●	●		\$140,192 Level 3	\$140,192 Level 3			
Replace Failing Septic Systems		Watershed-Wide	Continue current program		○			○		○				Counties, SWCDs, MPCA	●	●	●	●	●	Level 3	Level 3			
Seal Abandoned Wells		Watershed-Wide	10 wells/year							●				SWCDs, MDH	●	●	●	●	●	\$6,000	\$60,000			
Improve connectivity with properly sized and placed culverts on road crossings		Watershed-Wide	10 culverts	○		○								Counties, SWCDs, RLWD, Townships			●	●	●	Level 3	Level 3			
Acquisition of riparian corridors		Watershed-Wide	As opportunities arise	○	○			○	●			○		RLWD, BWSR, SWCDs, Lessard Sams			●	●	●	Level 3	Level 3			
Windbreaks, shelterbelts, and tree planting		Watershed-Wide	As opportunities arise				○		○					SWCDs, NRCS, BWSR	●	●	●	●	●	Included in Soil Health, non-structural ag practices				
Noxious weed management		Watershed-Wide	Continue local program				○		○					SWCDs, Counties	●	●	●	●	●	Included in Regulatory Program				
AIS management and prevention		Lakes and Streams	Continue county program						○					Counties, SWCDs, RLWD, DNR, Lake Associations	●	●	●	●	●	\$70,648	\$706,480			
Protect DWSMAs – Integrate plans, participate in planning		Drinking Water	Continue current program							●				Cities, SWCDs, MDH, SWCDs			●	●	●	Level 3	Level 3			
Total Level 2 Funding Scenario (Current + WBIF)																					\$95,701	\$957,012		
Total Level 3 Funding (Partner Projects & Other Funding Sources)																							\$70,648	\$706,480



Outreach Program

Action	Planning Region	10-Year Measurable Outcome	Measurable Goals											Timeline						
			Sediment	Phosphorus	Storage	Soil Health	Bacteria	Resource Protection	Drinking Water	Stormwater	Stream Stabilization	Ditch Stabilization	Responsibility (Bold = Lead)	2023-24	2025-26	2027-28	2029-30	2031-32		
Develop and implement a coordinated education and outreach plan among watershed partners to promote consistent strategies, materials, social media and messaging.	Watershed-wide	1 program	○	○	○	○	○	○	○	○	○	○	○	○	SWCDs, RLWD, NRCS, DNR, BWSR	●				
Continue general education and outreach activities by jurisdictional area.	Watershed-wide	Annual Implementation	○	○	○	○	○	○	○	○	○	○	○	○	SWCDs, RLWD, NRCS	●	●	●	●	●
Participate in existing environmental education programs for youth such as the Envirothon, county fairs, conservation days, ag-in-the-classroom, Trout in the Classroom, Northwest Minnesota Soil Contest, Water Fest, River Watch, River of Dreams, sponsor conservation camps for kids, poster contests, science fair judging, Arbor Day tree planting, FFA, 4-H.	Watershed-wide	Annual Program Implementation	○	○	○	○	○	○	○	○	○	○	○	SWCDs, Extension, NRCS, Trout Unlimited, International Water Institute, RLWD	●	●	●	●	●	
Promote proper management of wells, i.e., setback distances, construction standards, private well inventory, and education on irrigation interference.	Watershed-wide	Annual Program Implementation							○					SWCDs, Counties, RLWD		●	●	●	●	
Promote and showcase soil health demonstration sites using conservation farming practices and outreach workshops, project tours, (tillage management, cover crops, etc.).	Watershed-wide	1 forum/year	○	○		○								SWCDs, MDA, Extension, NRCS		●	●	●	●	
Conduct outreach to the general public and local elected officials on environmental and urban contaminants, including salt, fertilizers, pesticides, household waste, prescription drugs, and legacy contaminants (e.g., PFAS and PCBs), and promote rain barrels and water conservation education.	Watershed-wide	Complete watershed outreach strategy							○	○				Counties, Cities, SWCDs, RLWD, MDH		●	●	●	●	
Develop and implement a lake outreach program to better understand issues and inform the public on management measures to protect or improve lake water quality.	Watershed-wide	1 program		○					○					SWCDs, RLWD, Lake Associations, DNR, MPCA, Extension		●	●	●	●	
Conduct arsenic and nitrate testing clinics and provide testing kits for private drinking water. Provide well testing kits at LGU offices year-round.	Watershed-wide	1 clinic/year							○					SWCDs, MDH	●	●	●	●	●	
Outreach to landowners with expiring CRP contracts	Watershed-wide	Maintain current CRP acreage	○	○		○		○						SWCDs, NRCS, FSA		●	●	●	●	
Education for developers, realtors, planners, mayors, county boards and other decision makers about the effects that development and land use have upon water quality.	Watershed-wide	Complete watershed outreach strategy	○	○		○	○	○	○					Counties, SWCDs, Cities, RLWD		●	●	●	●	
Conduct Aquatic Invasive Species outreach and activities following county AIS Plans.	Watershed-wide	Continue county program							○					Counties, SWCDs	●	●	●	●	●	
Increase participation in the MN Agricultural Water Quality Certification Program (MAWQCP).	Watershed-wide	1 producer/year	○	○	○	○	○		○					MDA, SWCDs	●	●	●	●	●	
Complete the Geologic Atlas project in all counties in the watershed.	Watershed-wide	Completed data set							○					U of MN, SWCDs			●	●	●	
Total Level 2 Funding Scenario (Current + WBIF)															Annual Cost		Total 10-Year Cost			
															\$64,662		\$646,620			
Total Level 3 Funding (Partner Projects & Other Funding Sources)															NA		NA			

Estimated Plan Costs

Below are the estimated costs for implementing actions in the plan. Costs are also included for the operations and maintenance of natural and artificial waterways at or near their current levels, for regulatory action, and for plan administration and administrative costs related to implementation. This plan assumes local, state, and/or federal fiscal support remains unchanged.

Implementation Program*	Level 1 Baseline		Level 2 Baseline + WBIF		Level 3 Other/Partner Funding	
	Annual	10-Year Total	Annual	10-Year Total	Annual	10-Year Total
Capital Projects	\$413,759	\$4,137,590	\$504,000	\$5,040,000	\$3,150,000	\$31,500,000
Data Collection & Monitoring	\$140,192	\$1,401,920	\$140,000	\$1,400,000		
Education & Outreach	\$40,312	\$403,120	\$64,600	\$646,000		
Projects & Practices	\$256,781	\$2,567,810	\$703,700	\$7,037,000	\$600,046	\$6,000,460
Regulatory	\$75,682	\$756,820	\$76,000	\$760,000		
Operations and Maintenance	\$55,758	\$557,580	\$56,000	\$560,000		
Total	\$926,726	\$9,267,260	\$1,544,300	\$15,443,000	\$3,750,046	\$37,500,460

Operating level after this plan is adopted and WBIF is received.

Funding notes:

- Project development is included in the Capital Projects and Projects and Practices program costs and is assumed to be 5% of the practice cost.
- Technical assistance is included in the Capital Projects and Projects and Practices program costs and is assumed to be 20% of the practice cost.
- Plan Administration is estimated to be 10% of the watershed-based funding (~ \$48,736 annually).



Plan Implementation Programs



SECTION 6. IMPLEMENTATION PROGRAMS



Credit: Matt Fischer

Implementation programs are the funding mechanism to implement actions in the targeted implementation schedule. This plan establishes common implementation programs within the plan area and describes them conceptually in this section. There are five main programs: Projects and Practices, Capital Improvements, Regulatory, Data Collection and Monitoring, and Outreach and Communication (Figure 6.1).



Figure 6.1. Implementation programs for the CR1W1P.

Projects and Practices Implementation Program

Dollars used to implement projects and practices on the landscape are funded by the Projects and Practices Implementation Program. This implementation is broken into a variety of subprograms, as shown on the next few pages. These programs are typically administered by the SWCDs in the watershed and apply to most of the plan goals.



Applicable Plan Goals (Section 4):

- Ditch Stabilization
- Bacteria Reduction
- Sediment Reduction
- Streambank and Riparian Stabilization
- Drinking Water Protection
- Phosphorus Reduction
- Runoff Reduction
- Soil Health
- High Value Resource Protection
- Stormwater Reduction



Figure 6.2. Clearwater River and wild rice. Credit: RLWD.

Cost Share Programs

Cost-share programs or projects are those where the cost of installing a project is shared with the landowner(s). Implementing soil health practices such as cover crops and no till, or forest enhancement are applicable examples that meet plan goals.

Cost-share programs can also be used for structural practices. Implementing fencing and water sources for grazing cattle away from streams, water and sediment control basins, grade stabilizations, shoreline restorations on lakeshore, and well sealing are applicable examples that meet the goals of this plan.

Land Protection

Conservation Easements

Conservation easements are voluntary legal agreements between a landowner and governmental or nonprofit organization, whereby land use and development are limited on a property while conserving natural values that reside upon that landscape. The easements are individually tailored agreements with an organization such as the BWSR, DNR, Minnesota Land Trust, or the Nature Conservancy.

Reinvest in Minnesota (RIM) Wild Rice Conservation Easement Program

The RIM Wild Rice Conservation Easement Program protects wild rice lakes through permanent conservation easements on privately owned lands in Minnesota's Northern Forest region. This program is available in Beltrami and Clearwater counties.

Reinvest in Minnesota (RIM) Grassland Reserve Easement Program

RIM Grassland Reserve easements protect current grasslands or buffer native prairie within wildlife habitat complexes through permanent conservation easements on privately owned lands. This project aims to enroll and protect remnant prairie grasslands by focusing on Minnesota Prairie Plan-identified landscapes. This program has been popular in the Clearwater River Watershed.

Land Acquisition

For areas with unique and important resources that meet state goals, the DNR, USFWS, counties, cities, townships, and other entities may purchase and manage the land. Examples include Aquatic Management Areas (AMA) that are used for fish spawning habitat and Wildlife Management Areas (WMA) that are used for small game hunting and waterfowl migration.

Land Retirement Programs

Conservation Reserve Program (CRP)

CRP is administered by the Farm Service Agency (FSA) of the USDA. It is a voluntary program that contracts with agricultural producers so that environmentally sensitive agricultural land is not farmed or ranched, but instead devoted to conservation benefits. CRP participants establish long-term, resource-conserving plant species to control soil erosion, improve water quality and develop wildlife habitat. In return, FSA provides participants with rental payments and cost-share assistance. Contract duration is 10-15 years.

Wetlands Reserve Program (WRP)

The Wetlands Reserve Program (WRP) is a voluntary program offering landowners the opportunity to protect, restore, and enhance wetlands on their property. The NRCS provides technical and financial support to help landowners with their wetland restoration efforts. This program offers landowners an opportunity to establish long-term conservation and wildlife practices and protection.

