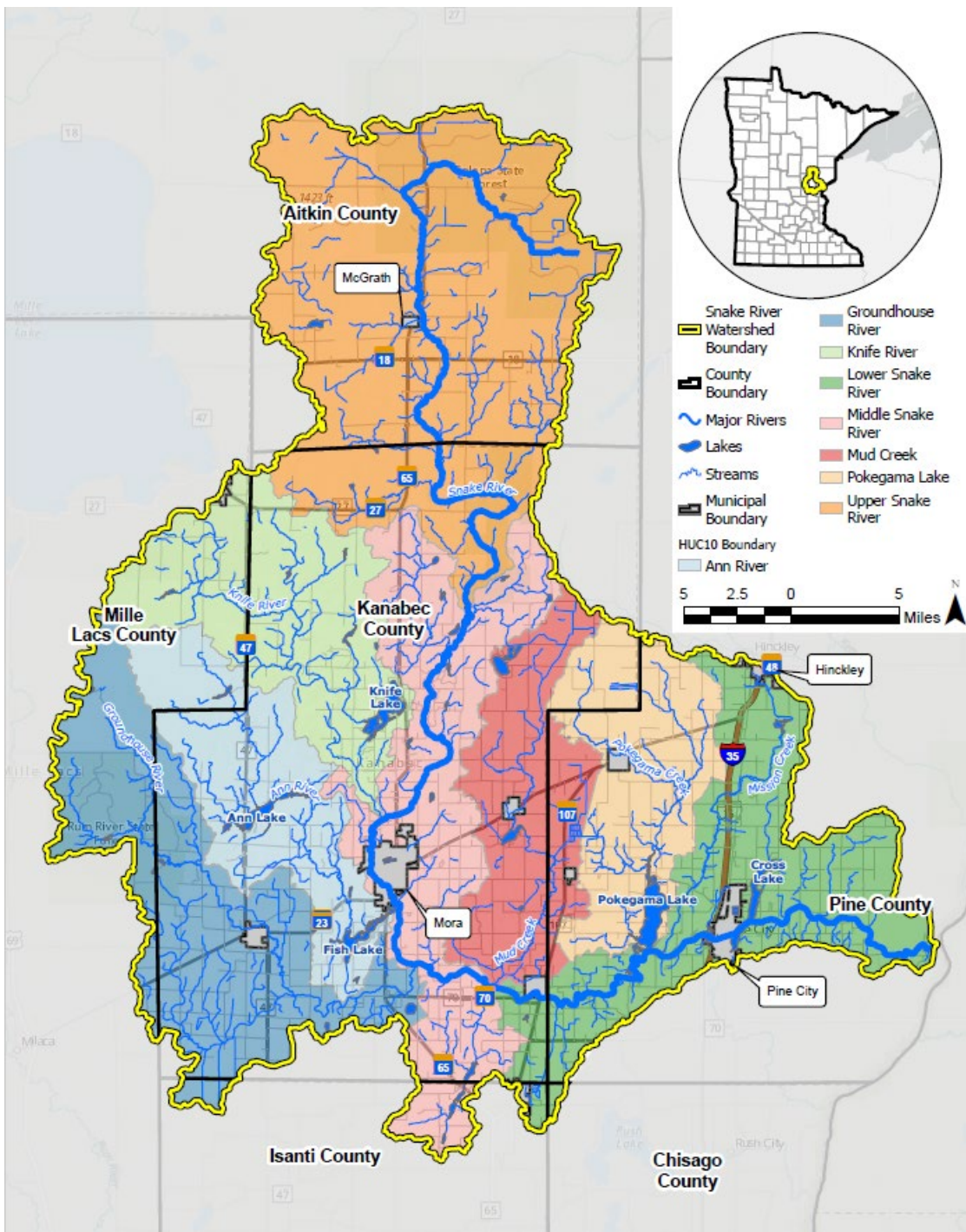


Snake River Comprehensive Watershed Management Plan



2024-25 Work Plan - Final

The Partnership's Mission

The mission of the Snake River Watershed Plan Partnership (SRWPP) is to implement the Snake River Comprehensive Watershed Management Plan. The Partnership seeks to facilitate collaboration across its member entities and connect landowners with the resources needed to manage their natural resources. The SRWPP strives to work with and empower landowners and partners in the restoration and protection of the watershed's natural resources.

