












Pine River Watershed Midpoint Goal Progress

CATEGORY	GOAL NAME	GOAL	PROGRESS	DETAILS
	PROTECTION	Protect and enhance forest cover, outstanding lake water quality, habitat, surficial sand aquifers, and downstream drinking water by promoting 75% land protection in targeted minor watersheds.	15% 80%	<ul style="list-style-type: none"> 9,004 acres protected (easements, SFIA, acquisitions) 8,252 acres Forest Stewardship Plans
	PHOSPHORUS REDUCTION	Reduce phosphorus loading into declining lakes by 5% by implementing best management practices in residential and road areas.	<i>See next page</i>	<ul style="list-style-type: none"> 51 projects completed Numerous feasibility studies completed
	PASTURE MANAGEMENT	Reduce agricultural runoff to downstream lakes by 5% and improve stream habitat in impaired streams to meet the IBI standard in the South Fork and Whitefish Subwatersheds by promoting pasture management (678 acres).	94%	<ul style="list-style-type: none"> 639 acres BMPs (17 landowners) 215 acres native seed drill (6 landowners) Closed one feedlot for 198 acres Willow Creek was restored
	CULVERT MANAGMENT	Implement an integrated approach to culvert management that includes inventories and cooperation between local units of government to understand drainage and restore proper function with future culvert replacements.	100%	<ul style="list-style-type: none"> Cass County completed culvert inventory Crow Wing County already had a culvert inventory 100% compliance with the MN Buffer Law
	WETLANDS	Maintain current coverage of wetlands as currently administrated under federal, state and local regulations and identify potential restoration areas where past disturbance occurred.	100% <i>ongoing</i>	<ul style="list-style-type: none"> Implemented WCA 5 restoration plans EOR study on high phosphorus wetlands
	HABITAT PROTECTION	Protect two miles of undeveloped riparian lands, ice ridges and forested riparian corridors through outreach to private residents.	550%	<ul style="list-style-type: none"> Protected 11 miles of streams and lakes (1,331 acres)
	HABITAT RESTORATION	Maintain and enhance/restore two miles of riparian vegetation on streams and lakes with over 10% shoreland impervious surface/disturbed area and/or a declining water quality trend through outreach to private citizens.	60%	<ul style="list-style-type: none"> Restored 1.2 miles of shoreline (6,284 feet, 36 projects) Completed impervious surface inventory for Cass County (Crow Wing was already completed)
	WELL SEALING	Protect Drinking Water Supply Management Areas (DWSMAs) and locate and seal 30 unused residential wells per year to prevent groundwater contamination.	10%	<ul style="list-style-type: none"> 32 unused wells sealed



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	SEPTIC SYSTEMS	Maintain high quality drinking water in surficial sand aquifer areas by encouraging landowners to have their subsurface sewage treatment systems maintained every three years to achieve a 90% maintenance rate for the watershed.	<i>Goal not measurable</i>	<ul style="list-style-type: none"> Upgraded/replaced X septic systems Hosted one workshop with U of MN in 2023 Annual training for septic system designers/installers
	CHLORIDES	Manage chlorides reaching surface and groundwater from road salts and water softener salts going into sewage treatment systems.	<i>Goal not measurable</i>	<ul style="list-style-type: none"> Worked with 3 cities/townships Host 3 workshops/year MPCA innovative salting training program used by both Cass & Crow Wing counties
	NITRATES	Manage fertilizer application to keep nitrates in drinking water below the state standard of 10 mg/L.	<i>Goal not measurable</i>	<ul style="list-style-type: none"> Host annual workshop in the watershed Purchased a new Hach machine for analyzing samples Completed groundwater atlas New observation well installed at Pine River township

LAKE GOAL PROGRESS

Lake	County	Mgmt Category	5% Reduction Goal (lbs phosphorus)	Progress (lbs phosphorus)	Progress (%)
Big Trout	Crow Wing	ENHANCE	45	45	☑ 100%
Whitefish	Crow Wing	ENHANCE	792	2.6	0.3%
Clamshell	Crow Wing	ENHANCE	8	0.1	1%
Island-Loon	Crow Wing	ENHANCE	4	4.7	☑ 118%
Pig	Crow Wing	ENHANCE	4	0.7	18%
Ada	Cass	PROTECT	36	1.9	5%
Roosevelt	Cass	PROTECT	135	3.8	3%
Bertha	Crow Wing	PROTECT	12	3	25%
Rush-Hen	Crow Wing	PROTECT	9	2.5	28%
Pelican	Crow Wing	PROTECT	62	0.5	1%
Ruth	Crow Wing	PROTECT	18	2	11%
O'Brien	Crow Wing	PROTECT	27	0	0%
Ossawinnamakee	Crow Wing	PROTECT	25	3.9	16%
Lower Hay	Crow Wing	PROTECT	46	0.6	1%
Upper Hay	Crow Wing	PROTECT	88	4.2	5%