Lands eligible for WRP are wetlands farmed under natural conditions; farmed wetlands; prior converted cropland; farmed wetland pasture; certain lands that have the potential to become a wetland as a result of flooding; rangeland, pasture, or forest production lands where the hydrology has been significantly degraded and can be restored; riparian areas which link protected wetlands; lands adjacent to protected wetlands that contribute significantly to wetland functions and values; and wetlands previously restored under a local, State, or Federal Program that need long-term protection.

Low-Interest Loans

Low-Interest Loans (AgBMP Loan Program) may be made available for septic system replacement, small community wastewater treatment systems, agricultural best management practices, and other projects that meet eligibility criteria for funding.

Private Forest Management

There are many different options for managing forests on privately-owned lands. These can range from permanent protection to management plans described in this section.

Forest Stewardship Plans

Forest owners can manage their woods through Woodland Stewardship Plans in coordination with the Minnesota DNR's Forest Stewardship Program. Forest goals can be developed in coordination with trained foresters to create wildlife habitat, increase natural beauty, enhance environmental benefits, or harvest timber. Plans must be prepared by a DNR-approved plan writer, which may include SWCD staff and private foresters.

Forest 2C Designation

Landowners with DNR-registered Woodland Stewardship Plans are eligible for 2C Classification, which is a state program that provides a reduced tax rate to forested property of 20 acres or more. This is an annual program.

The Sustainable Forest Incentive Act (SFIA)

The SFIA provides annual incentive payments for the landowner recording a covenant taking away some of the rights of the land (development and farming, for example). Private landowners can receive a payment for each acre of qualifying forest land they enroll in SFIA. In return, they follow the covenant for a set period of time: either 8, 20, or 50 years. Data on current enrollees shows that landowners who start with an 8-year covenant commonly move up to a 50-year covenant (DNR).

Operations and Maintenance

After projects are installed, regular on-site inspections and maintenance to ensure the project’s continued function and success is required by the BWSR Grants Administration Manual (GAM), for projects funded through BWSR grants. These details, along with records including notes and photos should be included with each project’s Operations and Maintenance Plan. BWSR’s recommended inspection plans, according to the GAM, include the following:

Conservation practice with a minimum effective life of 10 years:

- The ends of Years 1, 3, and 9 after the certified completion are recommended.

Capital Improvement Implementation Program

A capital improvement project is defined as a major non-recurring expenditure for the construction, repair, retrofit, or increased utility or function of physical facilities, infrastructure, or environmental features. Capital improvements are beyond the “normal” financial means of the Partnership and therefore require external funding.



Applicable Plan Goals (Section 4):

- Sediment Reduction
- Phosphorus Reduction
- Runoff Reduction
- Ditch Stabilization
- Streambank and Riparian Stabilization
- Stormwater Reduction

Section 5 shows general proposed capital improvement project types within the plan area, and Table 6.1 shows a list of possible projects. Additional discussions are needed among plan participants to develop the specific process for implementing capital improvements with base funding. Specifically, members of the Policy Committee or the Clearwater River Watershed Planning Work Group’s individual and representative Boards are expected to discuss the means and methods for funding new capital improvements with potential funding partners before an implementation timeline can be established.

Capital improvement projects completed through this plan will be operated and maintained by the owner of the project for the lifespan of the project as specified in **Section 5**.

As highlighted throughout this plan, public drainage systems are prevalent throughout much of the plan area. As such, planning partners will engage drainage authorities about plan efforts and goals. Drainage authorities will be highly encouraged to coordinate and be involved during implementation of the targeted implementation schedule to make progress towards measurable goals, including sediment delivery, private and public flood risk reduction, and ditch stability. Based on this two-way engagement, drainage authorities could access implementation funds to

adopt drainage actions in the targeted implementation schedule (Section 5) during 103D and 103E processes and procedures when the opportunity arises within the planning area.

Table 6.1. Capital Improvement Project ideas developed by the Clearwater River Watershed Planning Work Group.

Capital Improvement Project	Planning Region	Description	Lead Entity
Judicial Ditch 2 outlet stabilization	Middle Clearwater River	Stabilize the outlet of JD2 where it enters the Clearwater River near the CSAH 5 crossing	RLWD
Grade Stabilization in the Clearwater River	Middle Clearwater River	Continue to stabilize a headcutting portion of the Clearwater River along the transition from the natural channel to channelization. Begin downstream of previous work done for the "Greenwood 27" project and construct a series of additional grade stabilization structures (cross-vein rock weirs) to step-down and stabilize the gradient of the channel.	RLWD
Dam retrofit and fish passage at the Spike Lake outlet	Upper Clearwater River	The outlet of Spike Lake is an old dam. Look into the possibility of retrofitting the dam for safety and/or fish passage	DNR
Clearwater River Trout Stream fish passage restoration	Upper Clearwater River	The culvert under the old railroad trestle along Nelson Dam Rd NW is often perched. This limits the success of DNR trout stocking efforts. Local residents have noted that entrapment of fish in the plunge pool of the culvert makes them overly susceptible to harvest. The project will require a large-scale excavation that may not be feasible with local funds, but can be accomplished with state grant funding, and replacement/ rerouting of an ATV trail.	DNR
Lost River Restoration	Lost River	Stabilize or restore a section of the Lost River (RLWD Project 4 legal ditch) between CSAH 7 and 500 th Street.	RLWD and Clearwater SWCD
Poplar River Diversion Wetland Restoration	Lower Badger Creek	Restore wetlands along the Poplar River Diversion channel between the Poplar River and Badger Lake. If possible, incorporate FDR benefits.	TBD
Flood Damage Reduction Projects	Hill River, Lower Badger Creek, Lost River, Poplar River	As opportunities arise. Some wetland restoration opportunities are listed in Table 3-13 of the WRAPS.	TBD
Stormwater treatment project – City of Erskine	Lower Badger Creek	Reduce nutrient loading to Cameron Lake by treating stormwater runoff at its source or before it enters the lake.	East Polk SWCD, RLWD, City of Erskine

Capital Improvement Project	Planning Region	Description	Lead Entity
Stormwater treatment project – City of Clearbrook	Lost River	Reduce pollutant runoff to Clear Brook. Work with landowners to construct another of the treatment ponds that were identified by the Clearbrook Stormwater Study	TBD
Stormwater treatment project – City of Red Lake Falls	Lower Clearwater River	Reduce sediment loading to the Red Lake River in Red Lake Falls by treating stormwater upstream of stormwater outlets.	TBD
Ditch outlet stabilization	Lost River	Stabilization of ditch outlets along the Lost River	TBD
Ditch outlet stabilization	Middle Clearwater River, Lower Clearwater River	Stabilization of tributary and ditch outlets along the Clearwater River	TBD
Ditch outlet stabilization	Lower Badger Creek	JCD 64 outlet stabilization	TBD
Hill River Restoration	Hill River	Restore a meandering channel along the channelized portion of the river near CSAH 92	TBD
Stream restoration	Hill River	Stream and wetland restoration along the CD 68 portion of the Hill River	TBD
Lost River Stabilization	Lost River	Stabilize the lower portion of the Lost River, neat CR 118	TBD
Anderson Lake restoration and FDR project	Lost River	Create flood storage at Anderson Lake while also creating water quality and habitat improvements	TBD
Beau Gerlot Creek Channel Restoration	Lower Clearwater River	Restore meanders and riparian cover to a channelized portion of Beau Gerlot Creek.	TBD

Operations and Maintenance

Entities within the plan area are engaged in the inspection, operation, and maintenance of capital projects, stormwater infrastructure, public works, facilities, natural and artificial watercourses, and legal drainage systems. Operation and maintenance of natural watercourses, legal ditches, impoundments, and small dams will continue under regular operations and maintenance plans of the entities with jurisdiction over these systems. These details, along with records including notes and photos should be included with each project's Operations and Maintenance Plan. BWSR's recommended inspection plans for projects funded through BWSR grants, according to the GAM, include the following requirements below. Ditch projects and Watershed District projects funded by other sources are not subject to the GAM.

Capital-improvement projects with a minimum effective life of 25 years:

- The ends of Years 1, 8, 17, and 24 after certified completion is a recommended minimum.



Figure 6.3. Wild rice paddies in the Clearwater River Watershed. Credit: RLWD.

Regulatory and Ordinances Implementation Program

Many plan issues can be addressed in part through the administration of statutory responsibilities and local ordinances. In many cases, local ordinances have been adopted to conform to (or exceed) the standards and requirements of the state statutes. The responsibility for implementing these programs will remain with the respective counties or appointed LGUs. The RLWD has rule making authority per MS 103D.341 and permitting authority per 103D.345. Current rules were adopted in 2015 and could periodically change per life of this plan. The RLWD Rules are available by reference in **Appendix F**. To review current rules, please see the RLWD website (<http://www.redlakewatershed.org/>).



Counties and the watershed district will aim to meet approximately once a year to discuss ordinances and counties will notify each other of any proposed ordinance amendments. A full comparison of how local ordinances are used to administer statutory responsibilities is provided in **Appendix G**.

Applicable Plan Goals (Section 4):

- Sediment Reduction
- Phosphorus Reduction
- Ditch Stabilization
- Bacteria Reduction
- Streambank and Riparian Stabilization
- Drinking Water Protection
- High Value Resource Protection

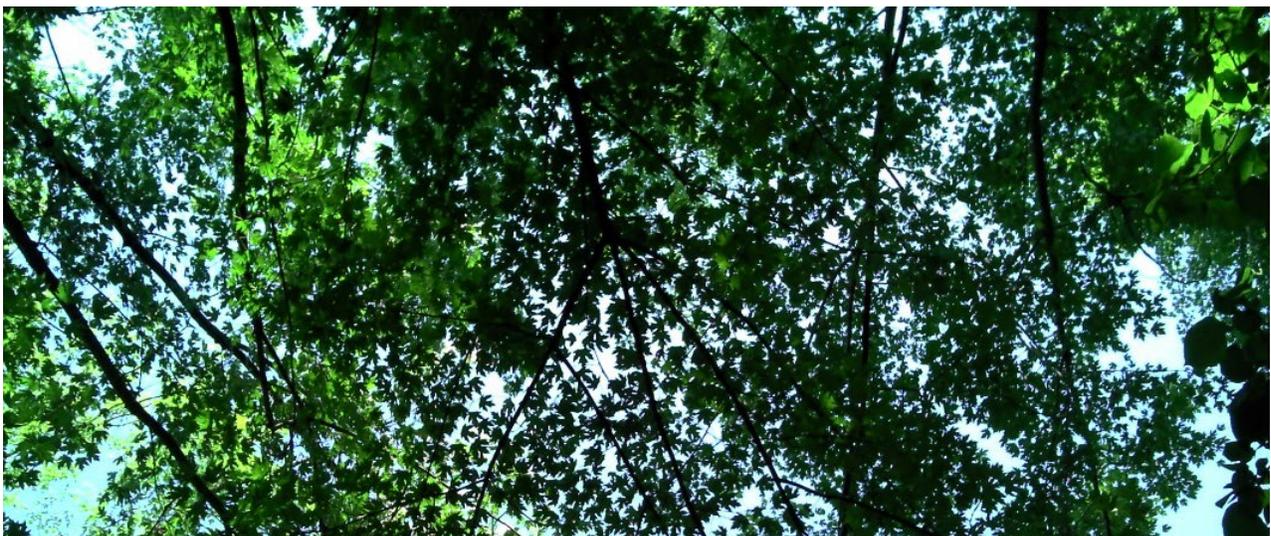


Figure 6.4. Forests in the Clearwater River Watershed.