Year 1-2 Abstract Summary

The Snake River Watershed Plan Partnership is seeking Watershed Based Implementation Funds (WBIF) predominantly for the promotion and installation of Best Management Practices on private lands. The key milestones for the three years of the grant are listed below. Some of the initial activities include outreach efforts to targeted priority areas with the completion of up to three sub-watershed assessments to aid in this measure. Targeted sub-watersheds have been identified in the plan and are summarized below in Addendum A. Due to limited staff capacity within the watershed, this proposal includes the new hiring of the equivalent of 1.5 new full time watershed employees.

The key 2-year measurable milestones include:

- 107 # Reduction in Total Phosphorus through the installation of Best Management Practices (BMP)
- 170 Ton reduction in Total Suspended Solids (TSS)
- 70 outreach contact hours completed
- 3 sub-watershed assessments
- 5 outreach documents or demonstrations completed
- 1 acre feet of wetlands restored (equivalent of 1-9 acres restored)
- 3 private septic systems brought into compliance or built
- 800 ft. of buffers installed (about 8-14 projects)
- 3 unused wells sealed
- 800 acres of Forest Stewardship Planning written
- 100 acres of Forestry Best Management Practices installed
- 1 livestock BMP installed
- 1 Nutrient Management Plan completed

The first two years of implementing the Snake River Comprehensive Watershed Management Plan (Plan) will focus in-part on building the momentum for implementation. Some of this focus is to include outreach/education, sub-watershed assessments and building the pipeline of projects for implementation. This will involve the Kanabec SWCD partner hiring a new watershed staff (1 Full-Time Equivalent FTE), getting them up-to-speed working with our watershed partners. This watershed position is planned to entail 1/3-time watershed outreach/education, 1/3 project coordination and 1/3 technical work. Watershed coordination efforts are planned to be completed by existing Kanabec SWCD staff at 1/3 of an FTE. Fiscal administration work is planned for execution under Pine County. Three sub-watershed assessments are planned for completion within the first 2-years to aid in targeting areas where the funds can be most effective. All staff will work in building the pipeline of projects for implementation. A seasonal, shared services, Forester is currently employed in the watershed. The goal for this position is to made it a

permanent FTE employee, with the Snake Partnership contributing ½ of FTE salary and the member entities continuing to pay the other 1/2.

Flexibility – Plan B:

The Steering Committee will plan to evaluate the progress on the planned goals at least annually. Once adequate progress is made within the priority areas identified in the plan, the committee with BWSR staff approval will evaluate the need to expand out the priority areas. Expanding out the priority areas is defined as moving just outside of the existing priority areas and into the next spatial tier of sub-watersheds, depending on the original priority area map. The Steering Committee with BWSR staff input will further define any expanded priority areas with Board approval.

Plan Funding:

The estimated cost to implement all Snake River Comprehensive Watershed Management Plan activities are \$19,794,500 over ten years; this equates to roughly \$1.98 million per year (p. 1-9 from Plan). Watershed Based Implementation Funds will not cover all costs of implementing the plan; thus, partners and the Partnership may also opt to leverage private, local, state, or federal funding to ensure progress toward plan goals.

Operating Budget:

All operating costs will be covered by FY24-25 Watershed Based Implementation Funds (WBIF). The table below covers the expenses for the entire FY24-25 WBIF grant period. Shifts of < 10% do not require board approval.

Adm. Operating Costs (2 yrs.)

Description	Cost	Funding Source	Hours (FTE)**
Insurance - MCIT	\$ 6,000	WBIF*	(1 FTE = 2088 hrs.)
Audit	\$ 3,000	WBIF	
Coordinator	\$ 91,000	WBIF	~1,253 hrs. (60%)
Reporting (e-link)	\$ 5,000	WBIF	~77 hrs. (4%)
Fiscal Agent	\$ 40,000	WBIF	~755 hrs. (36%)
Total	\$ 145,000		~2,085 hrs. (1 FTE) 2 yrs.
*Watershed Based Implementation Funds (WBIF)			
** Full Time Equivalent Employees			

Technical Costs - Staff (2 yrs.)