Aggregate Management

Individual counties manage the development of and extraction of aggregate resources through local zoning and ordinances. The MPCA has regulatory authority at these facilities for industrial stormwater and wastewater. Aggregate extraction facilities must obtain a National Pollutant Discharge Elimination System (NPDES)/State Disposal System (SDS) permit from the MPCA for stormwater and wastewater discharges.

Aquatic Invasive Species

Aquatic invasive species can cause ecological and economic damage to water resources. The DNR has regulatory authority over aquatic plants and animals. Permits are required by the general public for transporting lake water, invasive species, and for treating invasive species. In Polk and Beltrami counties, the county oversees aquatic invasive species programs, whereas in Clearwater, Mahanomen, Pennington, and Red Lake counties, the SWCDs fill that role.

Bluffland Protection

MN State Statute (Section 103F.201) requires that local municipalities and counties with shoreland within their jurisdictional boundaries manage development of shoreland areas using ordinances to reduce the negative impacts of development. Many counties specifically target bluffland areas due to their disproportionate impact on sediment erosion when the bluff becomes unstable. Bluffland protection is part of county shoreland ordinances.

- **Regulations: Minnesota Statute 103F.201**

Buffers

The Riparian Protection and Water Quality Practices statute (Minnesota Statute Section 103F.48, commonly referred to as the Buffer Law) requires a 50-foot average continuous buffer of perennial vegetation with a 30-foot minimum width along all public waters and a 16.5-foot minimum width continuous buffer of perennial vegetation along all public drainage systems. Beltrami, Clearwater, Mahanomen, Red Lake, and Pennington counties administer the Buffer Law under specific local ordinances while Polk County administers the law through Section 25 of their zoning ordinance. Public drainage systems within the RLWD are administered by the RLWD through their Drainage Rule. In most situations, landowners have the option of working with their SWCD to determine if other alternative practices aimed at protecting water quality can be used in lieu of (or in combination with) a buffer.

- **Regulations: Minnesota Statutes 103B and 103F.48 Subd. 4**

Construction Erosion Control

Temporary construction erosion control is the practice of preventing and/or reducing the movement of sediment from a site during construction. Projects disturbing one acre or more of land will require a National Pollutant Discharge Elimination System (NPDES) Permit from the MPCA. Clearwater County has regulations within their shoreline ordinance that addresses construction erosion control. The RLWD regulates construction erosion control through their Rules.

- **Regulations: Minnesota Rules, Chapter 7090**

Feedlots

Feedlot rules, regulations, and programs were established under MN Rules 7020 to govern the collection, transportation, storage, processing, and land application of animal manure and other livestock operation wastes. The program is administered through the MPCA, but local counties may accept delegation of this authority. Pennington, Polk, and Red Lake counties have accepted this delegation, whereas Clearwater and Mahnommen counties have not.

- **Regulations: Minnesota Rules, Chapter 7020**

Floodplain Management

Floodplain zoning regulations are intended to guide development in the floodplain consistent with the magnitude of the flood threat to minimize loss of life and property, disruption of commerce and governmental services, extraordinary public expenditure for public protection and relief, and interruption of transportation and communication. The DNR and FEMA are in the process of updating floodplain maps on a county basis. Current flood maps can be found on the DNR website at https://www.dnr.state.mn.us/waters/watermgmt_section/floodplain/access-flood-maps.html. Floodplain zoning regulations are enforced through local ordinances by Mahnommen, Pennington, Polk, and Red Lake counties, and RLWD Rules.

- **Regulations: Minnesota Statutes 103F, 104, 394**

Groundwater Protection Rule

The MDA administers the Groundwater Protection Rule, which went into effect on June 24, 2019. The rule has two parts: Part 1 restricts the application of nitrogen fertilizer in the fall and on frozen soils; Part 2 responds to public water supply wells and elevated nitrate. Part 1 applies to the far southern portion of the watershed in Clearwater County. A map of specific restrictions can be found here:

<https://mnag.maps.arcgis.com/apps/webappviewer/index.html?id=47a342afe6654640b935c8e76023da92>

- **Regulations: Minnesota Statute 14.16**

Groundwater Use

The DNR administers groundwater appropriation permits for all users who withdraw more than 10,000 gallons of water per day or 1 million gallons per year. SWCDs, counties, and municipalities cooperate with the state and are offered the opportunity to comment on landowners' permit applications.

- **Regulations: Minnesota Statute 103G for appropriation; 103H, 1989 Groundwater Act**

Hazard Management

Hazard management may be defined as any action taken to eliminate or reduce the future risk to human life and property from natural- and human-caused hazards. Extreme weather events and infrastructure resilience also play a part in hazard management. Local emergency management departments are deployed in each of the contributing counties within the 1W1P boundary.

- **Regulations: Minnesota Statute 12**

Noxious Weed Law

Noxious weeds affect the natural, native balance of ecological functions. The Noxious Weed Law in Minnesota is administered by the MDA through SWCDs with the exception of Pennington County in which the Pennington County Highway Department administers noxious weed laws. The state maintains noxious weed lists of those species to eradicate, control, restrict, and specially regulated plants. The Pennington and Red Lake SWCDs organized Cooperative Weed Management Areas to inventory county noxious weeds, provide weed management outreach, and develop cost-share programs. Red Lake SWCD has a cost-share program and Pennington SWCD will be developing one.

- **Regulations: Minnesota Statute 18**

Public Drainage Systems

Drainage authority is granted to counties and watershed districts through MN Statute Chapter 103E to establish, construct, and in perpetuity maintain public drainage systems. County boards serve as the drainage authorities for public drainage systems in Beltrami, Mahnomen, Pennington, Polk, and Red Lake counties. The RLWD is the drainage authority for Clearwater County. The RLWD has a system of rules and regulations for the management of water within the district, and a list of actions which require a permit to proceed with work in any public drainage system in the RLWD (Appendix F).

- **Regulations: Minnesota Statute 103E**

Shoreland Management

The Minnesota Legislature has delegated responsibility to LGUs to regulate the subdivision, use, and development of shorelands along public waters to preserve and enhance the quality of surface waters, conserve the economic and natural environmental values of shorelands, and provide for the wise use of waters and related land resources. This statute is administered and enforced as a shoreland ordinance for Beltrami, Clearwater, Mahnomen, and Red Lake, and as a county zoning ordinance for Polk County. The Pennington SWCD and Red Lake SWCD administer the shoreland ordinance in their respective counties.

- **Regulations: Minnesota Statute 103F and Minnesota Rules, Chapter 6120.2500-3900**

Solid Waste Management

Minnesota's Waste Management Act has been in place since 1980 and establishes criteria for the management of all types of solid waste including mixed municipal solid waste, construction and demolition waste, and industrial waste. In order to receive annual grant funding to assist in implementing waste management programs, each county must have a MPCA approved Solid Waste Management Plan. All counties in the plan area have approved plans. Counties can also adopt Solid Waste Ordinances to use as a supplement in enforcing MPCA Rules. All participating 1W1P counties have a solid waste ordinance that is administered by the county.

- **Regulations: Minnesota Statutes 115A, 400**

Subsurface Sewage Treatment Systems (SSTS)

The Subsurface Sewage Treatment System (SSTS) Program is administered by the MPCA to protect the public health and environment. SSTS Ordinances are adopted and enforced at the county level to meet state requirements. The Pennington SWCD administers the SSTS Ordinance for the county. All participating counties administer Minnesota Rules Chapter 7080 through 7083 for SSTSs through local ordinances.

- **Regulations: Minnesota Rules, chapters 7080 through 7083**

Well Code

The MDH administers the well code, which includes well construction standards to protect groundwater resources and requirements to seal unused wells.

- **Regulations: Minnesota Rules 4725**

Wellhead Protection

The Minnesota Department of Health (MDH) administers the state wellhead protection rule that sets standards for wellhead protection planning. Municipalities within the watersheds have completed wellhead protection plans. A map identifying completed wellhead protection plans can be found at:

<https://mdh.maps.arcgis.com/apps/View/index.html?appid=5051b7d910234421b0728c40a1433baa>.

- **Regulations: Minnesota Rules, Chapter 4720.5100 – 4720.5590**

Wetland Conservation Act

The Minnesota Legislature passed the Wetland Conservation Act (WCA) of 1991 to achieve no net loss of, increase the quantity, quality, and biological diversity of, and avoid direct or indirect impacts to Minnesota's wetlands. LGUs are responsible for administering, regulating, and educating landowners on WCA. The county serves as the WCA LGU for Clearwater County. In Mahnomon, Polk, Pennington, and Red Lake counties, the SWCD serves as the WCA LGU.

- **Regulations: Minnesota Rules, Chapter 8420**

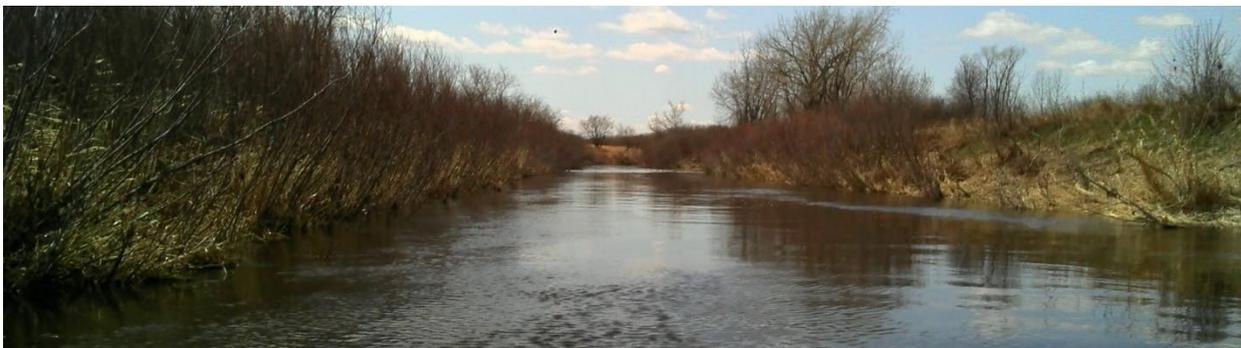


Figure 6.5. Clearwater Watershed, credit: RLWD.

Comprehensive or Land Use Plans

Counties and municipalities within the Clearwater River Watershed are responsible for land use planning, which is administered through local zoning ordinances. Comprehensive or land use plans have been adopted by the local governmental units within the watershed. From a regulatory perspective, management of lands and resources may overlap with the local government entities listed below. Therefore, meeting goals and strategies of local planning may also involve other governmental or non-governmental entities. Local government units within the Clearwater River Watershed that have comprehensive and/or land use plans are provided in Table 6.2. Please note this is not intended to be all-inclusive.

Table 6.2. Comprehensive and Land Use Management Plans adopted within the Clearwater River 1W1P planning area.

Local Governmental Unit (LGU)	Comprehensive or Land Use Management Plan (Year adopted/Revised)
Beltrami County	Beltrami County Local Water Management Plan (2017)
Clearwater County	Clearwater County Comprehensive Plan (1999) Clearwater County Local Water Management Plan (2010)
Pennington County	Pennington County Local Water Management Plan (2010)
Polk County	Polk County Sustainable Development Comprehensive Plan (1997/2008) Polk County Water Plan (2012)
Red Lake County	Red Lake County Comprehensive Local Water Management Plan (2010)
Red Lake Nation	Red Lake Band of Chippewa Indians Integrated Resource Management Plan (2011)
White Earth Nation	White Earth Strategic Plan (2001)
City of Bagley	The City of Bagley Land Use Plan (2014)
Red Lake Watershed District	Red Lake Watershed District Comprehensive Plan (2006/2018)



Figure 6.6. Farm field near Trail, MN.

Data Collection and Monitoring Implementation Program

The Data Collection and Monitoring Implementation Program funds actions which close data gaps to allow for tailored, science-based implementation strategies. The program also funds ongoing efforts aimed at the development and assembly of data and information.



Ongoing surface water monitoring programs are led by local and state entities. The MPCA’s Watershed Pollutant Load Monitoring Network (WPLMN) provides continuous monitoring of water quality conditions, with three WPLMN sites in the Clearwater River Watershed:

- Clearwater River at Plummer, MN (USGS ID 05078000)
- Clearwater River at Red Lake Falls, MN (USGS ID 05078500; MPCA ID S002-118)
- Lost River nr Brooks, CR119 (MPCA ID S002-133)

The DNR Cooperative Stream Gaging (CSG) database is a shared repository of monitoring data between the DNR, MPCA, United States Geological Survey (USGS), and National Weather Service (NWS). Two additional monitoring sites from the CSG database include:

- Judicial Ditch 64 nr Mentor, MN (DNR ID 66052001; USGS ID 05078470)
- Lost River at Oklee, MN (DNR ID 66062001; USGS ID 05078230)



Figure 6.7. Hill River water quality sampling.

Local entities that monitor water quality include SWCDs, the RLWD, River Watch, International Water Institute, and other citizen organizations such as lake associations (Figure 6.8) (MPCA, 2021a). Some macroinvertebrate sampling occurs in the watershed by groups such as River Watch, SWCDs, and the MPCA. Results from these networks and other ongoing tracking and monitoring programs can be used to document measurable water quality and quantity changes resulting from implementation. For example, the MPCA plans to assess the Clearwater River Watershed once every 10 years (MPCA, 2021a). The Clearwater WRAPS recommends additional monitoring for TMDL and other planning purposes, including that related to geomorphology, ditch inventories, erosion, and AIS.

Citizen volunteers monitor many sites in the watershed, especially lakes, including Pine, Lone, Walker Brook, Clearwater, Bagley, Whitefish, Bee, and Maple lakes. The Clearwater SWCD and East Polk SWCD conduct lake monitoring on lakes in their counties. In addition, the White Earth Natural Resource Department monitors lakes and streams for water quality, aquatic invasive species, and biological health (macroinvertebrates). The Red Lake Nation monitors the Clearwater River for water quality and stream habitat assessments and samples fish and invertebrate populations.

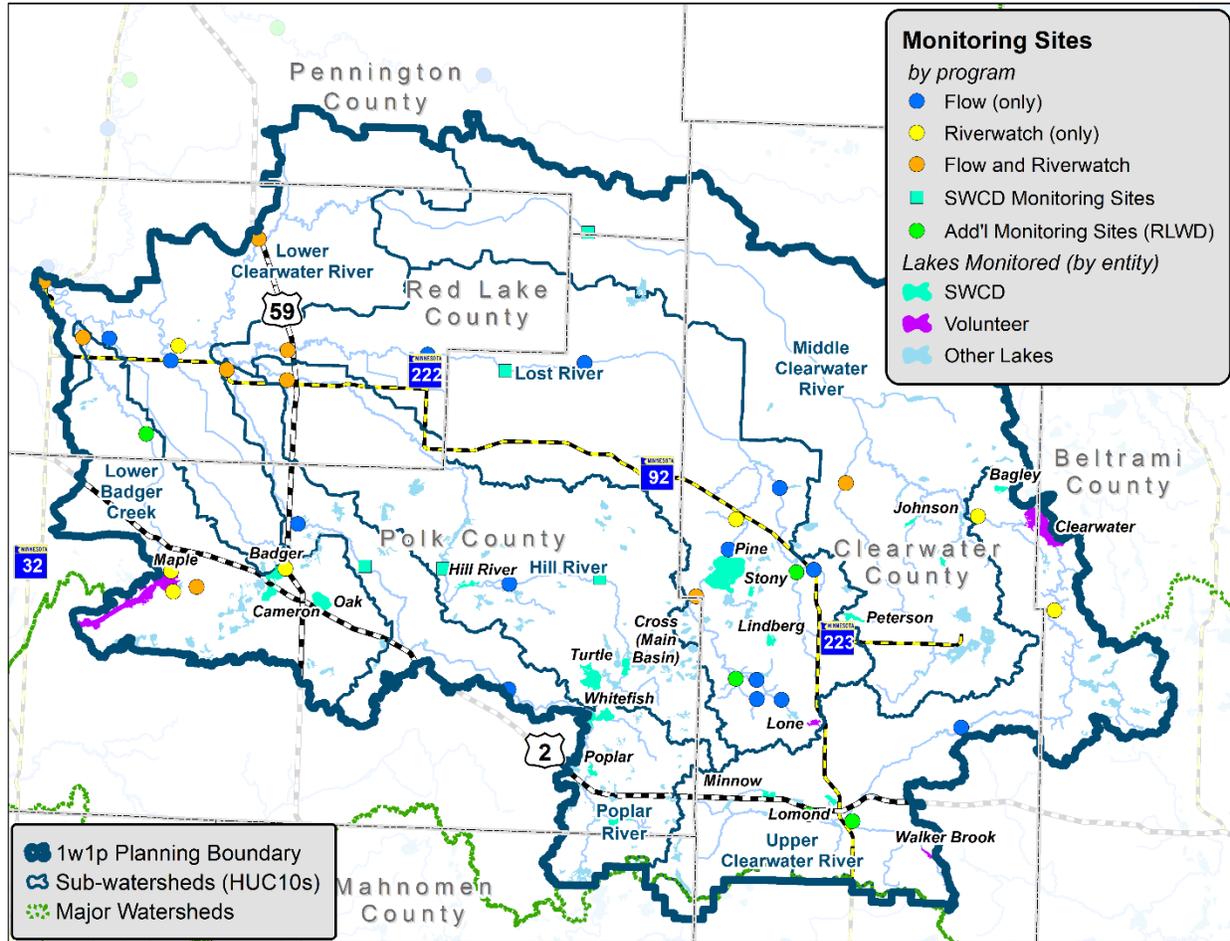


Figure 6.8. Monitoring sites in the Clearwater River Watershed.

Ongoing monitoring efforts also track groundwater supply quantity and quality trends (Figure 6.9). Current programs include Public Water Supplier Monitoring, MPCA's Ambient Groundwater Monitoring Program, DNR high-capacity permitting program, and the DNR Observation Well Network (monitored by SWCDs). These programs have provided valuable information but are not yet extensive enough to fully assess the state of groundwater in the region.

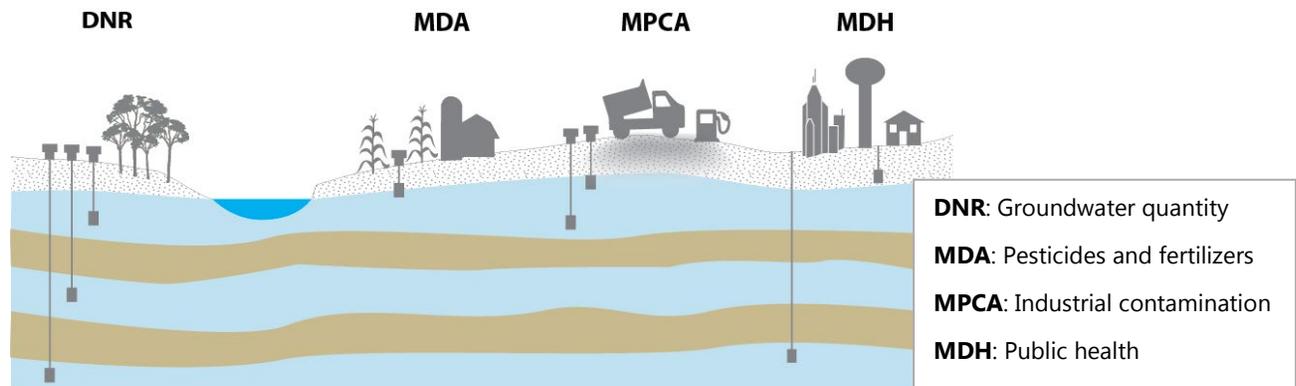


Figure 6.9. Roles of groundwater monitoring in Minnesota. Credit: DNR.

During implementation, the Data Collection and Monitoring Implementation Program will build on the data and information processes already established by plan participants. The Data Collection and Monitoring Implementation Program will be collaborative (especially where efforts cross administrative boundaries), with partnership entities sharing services wherever possible.

Education and Outreach Implementation Program

The Education and Outreach Implementation Program funds actions to increase engagement and understanding to make progress toward plan goals. The program is operated through sharing of services. Expectations are that a common set of template education and outreach materials will be developed for use across the watersheds but delivered by the staff within each county and/or planning region. Engaging landowners is critical for understanding issues impacting residents and solutions that are viable. Activities designed for engaging landowners include the following items below. These activities will continue and be built upon as part of the Education and Outreach Program (detailed in Section 5).



- Farm tours
- Soil demonstration plots
- Field days
- Community education meetings (e.g. Minnesota Agricultural Water Quality Certification meetings and weed management workshops).