Description	Cost	Funding Source	Hours (FTE)**
Forestry^	\$ 89,800	WBIF	~2,088 hrs. (100%)^
Outreach / Marketing^	\$ 78,666	WBIF	~1,392 hrs. (66%)^
Outreach / Marketing	\$ 20,000	WBIF	~364 hrs. (17%)
Project Development^	\$ 78,666	WBIF	~1,392 hrs. (66%)^
Project Development	\$ 26,000	WBIF	~473 hrs. (23%)
Technical Assistance^	\$ 78,666	Kanabec SWCD	~1,392 hrs. (66%)^
Total	\$ 371,798		~7,101 (3.4 FTE) 2 yrs.
^New Watershed Staff (total 1.5 FTE)			

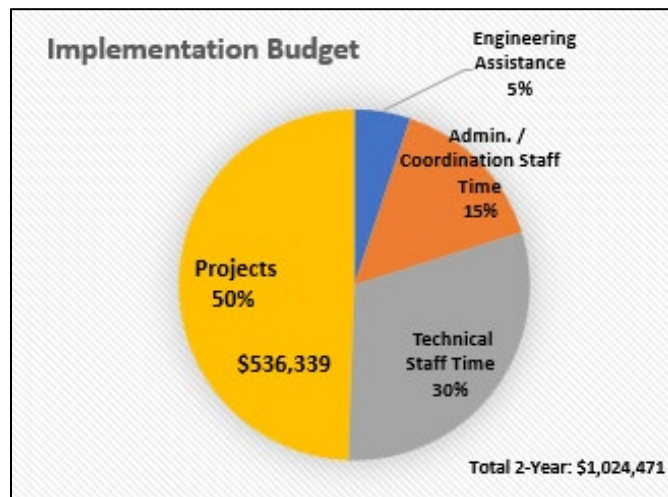


Figure 1 – Watershed Based Implementation Funding (WBIF) general break-down, including staff time

Partnership Funded Programs:

The Board of Water and Soil Resources (BWSR) Watershed Based Implementation Fund (WBIF) is the primary funding source for plan implementation of water quality activities via the Snake River Watershed Plan Partnership (SRWPP). Other funding sources may be identified over time for increased progress on our Plan goals. WBIF grants are issued every other year and expire after three years. We anticipate the partnership will receive approximately \$1,024,471 to implement the plan over two years. The WBIF grant funds will expire on 12/31/2026. The SRWPP will approve the work plan, sign the BWSR Grant agreement, guide program and project selection, and confirm expenditures. As part of the WBIF program, a schedule of key milestones associated with the grant goals must be provided. Milestones are listed in Table 1 below for each year of the grant and are measurable. Annual check-ins against the milestones will aid in determining progress towards grant goals.

See Table 2, starting on page 8 for more details on the WBIF budget and work plan activity descriptions.

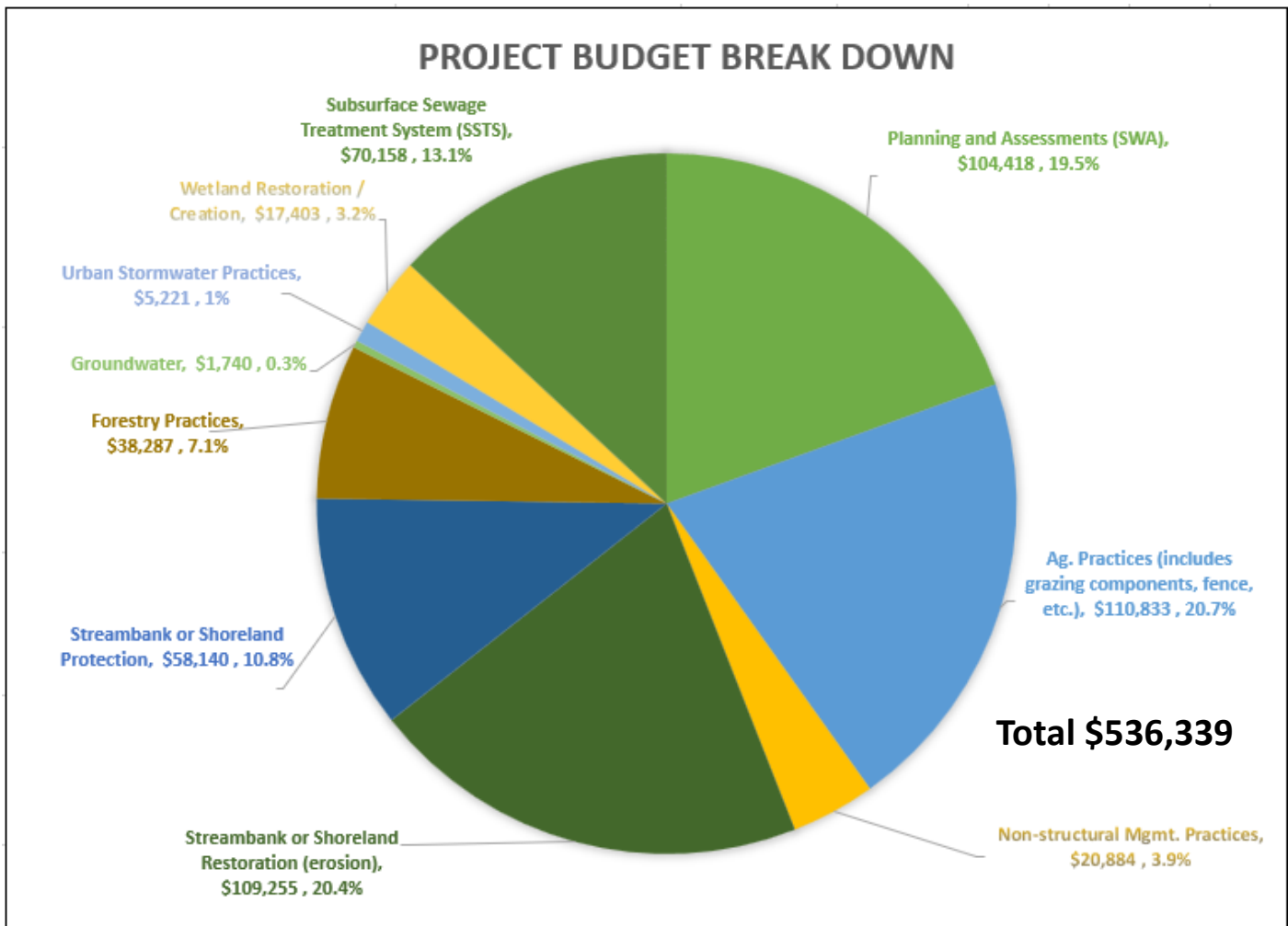


Figure 2 – WBIF Project Break-down into practice/project categories

See **Addendum A** for a pictorial representation summarizing which conservation practices are planned where within the watershed’s priority areas.

e-Link Activity Category	Year 1 Milestone	Year 2 Milestone	Year 3 Milestone
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Adm./Coordination	Set-up all administrative infrastructure as needed for implementation.		Grant and program administration successfully accomplished.
Planning & Assessments Sub-watershed Assessment (SWA)	Complete 1 sub-watershed assessments	Complete 2 sub-watershed assessments	
Education / Information	35 contact hrs. 1 native veg. document produced 1 shoreland demo.	35 contact hrs. 1 soil health demo. 1 shoreland demo. 1 native veg. document produced	20-35 contact hrs.
Ag. Practices (includes grazing components, fence, etc.)	20-25 # P reduced	20-25 # P reduced	10 # P reduced
Livestock Waste Mgmt.		1 livestock Best Management Practices (BMP) installed	
Non-Structural Mgmt. Practices (i.e., cover crops, reduced tillage, prescribed grazing)	Total Suspended Solids (TSS) reduced by 40-70 Tons	Total Suspended Solids (TSS) reduced by 40-70 Tons 1 Nutrient Management Plan (NMP) completed in priority lakes area	Total Suspended Solids (TSS) reduced by 40-60 Tons
Streambank or Shoreland Protection	Total Phosphorus reduced by 5-10#, TSS reduced by 35-45 Tons, 400-700' of buffers installed (2-4 projects) 0-2 rain gardens installed, 1-2 native plantings installed	Total Phosphorus reduced by 5-10#, TSS reduced by 35-45 Tons, 400-700' of buffers installed (2-4 projects) 0-2 rain gardens installed, 1-2 native plantings installed	Total Phosphorus reduced by 5-10#, TSS reduced by 35-45 Tons, 400-700' of buffers installed (2-4 projects) 0-2 rain gardens installed, 1-2 native plantings installed
Forestry Practices	30-300 acres – Forest Stewardship Planning 50-75 acres of forestry BMP	30-300 acres – Forest Stewardship Planning 50-75 acres of forestry BMP	30-300 acres – Forest Stewardship Planning 50 acres of forestry BMP
Groundwater	Seal 1-2 wells	Seal 1-2 wells	Seal 1-2 wells
Urban Stormwater Practices	Total P reduced by 1 #/year	Total P reduced by 1 #/year	Total P reduced by 1 #/year
Wetland Restoration/Creation		1 acre foot of wetlands restored	1 acre foot of wetlands restored
Subsurface Sewage Treatment System (SSTS)	2-3 septics updated / compliant	2-3 septics updated / compliant	2-3 septics updated / compliant
Project Development	Coordinate outreach watershed wide with partners targeting the plan's priority areas; coordinate & organize	Coordinate outreach watershed wide with partners targeting the plan's priority areas; coordinate & organize	Coordinate outreach watershed wide with partners targeting the plan's priority areas; coordinate & organize project or ordinance development