Figure 6.10. Soil health field day held in Red Lake County in 2019.

This program is also dedicated to engaging area youth in natural resource management, building upon current efforts. These example activities center around educating youth on the importance of natural landscape and the environmental issues that impact it.

- | | |
|---|---|
| <ul style="list-style-type: none"> ▪ River Watch ▪ River of Dreams ▪ Water Fest ▪ Conservation Day ▪ Family Fun Night at the Lake ▪ Envirothon ▪ FFA, 4-H ▪ Arbor Day Trees | <ul style="list-style-type: none"> ▪ County Fairs ▪ Ag in the Classroom ▪ Trout in the Classroom ▪ Northwest Minnesota Soil Contest ▪ Sponsor Conservation Camps for kids ▪ Poster contests ▪ Science Fair Judging |
|---|---|

In addition, this program will continue to support general public education and outreach. Actions may include development of educational materials, newsletters, coordination of

volunteer activities, and public meetings to raise awareness and gain a better understanding of the consequences of individual decisions on water management. Also included are general media campaigns, citizen and LGU surveys, private well water testing clinics, and municipal training.

There are also virtual educational opportunities. Many local government staff use social media (e.g. Facebook, Twitter, and YouTube) to educate and inform the general public on local resource issues and upcoming events. E-mail, website updates, newsletters, news articles, and other releases are also a priority for communicating water quality, quantity, and conservation issues with local citizens. These platforms serve to easily and effectively communicate important watershed information in a timely manner.

Achieving Plan Goals

This plan focuses both on restoration and protection activities. Table 6.3 below summarizes the different levels of measuring progress and how it will be implemented in this plan. Projects will be tracked during plan implementation using a system set up for the watershed.

Table 6.3. Description of how different activities will be measured during plan implementation.

Level	Description		Clearwater Application
Tracking	Practices, acres, pounds of phosphorus.		Outputs in Targeted Implementation Schedule (Section 5). Projects will be tracked with a system and reported in eLINK during implementation.
Estimating	Using lower resolution calculators and tools to give a sense of the collective impacts of projects.		PTMApp benefits calculator per Planning Region (Section 5).
Modeling	Incorporating landscape factors and project information to predict future conditions.		HSPF in WRAPS Cycle 2 starting in 2025.
Measuring	Using field-collected information to assess the condition of the water.		Lake Monitoring, Pollutant Load Monitoring Network stream monitoring at watershed pour point (S002-118), WRAPS Cycle 2 in 2025.
Proving	Having enough measurements to compare with standards and decide if it's improved.		Analysis of lake water quality trends, Analysis of loading at watershed pour point (S002-118), WRAPS Cycle 2 in 2025.

Resiliency

Resilience is the ability of a system to experience change but not be affected. Resilience can be both social and ecological (MGLP, 2021). Social resilience is organization and regulation. For example, having a Lake Association or Lake Improvement District build social framework to implement lake projects. Ecological resilience includes landscape diversity, water retention, and fixing past hydrological alterations. For example, protecting forests and restoring wetlands at the watershed and landscape scale provide resilience to increasing precipitation trends.

This plan includes actions and programs that build both social and ecological resilience.

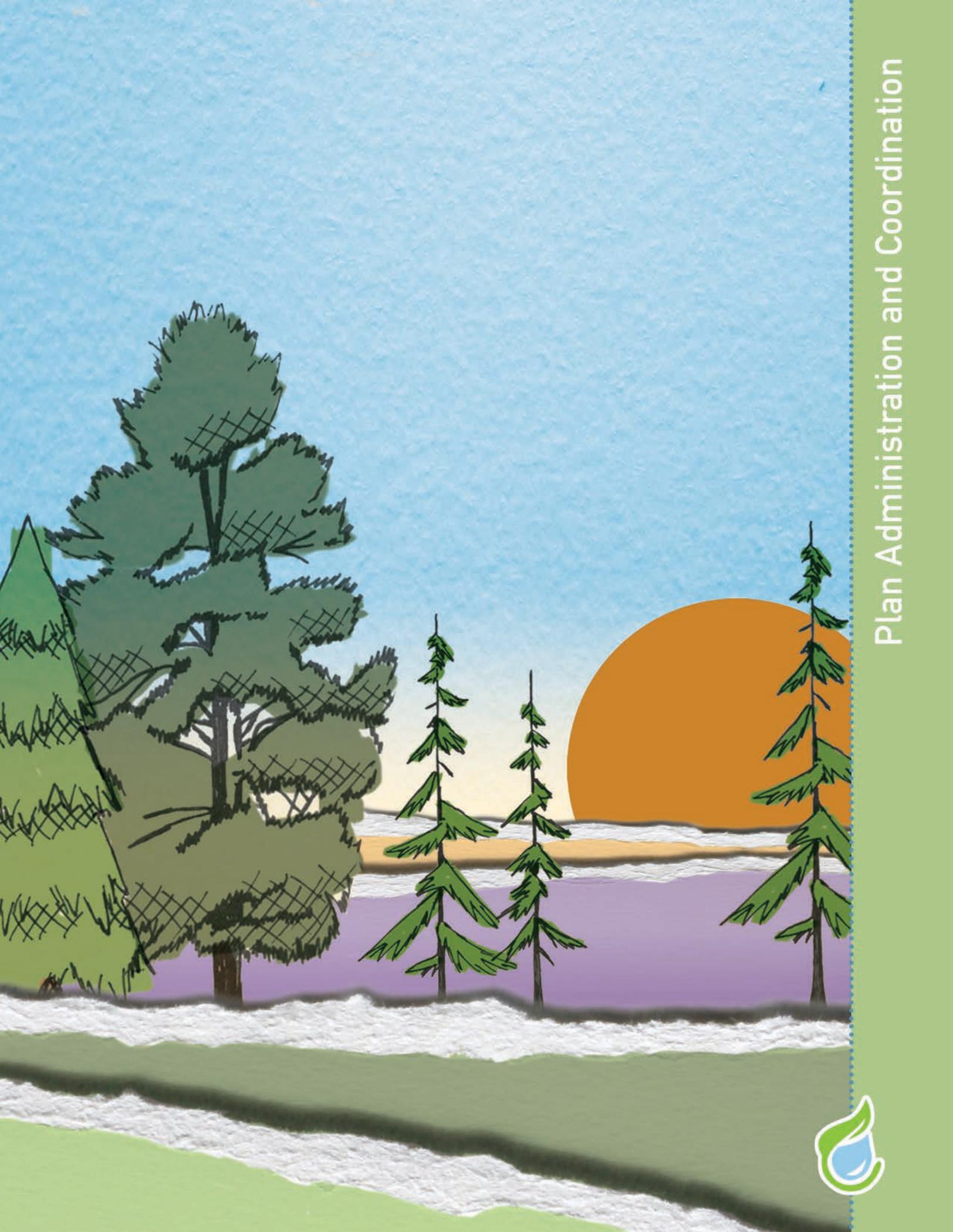
- Social resilience programs and actions:
 - Regulatory program
 - Outreach and education program
 - Cost share incentives for best management practices

- Ecological resilience programs and actions:
 - Forest management and protection
 - Soil Health practices
 - Wetland restoration
 - Stormwater retention
 - Streambank stabilization
 - Restoring floodplain connectivity

By managing the watershed holistically including resilience and water and land stewardship, the Clearwater River Watershed partners can work towards achieving the vision of the watershed.

From the forests in the east to the farmlands in the west, the Clearwater River Watershed hosts a mosaic of recreational and economic opportunities. We aim to sustainably manage our lakes, rivers, forests, farms, and groundwater for future prosperity and enjoyment.





Plan Administration and Coordination



SECTION 7. PLAN ADMINISTRATION AND COORDINATION



Plan Administration and Coordination describes how the plan will be implemented, how the watershed partners will work together, how the funding will move between them, and who will handle the administrative duties. The CRCWMP will be implemented through a MOA between the following entities:

- Clearwater County and SWCD
- Pennington County and SWCD
- Red Lake County and SWCD
- Polk County and East Polk SWCD
- Red Lake Watershed District

The Implementation MOA will be very similar to the Planning MOA (Appendix I), with refinements clarifying roles for implementing the plan.

Decision-Making and Staffing

Implementation of the CRCWMP will require increased capacity of plan partners, including increased staffing, funding, and coordination from current levels. Successful implementation will depend on continuing and building on partnerships in the watershed with landowners, planning partners, state agencies, and organizations.

Three committees will serve this plan during implementation:

- **Policy Committee:** Comprised of Policy Committee members from the planning process (one county commissioner and one SWCD board supervisor appointed from each of the participating counties in the watershed, plus a manager from the RLWD).
- **Advisory Committee:** Comprised of Clearwater River Watershed Planning Work Group and Advisory Committee members from the planning process (local stakeholders including state agencies).
- **Planning Work Group:** Comprised of SWCD and RLWD Staff and the BWSR Board Conservationist.

Table 7.1 outlines the probable roles and functions of these committees during implementation. Expectations are that the roles of each committee will shift and change focus during implementation. Fiscal and administrative duties will be assigned to a member LGU through a Policy Committee decision as outlined in the formal agreement. Responsibilities for annual work planning and serving as the fiscal agent can be revisited by the Policy Committee in the future if needed.

Table 7.1. Anticipated roles for CRCWMP Implementation.