	project or ordinance development according to the plan watershed wide proposing policies as needed.	project or ordinance development according to the plan watershed wide proposing policies as needed.	according to the plan watershed wide proposing policies as needed.
Technical / Engineering Assistance	Technical Assistance to design and install projects provided.	Technical Assistance to design and install projects provided.	Technical Assistance to design and install projects provided.

Table 1

Measuring & Reporting of Progress:

Two watershed partners; Pine County and Aitkin SWCD plan to do the required e-link reporting, however all watershed staff will aid in calculating and tracking their individual contributions toward our Plan goals. A centralized, shared system such as an excel spreadsheet will be created to consolidate the data for review and reporting. Various tools will be used to calculate pollution reduction numbers such as RUSLE 2, field erosion measurements, BWSR pollution reduction calculators, Wetland Restoration Effectiveness Tool and others as determined. This may be part of the same system that is used to vet potential projects against our Plan’s measurable goals. A project vetting system is currently under development. A spatial method may also be developed for use in determining priority areas as well as tracking spatial progress throughout the watershed and presenting this to our partners and public. Staff will twice annually evaluate progress and adapt as needed to ensure measurable progress is being made.

Table 2		Snake River Watershed Work Plan / Budget Details				
Action ID	E-Link Category	1st Biennial Outcomes	Grant Budget (WBIF - 2 yr.)	Match (need 10%)	Match Source	Activity Description
	Adm./Coordination		\$ 145,000		SRWMB, local funds, in-kind match	<p>Funding for local staff time for grant / plan administration and other operational expenses. Staff time included for, but not limited to: time tracking, grant budget tracking and organization, reporting progress and land owner / LGU contract management.</p> <p>Fiscal Agent: Lead Pine County. Activities may include: Fiscal tracking, receive and issue payments, E-link reporting, audit coordination.</p> <p>Coordinator Lead: Kanabec SWCD. Activities may include: Acting as point of contact, development of WBIF biennial work plan, coordination of all committee meetings, ensuring progress on work plan.</p> <p>Implementation Tracking: Lead Pine County with Aitkin SWCD aiding. Activities include development of process to track progress towards plan goals.</p> <p>Insurance: For JPE such as MCIT. Annual fees.</p> <p>Audit: Annual Audit fees</p>
SwQual-5; LC-3, 9,13; SwQuan-12; E-3,7; H-2,18	Edu. / Information	70-105 contact hrs.; 1 article, 1-2 shoreland demos., 0-1 soil health demos., 2 documents on native veg.	\$ 98,666			<p>Outreach will focus on priorities addressed in the WBIF biennial work plan. Activities include public participation, education and engagement, equipment, demonstrations, workshops and other activities or materials necessary for the implementation of water quality practices and programs consistent with the purposes of these funds. Outreach/ educational materials developed may include but is not limited to: news articles/releases, fact sheets, field trips, field days, tours, demonstrations, flyers, brochures, door hangers, presentations and workshops.</p> <p>Lead - new watershed staff (Project Manager) with collaboration from existing staff - Primary outreach / education roles include but not limited to: developing creative, engaging programming and materials that can be distributed to all local staff involved with engagement; creating a catalog of stories sharing personal narratives about projects implemented across the watershed, promoting and hosting informational workshops, seminars, and other activities for the public to encourage BMP implementation that accomplishes the Plan's goals, compile annual reports to assess Plan progress for adaptive change. (Plan section 5.2).</p> <p>Website communication maintenance led by Mille Lacs SWCD.</p>
SwQuan-10	Project Development	0-2 ordinances updated	\$ 194,466			<p>Project Development: Funding for staff who support project development and coordination. Existing and new watershed staff time to provide technical outreach leading to the development of water quality programs and implementation of projects addressed in this work plan. Staff time includes activities such as, but not limited to: lining up and coordinating projects with landowners, presenting project to boards, initial site visits, field work (surveys, construction), preliminary conservation planning, permitting coordination, designing (planting or erosion control plans), follow-up as needed and calculating estimated pollution reduction numbers.</p> <p>Focus is for project development for wetland restorations, forestry (includes outreach), conservation easements, structural and non-structural BMPs.</p> <p>Local staff time in the coordination and facilitation of new or updated ordinances.</p>
	Technical/ Engineering Assistance		\$ 50,000			<p>Activity will include technical site visits, site assessment, surveys, preliminary analysis and design, final design, construction supervision, installation, on-site installation oversight and inspection, and completion of project's as-built details.</p> <p>Funds may be used pay local SWCD or to contract with a third-party consultant or LGU engineer for technical/engineering assistance.</p> <p>Projects will be designed according to the following technical standards: USDA Field Office Technical Guide, MPCA Stormwater Manual, MN Urban Small sites BMP manual, and applicable local, state and federal regulations. Design standards for all practices will include specifications for operation and maintenance for the effective life of the practices, including an inspection schedule and procedure.</p>
SwQual-1, SwQual-8, SwQual-21, H-8	Planning and Assessments (SWA)	Complete 3 sub-watershed assessments, 1-2 culvert inventories completed	\$ 104,418			<p>Funding will focus on the 6 action items identified in the Plan; SwQual-8, 16, 21, SwQuan-7 and E-1, 5. Prioritized of assessments will be determined through watershed staff discussions. Studies to be completed by existing staff members or qualified consultants.</p> <p>Initial funding will be targeted to: an update to the Ann Lake feasibility study, sub-watershed assessments for Pokegama Lake and priority streamrivers and culvert inventories.</p>
SwQual-9	Ag. Practices (includes grazing components, fence, etc.)	40-50 # P reduced	\$ 80,131	\$50,033	25% landowner match, Federal projects	<p>Provide cost share for implementing structural BMP's (include but not limited to: prescribed grazing component practices and erosion control practices).</p> <p>NRCS or other BWSR approved standards will be followed for all practices installed. Local staff with Board support will establish cost share rates and policies which will be sent to BWSR for review.</p>
SwQual-27	Livestock Waste Mgmt.	0-1 livestock BMP's installed	\$ 30,702	\$7,675		<p>Provide cost share for implementing structural BMP's (include but not limited to: livestock exclusions, feedlot improvements, manure storage and manure pit closures).</p> <p>NRCS or other BWSR approved standards will be followed for all practices installed. Local staff with Board support will establish cost share rates and policies which will be sent to BWSR for review.</p>