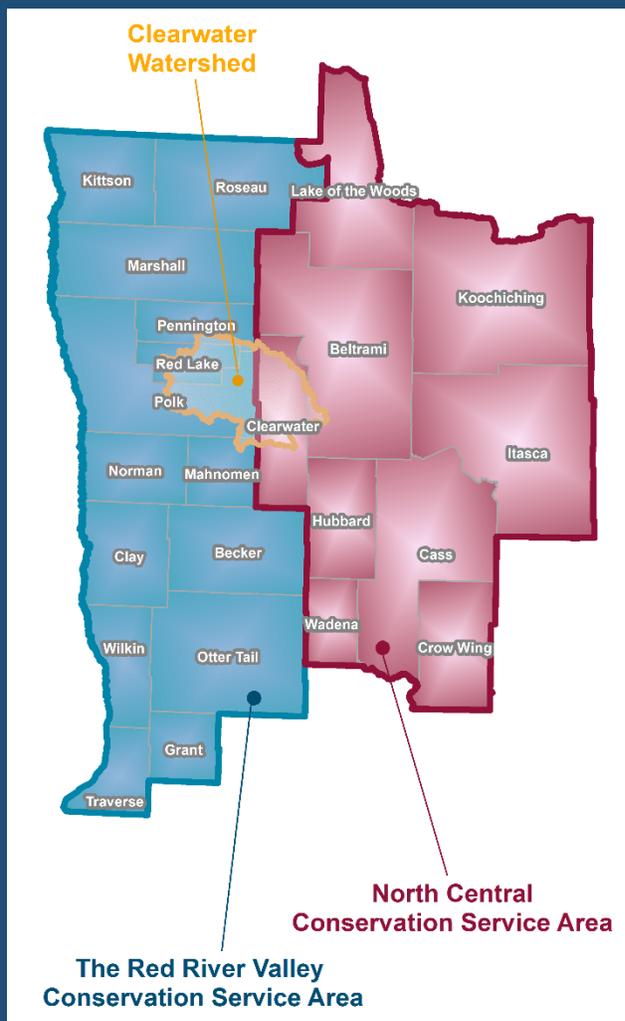
Committee Name	Primary Implementation Roles/Functions
Policy Committee	<ul style="list-style-type: none"> ▪ Meet two to four times a year or as needed ▪ Review the implementation funds from plan participants ▪ Approve the annual work plan ▪ Approve annual fiscal reports ▪ Approve annual reports submitted to BWSR ▪ Annual review and confirmation of Advisory Committee priority issue recommendations ▪ Direction to Advisory Committee on addressing emerging issues ▪ Approve plan amendments ▪ Implement county ordinances and state statutory responsibilities separately from plan implementation ▪ Approve grant applications ▪ Approve annual assessment
Advisory Committee	<ul style="list-style-type: none"> ▪ Meet annually or as needed ▪ Review and provide input for the annual work plan ▪ Review and identify collaborative funding opportunities ▪ Recommendations to Clearwater River Watershed Planning Work Group on program adjustments ▪ Assist with execution of the targeted implementation schedule
Planning Work Group	<ul style="list-style-type: none"> ▪ Meet monthly or as needed to review projects ▪ Review the status of available implementation funds from plan participants ▪ Review annual fiscal reports ▪ Review annual reports submitted to BWSR ▪ Biennial review and confirmation of priority issues ▪ Evaluate and recommend response to emerging issues ▪ Prepare plan amendments ▪ Prepare the annual work plan ▪ Prepare and submit grant applications/funding requests ▪ Research opportunities for collaborative grants ▪ Implement the targeted implementation schedule
Local Fiscal/Administrative Agent and Coordinator	<ul style="list-style-type: none"> ▪ Convene committee meetings ▪ Report on how funds were used ▪ Compile annual results for annual assessment

Collaboration

Collaboration Between Planning Partners

The benefits of successful collaboration between planning partners include consistent implementation of actions watershed-wide, increased likelihood of funding, and resource efficiencies gained. The planning partners will pursue opportunities for collaboration with fellow planning partners to gain administrative and program efficiencies, pursue collaborative grants, and provide technical assistance. The planning partners will also review similarities and differences in local regulatory administration to identify local successes and identify changes needed in the future to make progress towards goals outlined in this plan. The planning partners already collaborate on technical services in the Red River Valley Conservation Service Area (RRVCSA) and the North Central Conservation Service Area (NCCSA).

Collaboration in the Technical Service Areas (TSA)



Purpose:

To provide engineering assistance to private landowners, via Soil and Water Conservation Districts, for a variety of non-point water quality management practices.

Program Description:

This program was established in 1994 in conjunction with the Agricultural Best Management Practices and Clean Water Partnership Loan Programs and established an engineering assistance program for SWCDs to provide engineering assistance to landowners for conservation practices. Eight joint powers groups of soil and water conservation districts were created statewide in early 1995 to employ professional engineer and technician teams to provide technical assistance in cooperation with member SWCDs. The associated joint powers boards are composed of a supervisor from each of the member SWCDs. One of the member SWCDs serves as the host district and manager for the engineer and technician team employed by the joint powers boards. The Becker SWCD serves in this capacity for the RRVCSA (TSA 1) and the Crow Wing SWCD fills this role for the NCCSA (TSA 8).

Non-point Engineering Assistance teams provide technical assistance through member soil and water conservation districts and in cooperation with the NRCS and other local, state, and federal agencies. BWSR provides policy, training, administrative, and technical consultation to the joint powers boards and their staff.

Collaboration with Other Units of Government

The Clearwater River Watershed Planning Work Group will continue coordination with other governmental units. This cooperation and coordination occur at the local, state, federal, and or tribal level. At the state/federal level, coordination between the Partnership and agencies such as BWSR, US Army Corps of Engineers (USACE), DNR, MDH, and the MPCA occur through legislative and permit requirements. Local coordination between the Partnership and comparable units of government such as municipalities, city councils, township boards, county boards, and the RLWD board are a practical necessity to facilitate watershed-wide activities. Examples of collaborative programs in the watershed include EQIP (NRCS), CRP (FSA), Minnesota Agriculture Water Quality Certification (MDA), Farm Bill Biologist (MDA), Wellhead Protection for city DWSMAS (MRWA and MDH), Minnesota Forest Resource Council and WRAPS (MPCA). Collaboration with Tribal Nations can occur on projects, monitoring, and outreach. Any potential project collaborations would be subject to Tribal Council approval.

The Clearwater River Watershed Planning Work Group will exercise intergovernmental coordination and cooperation as an absolute necessity for it to perform its required functions. The Red River Basin already has a high level of collaboration on a basin-wide scale as outlined below. The Clearwater River Watershed Planning Work Group will continue to foster an environment that enhances coordination and cooperation to the maximum extent possible throughout the implementation of this plan.

Collaboration within the Red River Basin

Due to the long history of flooding in the Red River Basin, there has been a significant effort to collaborate basin-wide on projects including studies, flood damage reduction, retention, and administration. This collaboration crosses state lines with North Dakota and International borders with Canada.

Red River Basin Commission (RRBC)

The RRBC is a charitable, not-for-profit organization designed to help facilitate a cooperative approach to water management within the Basin and is a well-established forum for identifying, developing, and implementing solutions to cross-boundary issues. The RRBC is comprised of local, state, provincial, and First Nation government representation, the environmental community, and at-large members.

Red River Watershed Management Board (RRWMB)

The RRWMB's jurisdiction and authority encompasses the area managed by the individual watershed districts that have membership on the board. The RLWD is a member of the RRWMB.

Red River Retention Authority (RRRA)

The RRRA is comprised of members of the Red River Joint Water Resource District, a North Dakota political subdivision, and the Red River Watershed Management Board, a Minnesota political subdivision. The primary objective of the RRRA is to ensure joint, comprehensive, and strategic coordination of retention projects in the Red River of the North watershed and facilitation implementation and construction of retention in the Red River Valley.

International Water Institute (IWI)

The IWI is a non-profit organization that works with basin partners on research, monitoring and outreach.

Collaboration with Others

Local support and partnerships will drive the success of final outcomes of the actions prescribed for implementing this plan. Because this plan’s focus is voluntary land stewardship practices, collaborations with landowners in the watershed is of utmost importance. There are many actions in the plan that describe working with individual landowners on providing cost share and technical assistance for implementing land stewardship practices.

The CRCWMP expects to continue and build upon existing collaboration with others, including non-governmental organizations, while implementing this plan. Many of these existing collaborations are aimed to increase habitat and recreational opportunities within the plan area, while providing education and outreach opportunities. Partners for these collaborations include, but are not limited to, lake associations, International Water Institute, The Nature Conservancy, Ducks Unlimited, MN Deer Hunters Association, Pheasants Forever, Sportsman’s Clubs, National Wild Turkey Federation, local co-ops, University of Minnesota Extension, civic groups, private businesses, individuals, and foundations.

Funding

This section describes how the plan will be funded and how that funding will be used. The majority of the plan funds (80%) will be used for implementing projects on the landscape through the Projects and Practices Program and the Capital Improvements Program (Figure 7.1). These two programs also include the technical assistance and administration required to implement them.

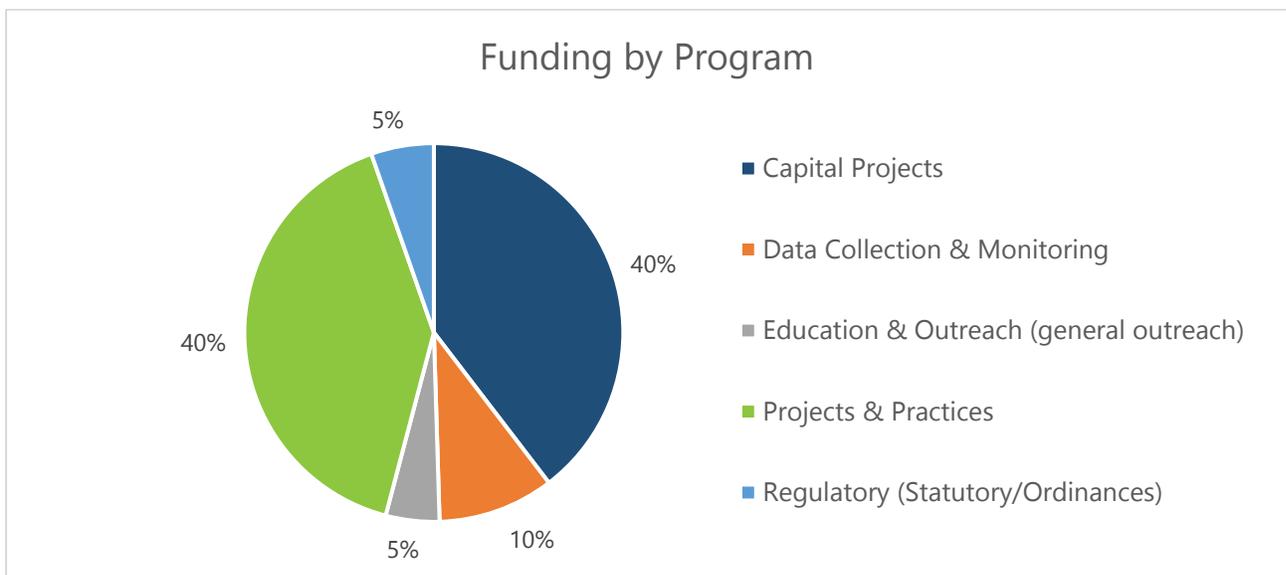


Figure 7.1. Percentage of funding for each implementation program, Level 2.

The current funding level (Level 1) is based on the estimated annual revenue and expenditures for plan participants combined and allocated to the plan area based on the percentage of each county’s land area in the Clearwater River Watershed. Level 1 funding includes local, state, and federal funding, as explained in the following sections. Level 2 funding is Level 1 funding plus

the new watershed-based funding (state funding) that will be available upon completion of this plan. Level 3 funding summarizes projects that help make progress to plan goals, but that are not administered by planning partners (counties, SWCDs, and RLWD). Level 3 funding mostly consists of the Conservation Reserve Program (CRP) and Sustainable Forest Incentive Act (SFIA).

Throughout the implementation of the CRCWMP, the Clearwater River Watershed Planning Work Group expects to operate at Level 2 funding. The totals for each level are summarized in Table 7.2).