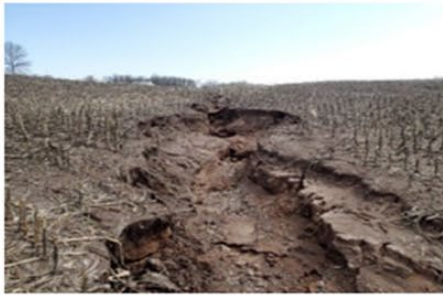
Action ID	E-Link Category	1st Biennial Outcomes	Grant Budget (WBIF - 2 yr.)	Match (need 10%)	Match Source	Activity Description
SwQual-11, SwQual-22, E-6	Non-structural Mgmt. Practices	0-2 NMP completed in priority lakes drainage area, TSS reduced by 120-200 Tons	\$ 20,884	\$35,221	25% landowner match, Federal projects	Flat-rate cost share will be provided to implement non-structural agricultural best management practices (include but not limited to: tillage and residue management, cover crops, nutrient management, prescribed grazing and conversion to perennial crops). NRCS or other BWSR approved standards will be followed for all practices installed. Local staff with Board support will establish cost share rates and policies which will be sent to BWSR for review.
SwQual-24; E-2	Streambank or Shoreland Protection - Structural	TSS reduced by 70-90 Tons	\$ 109,255	\$37,314	25% landowner match, Federal projects	Provide cost share for implementing structural BMPs (include but not limited to: shoreland restoration (erosion control), rock rip-rap, alternative side intakes and water and sediment control basins). NRCS or other BWSR approved standards will be followed for all practices installed. Local staff with Board support will establish cost share rates and policies which will be sent to BWSR for review.
SwQual-6; LC-8; SwQual-8; H-14, 17	Streambank or Shoreland Protection - Non-Structural	TP reduced by 15 #; 300-400 Lin. Ft. buffers installed or intact, 0-2 rain gardens installed; 500-1,000 ft of buffers (5-10 projects); 1-2 plantings installed (native veg./habitat);	\$ 58,140	\$24,535	25% landowner match, Federal projects	Provide cost share for implementing non-structural BMPs (include but not limited to: shoreland protection, buffers, filter strips, coir log/willow wattle and native plantings). NRCS or other BWSR approved standards will be followed for all practices installed. Local staff with Board support will establish cost share rates and policies which will be sent to BWSR for review.
LC-1, LC-2	Forestry Practices	800-1,000 acres with planned (FSP), 150 acres with forestry BMP's installed	\$ 38,287	\$19,572	25% landowner match, Federal projects	Staff time in the marketing and project development through installation of forestry BMPs. Staff time also for the writing of Forest Stewardship Plans (FSP). Local staff with Board support will establish cost share rates and policies which will be sent to BWSR for review.
Gw-4	Groundwater	3-5 wells sealed	\$ 1,740	\$870		Provide cost share for implementing structural BMPs (include but not limited to: well sealing practices). NRCS or other BWSR approved standards will be followed for all practices installed. Local staff with Board support will establish cost share rates and policies which will be sent to BWSR for review.
SwQual-13	Urban Stormwater Practices	TP reduced by 2-4 #/yr.	\$ 5,221	\$1,305		Provide cost share for implementing structural urban BMPs (include but not limited to: rain gardens, water storage and filtration practices). NRCS or other BWSR approved standards will be followed for all practices installed. Local staff with Board support will establish cost share rates and policies which will be sent to BWSR for review.
SwQual-5 & 5; SwQual-15	Wetland Restoration / Creation	1-3 acres restored, TP reduced by 50-250#	\$ 17,403	\$4,351		Provide cost share for implementing structural BMPs (include but not limited to: wetland restoration and water storage practices). NRCS or other BWSR approved standards will be followed for all practices installed. Local staff with Board support will establish cost share rates and policies which will be sent to BWSR for review.
SwQual-26, Gw-9	Subsurface Sewage Treatment System (SSTS)	5-10 septic updated/compliant	\$ 70,158			Provide cost share for upgrading or new Subsurface Sewage Treatment System (SSTS) based on BWSR policies for funding SSTS practices. SSTS approved standards will be followed for all practices installed. Local staff with Board support will establish cost share rates and policies which will be sent to BWSR for review.
Totals			\$ 993,770	\$180,876		
			Grant	Match		Needed Match \$102,447

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Addendum A – Visual Aid for Goaled Practices, Measurable Results & Priority Locations

Erosion Control

Measurable: 40-50 # Phosphorus Reduced



Nutrient Management
Measurable: 0-2 plans completed



Stormwater
Practices:
Rain Gardens

- Gather runoff
- Allows for Slower Infiltration
- Great for problem areas with high runoff

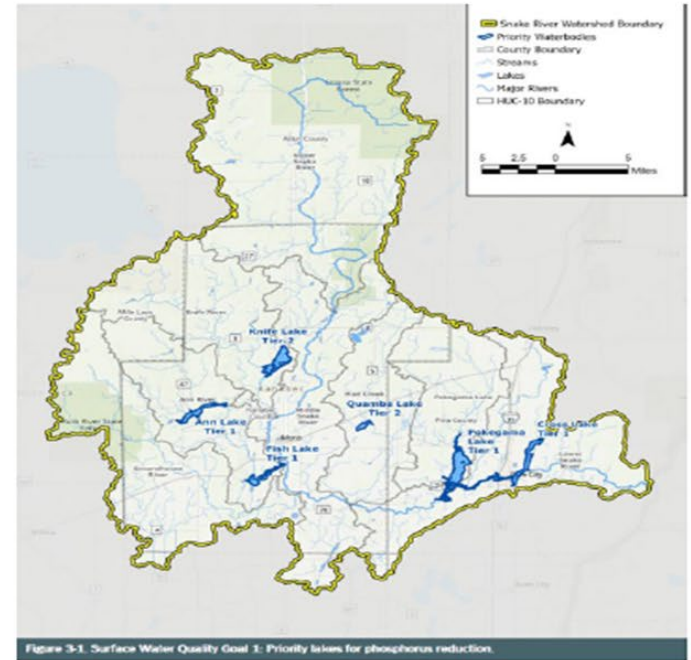


Figure 3-1. Surface Water Quality Goal 1: Priority lakes for phosphorus reduction.