Table 7.2. Estimated implementation funding for the CRCWMP.

Funding Level	Description	Estimated Annual Average	Estimated Plan Total (10 years)
Level 1	Baseline Funding for Current Programs	\$927,000	\$9,270,000
Level 2	Baseline + Watershed-Based Implementation Funding (WBIF) + Grants (CWF)	\$1,544,300	\$15,443,000
Level 3	Partner funding (NRCS, USFWS, SFIA, TNC, CRP, Lessard-Sams)	\$3,750,046	\$37,500,460
	Total*	\$5,294,346	\$52,943,460

**This total does not include Level 1 because Level 2 is additive with Level 1.*

Local Funding

Local revenue is defined as money derived from either the local property tax base or in-kind services of any personnel funded from the local tax base. Examples include local levy, county allocations, and local match dollars (**see Local Funding Authorities in Appendix I**). Watershed districts can establish water management districts (WMD) to fund projects under current law (103D). These WMDs must be included in watershed plans adopted by watershed districts.

Local funds will be used for locally focused programs where opportunities for state and federal funding are lacking because of misalignment of a program’s purpose with state or federal objectives. These funds will also be used for matching grants.



Figure 7.2. Sunset in Clearwater County.

Water Management Districts

This funding option can only be used to collect charges to pay costs for projects initiated under MS 103D.601, 103D.605, 103D.611, or 103D.730. To use this funding method, Minnesota law (MS 103D.729) requires that the area to be included in the WMD be described, the amount to be charged identified, the methods used to determine the charges be described, and the length of time the WMD is expected to remain in force specified.

Description of WMDs

This plan establishes the seven planning regions as WMDs. The RLWD may create different WMDs under future plan amendments.

- Upper Clearwater River
- Middle Clearwater River
- Lower Clearwater River
- Hill River
- Poplar River
- Lost River
- Lower Badger Creek

Duration of Existence of WMDs

The Policy Committee anticipates that the WMDs will provide funding to assist with the implementation of a variety of runoff, bank stabilization, flood damage reduction, and/or water quality related projects. The WMDs will remain in existence in perpetuity. Annual assessment of charges could vary from no charges to the maximum WMD revenue limit of the planning region.

Use of Funds

The primary use of funds collected from charges within WMDs will support projects that help achieve the goals of the planning regions, which benefits residents within a WMD.

Annual Charge Amount

The maximum WMD revenue limit within each WMD is based on 0.10% of the taxable market value within each planning region. This value will change each year as property values increase or decrease over time.

Method to Determine Charges

The methods proposed to establish the charges will be based upon the proportion of the total annual runoff volume and/or solids load contributed by a parcel or may be based on the drainage area of the parcel within a WMD.

Option 1: The runoff volume method will:

- use soils and land use data to determine the existing curve number for each parcel within a WMD;
- use the curve number for each parcel and the annual average precipitation depth to compute the annual runoff volume for each parcel;
- sum the annual average runoff volumes for all parcels within a WMD to determine the total annual runoff volume; and

- compute the percentage of the annual runoff volume from each parcel as the ratio of the annual average runoff volume from the parcel and the total annual average runoff volume for the WMD (i.e., the “runoff ratio”).

Option 2: The solids load contribution method will:

- use the Revised Universal Soil Loss Equation and a sediment delivery ratio representing the portion of the solids and sediment reaching a watercourse to compute the annual average sediment and solids load for each parcel;
- sum the annual average solids and sediment loads for all parcels within a WMD to determine the total annual average sediment and solids load; and
- compute the percentage of the annual average sediment and solids load from each parcel as the ratio of the annual average sediment and solids load from the parcel and the total annual average sediment and solids load for the WMD (i.e., the “sediment ratio”).

Option 3: The combination runoff volume and solids load method will:

- consider both runoff volume and solids load contribution and would follow the methodologies listed above for both solids contribution and runoff volume;
- add the runoff ratio and/or the sediment ratio to compute the charge ratio for each parcel within the WMD. The amount charged to a specific parcel is the sum of the runoff ratio and the sediment ratio for the parcel divided by the sum of the runoff ratio and the sediment ratio for all parcels within the WMD; and
- apply the charge ratio to the total amount of revenue needed for the WMD to carry out the stormwater related projects, programs, and activities described by the plan to achieve the stormwater related goals within that WMD.

Option 4: The drainage area method will:

- determine the drainage area of each parcel of land within the planning region;
- compute the charge based on the charge ratio which is determined by taking the drainage area of that parcel within the planning region divided by the total area of the planning region; and
- apply the charge ratio to the total amount of revenue needed for the WMD to carry out the stormwater related projects and programs described by the plan to achieve the stormwater related goals within that WMD.

Selection of the appropriate process of determining charges will be established and further refined in Step 3 of the process described in the next section.

Process to be Used to Create WMDs

BWSR has provided guidance as to the process of creating a WMD. The process involves eight steps. The first two steps are addressed through this CWMP developed according to the BWSR 1W1P Operating Procedures (March 23, 2016). Steps 3 through 8 must be completed prior to any collection of charges in any WMD.

Step 1. Amend CRCWMP to create a WMD

Amendment must include:

- Description of area to be in the WMD
- The amount to be raised by charges (total amount is necessary if fixed time for WMD to be in force, otherwise annual maximum (cap) amount)
- The method that will be used to determine the charges
- The length of time the WMD will be in force (perpetuity is acceptable)

Step 2. Approval of plan amendment under M.S. § 103D.411 or as part of a revised plan under M.S. § 103D.405

- Revised plan, or petition and amendment, sent to BWSR
- BWSR gives legal notice, and holds hearing if requested
- BWSR orders approval or prescribes plan or amendment
- BWSR notifies Watershed District managers, counties, cities, SWCDs

Step 3. Watershed District establishes project(s) in the WMD

- Project(s) implemented must be ordered by the WD managers
- Order for project(s) must specify funding method(s)
- WD must notify counties, cities, and townships within the affected area at least 10 days prior to hearing or decision on projects(s) implemented under this section of statute

Step 4. Watershed District refines methodology for computing charges based on final project scope

Step 5. Watershed District determines and sets charges for all properties within the WMD after identifying scope of project and deciding method(s) of funding

Step 6. Watershed District develops collection mechanism

- Request county or counties to collect,
- Contract with a private vendor (e.g. electric cooperative), or
- Billing and collection by WD

Step 7. Watershed District establishes a separate fund for proceeds collected from the fee or stormwater utility charges

Step 8. Resolution of Disputes

Local governments may request BWSR to resolve disputes pursuant to M.S. § 103D.729, Subd. 4, except a local appeal process must be completed first for disputes involving WMDs established in perpetuity

Local Appeal

Local Appeal Procedure

Because WMDs established under this plan are proposed to be perpetual, the following local appeal procedure is established from the resolution adopting the plan establishing a WMD:

1. Upon receipt of the order of BWSR approving the plan establishing a WMD, the WD shall publish notice of its resolution adopting the plan in a newspaper in general circulation in the CRCWMP area.
2. Any landowner affected by the WMD may, within 30 days of first publication of notice of the resolution, appeal the establishment of the WMD to the WD by filing a letter stating the basis for the appeal.
3. Within 30 days of receiving a letter of appeal, the WD shall hold a hearing on the appeal, giving the appellant an opportunity to be heard and to present evidence why the WMD should not be established. The hearing shall be noticed as required for a special meeting under statutes chapter 103D.
4. The hearing shall be recorded in order to preserve a record for further review. The record of the appeal shall include the recording, any documentary evidence provided by the appellant, and all records related to the establishment of the WMD.
5. Within 30 days of the hearing, the WD shall adopt and mail findings and an order on the appeal to the appellant and the BWSR.
6. Further appeal, if any, shall be as provided in Statutes Chapter 103D and existing authorities and procedures of the BWSR Board.

State Funding

State funding includes all funds derived from the State tax base. Examples of state funding includes conservation delivery, state cost share, Natural Resources Block Grants, Clean Water Funds, and SWCD Local Capacity Building Grants.

Leadership from the state agencies that are tasked with protection and restoration of Minnesota's water resources came together and agreed on a set of high-level state priorities that align their programs and activities working to reduce nonpoint source pollution. The resulting Nonpoint Priority Funding Plan outlines a criteria-based process to prioritize Clean Water Fund investments. These high-level state priority criteria include:

- Restoring those waters that are closest to meeting state water quality standards
- Protecting those high-quality unimpaired waters at the greatest risk of becoming impaired
- Restoring and protecting water resources for public use and public health, including drinking water

The Clearwater River Watershed Planning Work Group will apply as an entity for collaborative grants, which may be competitive or non-competitive. The assumption is that future base support for implementation will be provided to the Clearwater River Watershed as one or more non-competitive watershed-based implementation funding grants (Level 2). Where the purpose of an implementation program aligns with the objectives of various state, local, non-profit, or

private programs, these dollars will be used to help fund the implementation programs described by this plan.

Federal Funding

Federal funding includes all funds derived from the Federal tax base. For example, this includes programs such as the Environmental Quality Incentives Program (EQIP), Conservation Reserve Program (CRP), and Conservation Stewardship Program (CSP).

Partnerships with federal agencies are an important resource for ensuring implementation success. An opportunity may exist to leverage state dollars through some form of federal cost-share program. Where the purpose of an implementation program aligns with the objectives of various federal agencies, federal dollars will be used to help fund the implementation programs described by this plan. For example, the NRCS will likely provide support for agricultural best management practices, while the FSA may provide land-retirement program funds such as CRP (Table 7.3).

Additional Funding Sources

Current programs and funding (Level 1) will not be enough to implement the full targeted implementation schedule. As such, the success of implementing the plan will depend on collaboratively sought competitive state, federal, and private grant dollars as well as increased capacity.

Plan participants may pursue grant opportunities collaboratively or individually to fund implementation of the targeted implementation schedule. Within the targeted implementation schedule, actions are assigned implementation programs. Table 7.3 shows the most used state and federal grants for executing the actions described by this plan cross-referenced to plan implementation programs, thereby showing potential sources of revenue for implementation.

Several non-governmental funding sources may also provide technical assistance and fiscal resources to implement the targeted implementation schedule. This plan should be provided to all non-governmental organizations as a means of exploring opportunities to fund specific aspects of the targeted implementation schedule.

Private sector companies, including those specifically engaged in agribusiness, are often overlooked as a potential source of funding for implementation. Some agribusiness companies are providing technical or financial implementation support because they are interested in agricultural sustainability. This plan could be used to explore whether the resource benefits arising from implementation have monetary value and therefore, provide access to funding from the private sector.

Table 7.3. Implementation programs and related funding sources for the Clearwater River Watershed. Note: List is not all-inclusive.

Program/Grant		Primary Assistance Type	Projects & Practices	Capital Improvement Projects	Data Collection & Monitoring	Education & Outreach
Federal Programs/Grants						
NRCS	Conservation Innovation Grant (CIG)	Financial	•			
	Conservation Stewardship Program (CSP)	Financial	•			
	Environmental Quality Incentives Program (EQIP)	Financial	•			
	Agricultural Conservation Easement Program (ACEP)	Easement	•			
FSA	Conservation Reserve Program (CRP)	Easement	•	•		
	Conservation Reserve Enhancement Program (CREP)	Easement	•	•		
	Farmable Wetlands Program (FWP)	Easement	•			
	Grasslands Reserve Program (GRP)	Easement	•			
	Wetland Reserve Program (WRP)	Easement	•	•		
FSA/ USDA/ NRWA	Source Water Protection Program (SWPP)	Technical				•
USFWS	Partners for Fish and Wildlife Program	Financial/ Technical	•			
FEMA	Hazard Mitigation Grant Program (HMGP)	Financial	•	•		
	Pre-Disaster Mitigation (PDM)	Financial	•	•		
	Flood Mitigation Assistance (FMA)	Financial	•	•		
	Risk Mapping, Assessment, and Planning	Technical	•	•		
EPA	Water Pollution Control Program Grants (Section 106)	Financial				•
	State Revolving Fund (SRF)	Loan	•			
	Drinking Water State Revolving Fund (DWSRF)	Loan	•			
	Section 319 Grant Program	Financial	•		•	•
State Programs/Grants						
OHF	Lessard Sams Outdoor Heritage Fund	Financial	•	•	•	•
DNR	Aquatic Invasive Species Control Grant Program	Financial/ Technical	•			•
	Conservation Partners Legacy Grant Program	Financial	•	•		
	Pheasant Habitat Improvement Program (PHIP)	Financial	•			

Program/Grant		Primary Assistance Type	Projects & Practices	Capital Improvement Projects	Data Collection & Monitoring	Education & Outreach
	Flood Hazard Mitigation Grant Assistance	Financial	•	•	•	•
	Forest Stewardship Program	Technical	•			
	Aquatic Management Area Program	Acquisitions	•			
	Wetland Tax Exemption Program	Financial	•			
BWSR	Clean Water Fund Grants	Financial	•	•		•
	Erosion Control and Management Program	Financial	•			
	SWCD Capacity Funding	Financial	•		•	•
	Natural Resources Block Grant (NRBG)	Financial	•			•
	Reinvest in Minnesota (RIM)	Financial	•	•		•
MPCA	Surface Water Assessment Grants (SWAG)	Financial			•	•
	Clean Water Partnership	Loan	•			
MDH	Source Water Protection Grant Program	Financial	•		•	•
MDA	Agriculture BMP Loan Program	Financial	•			
	Minnesota Agricultural Water Quality Certification Program	Financial	•			•
PFA	Public Facilities Authority (PFA) Small Community Wastewater Treatment Program	Financial	•	•		
Other Funding Sources						
Red River Watershed Management Board		Financial/ Technical	•	•	•	•
Ducks Unlimited		Financial/ Technical	•	•	•	•
Trout Unlimited		Financial/ Technical	•	•	•	•
Muskie, Inc		Financial/ Technical	•	•	•	•
The Nature Conservancy		Financial	•	•	•	•
Minnesota Land Trust		Financial	•	•	•	•

Work Planning

Local Work Plan

Work planning is envisioned to align the priority issues, availability of funds, and roles and responsibilities for implementation. A biennial work plan will be developed by the Clearwater River Watershed Planning Work Group based on the targeted implementation schedule and any adjustments made through self-assessments. The work plan will then be presented to the Policy Committee, who will ultimately be responsible for approval. The intent of these work plans will be to maintain collaborative progress toward completing the targeted implementation schedule.

State Funding Request

The Clearwater River Watershed Planning Work Group will collaboratively develop, review, and submit a biennial watershed-based funding request from this plan to BWSR. This request will be submitted to and ultimately approved by the Policy Committee, prior to submittal to BWSR. The request will be developed based on the targeted implementation schedule and any adjustments made through self-assessments.

Assessment, Evaluation, and Reporting

Accomplishment Assessment

The Clearwater River Watershed Planning Work Group will provide the Policy Committee with an annual update on the progress of the plan's implementation, with input from the Advisory Committee. For example, any new projects will be tracked against their goal metrics such as acres of forest management, number of bacteria reduction projects, and tons of sediment reduced. A tracking system will be used to measure progress and will serve as a platform for plan constituents. Tracking these metrics will also make them available for supporting future work plan development, progress evaluation, and reporting.

Partnership Assessment

Biennially, the Clearwater River Watershed Planning Work Group will review the CRCWMP goals and progress toward implementation, including fulfillment of committee purposes and roles, efficiencies in service delivery, collaboration with other units of government, and success in securing funding. During this review process, feedback will be solicited from the Advisory Committee, SWCD and county boards, RLWD, and partners such as state agencies and non-governmental organizations. This feedback will be presented to the Policy Committee to set the coming biennium's priorities for achieving the plan's goals and to decide on the direction for grant submittals. Also, this feedback will be documented and incorporated into the five-year evaluation. Plan partners intend to pursue watershed-based funding to meet goals and plan implementation schedules.

Five-year Evaluation

This plan has a ten-year life cycle beginning in 2023. To meet statutory requirements, this plan will be updated and/or revised every 10 years. Over the course of the plan life cycle, progress towards reaching goals and completing the implementation schedule may vary. In addition, new issues may emerge and/or new monitoring data, models, or research may become available. As such, in 2028-29 and at every 5-year midpoint of a plan life cycle, an evaluation will be

undertaken to determine if the current course of actions is sufficient to reach the goals of the plan, or if a change in the course of actions is necessary.

Reporting

LGUs have several annual reporting requirements. A number of these reporting requirements will remain a responsibility of the LGUs. The Plan Coordinator, with the assistance of the Clearwater River Watershed Planning Work Group, will be responsible for reporting related to grants and programs developed collaboratively and administered under this plan. In addition to annual reports, the Clearwater River Watershed Planning Work Group, with input from the Advisory Committee, may also develop a State of the Watershed Report. This report will document progress toward reaching goals and completing the targeted implementation schedule and will describe any new emerging issues or priorities. The information needed to annually update the State of the Watershed Report will be developed through the annual evaluation process.

The fiscal agent is responsible for submitting all required reports and completing annual reporting requirements for CRCWMP as required by state law and policy. The Clearwater River Watershed Planning Work Group will assist in developing the required reports and roles and responsibilities will be defined in the MOA Bylaws.

Plan Amendments

This plan extends through 2033 per the BWSR order approving it. Activities described in this plan are voluntary, not prescriptive, and are meant to allow flexibility in implementation. An amendment will not be required for addition, substitution, or deletion of any of the actions, initiatives, and projects if those changes will still produce outcomes that are consistent with achieving the plan goals. This provision for flexibility includes changes to the activities except for those of capital improvement projects (CIPs).

Revision of the plan may be needed through an amendment prior to the plan update if significant changes emerge in the priorities, goals, policies, administrative procedures, or plan implementation programs. Revisions may also be needed if issues emerge that are not addressed in the plan.

Plan amendments may be proposed by any agency, person, city, county, or WD to the Policy Committee, but only the Policy Committee can initiate the amendment process. All recommended plan amendments must be submitted to the Policy Committee along with a statement of the problem and need, the rationale for the amendment, and an estimate of the cost to complete the amendment. However, the existing authorities of each LGU within the Clearwater River Watershed is still maintained. As such, CIPs need only be approved by a local board to be amended to the plan if implementation of the CIP is funded by the local board, with notification to the Policy Committee. CIPs implemented with funding from the plan must follow the means and methods for funding new capital improvements as developed by members of the Policy Committee or the individual and representative Boards.

Plan participants recognize the large work effort required to manage water-related issues. The plan provides the framework to implement this work by identifying priority issues, measurable goals, and action items. No amendment will be required for the following situations:

- Any activity implemented through the “normal” statutory authorities of an LGU, unless the activity is deemed contrary to the intent and purpose of this plan;
- The estimated cost of a non-capital improvement project action item is different than the cost shown within this plan;
- The addition or deletion of action items, programs, initiatives or projects, as long as these are generally consistent with the goals this plan, are not capital improvement projects as defined by this plan (nor is contemplated by an implementation program), and will be proposed, discussed and adopted as part of the annual budgeting process which involves public input.

If a plan amendment is needed, the plan amendment process, which is the same as the plan review process, is as follows:

- Submit the amendment to all cities, counties, and conservation districts within the plan boundary, the state review agencies (the DNR, MPCA, MDA, and MDH), and BWSR for a 60-day review
- Respond in writing to any concerns raised by the reviewer
- Policy Committee is to hold a public hearing on the proposed amendment
- Submit the revised amendment to the state review agencies and BWSR for a 45-day review
- The Policy Committee must submit the final revised amendment to BWSR for approval

At the discretion of the Policy Committee, drafts of proposed plan amendments may be sent to all plan review authorities for input before beginning the formal review process. Examples of situations where a plan amendment may be required include:

- Addition of a capital improvement project that is not described by the plan
- Establishment of a water management district(s) to collect revenues and pay for projects initiated through MS 103D. To use this funding method, MS 103D.729 requires that the Clearwater River Watershed Planning Work Group (or equivalent) prepare an amendment to its plan
- Addition of new programs or other initiatives that have the potential to create significant financial impacts or controversy, when inconsistent with the issues, goals, and policies

Plan amendments will be prepared in a format consistent with 103B.314 subd. 6. Unless the entire plan is re-printed, all adopted amendments must be printed in the form of replacement pages for the plan, each page of which must:

- show deleted text as stricken and new text as underlined for draft amendments being considered,
- be renumbered as appropriate, and

- include the effective date of the amendment.

The Policy Committee will maintain a distribution list for copies of the plan and within 30 days of adopting an amendment distribute copies of the amendment to the distribution list. Generally, electronic copies of the amendment will be provided, or documents made available for public access on all participating entity's websites. Printed copies will be made available upon written request and printed at the cost of the requester.

Formal Agreements

The CRCWMP will be implemented by the Clearwater River Planning Work Group. The CRCWMP is a coalition of the following partners:

- Clearwater County and SWCD
- Pennington County and SWCD
- Red Lake County and SWCD
- Polk County and East Polk SWCD
- Red Lake Watershed District

The Partnership previously entered into a formal agreement through an MOA for planning the CRCWMP (Appendix I). The entities will draft an MOA for purposes of implementing this plan. The Policy Committee of the CRCWMP oversees the plan implementation with the advice and consent of the individual county and SWCD boards under the umbrella of the implementation MOA.



Figure 7.3. Pastureland in Clearwater County.