Surface Water Quality:

Shoreland Restoration
Ag. Practices
Nutrient Management
Wetland Restoration
Education / Outreach

Stormwater Practices: Cross & Pokegama

Stormwater Measurable:

Total Phosphorus reduced by 2-4 # / year

Cover Crops

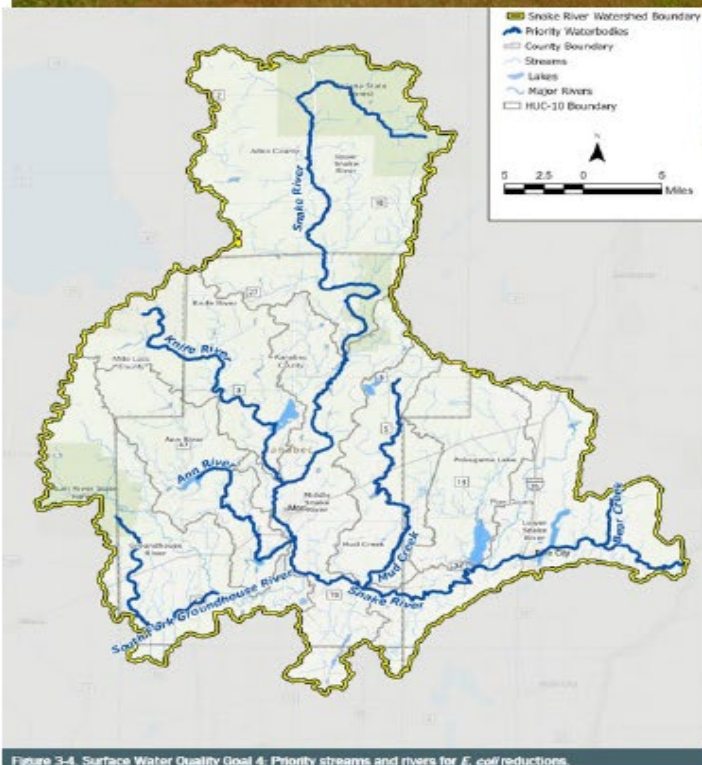


Surface Water Quality:

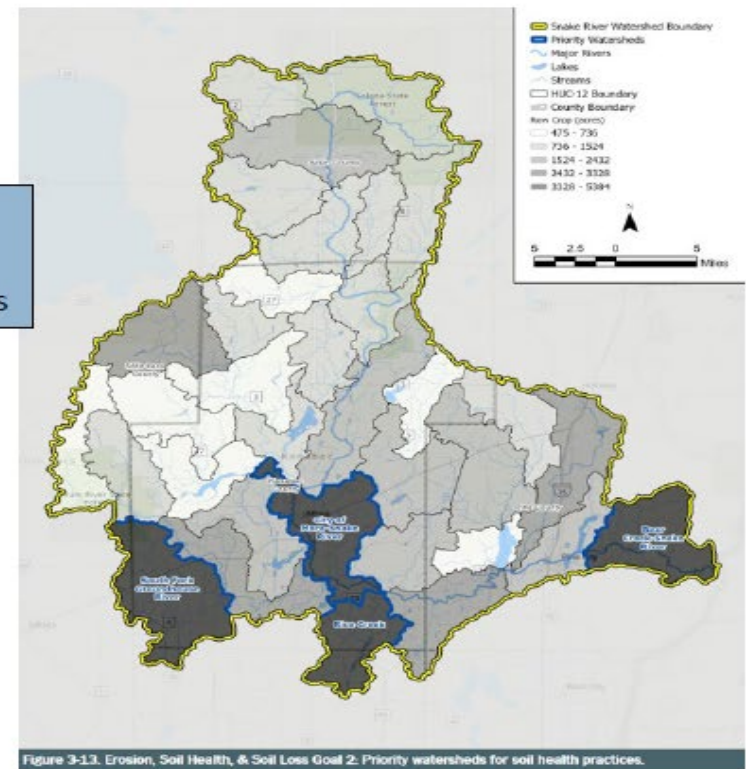
Livestock Waste
SSTS

Soil Health Practices (Ann,
Groundhouse & Mud Rivers)

Education / Outreach



Measurables: Total Suspended Solids reduced by 120-200 Tons





Filtered Runoff Control

Surface Water Quality:
 Livestock Waste
 SSTS
 Soil Health Practices (Ann, Groundhouse & Mud Rivers)
 Education / Outreach



Measurable: 0-1 livestock BMPs installed

Groundwater:
 SSTS
 Seal Unused Wells
 Education / Outreach

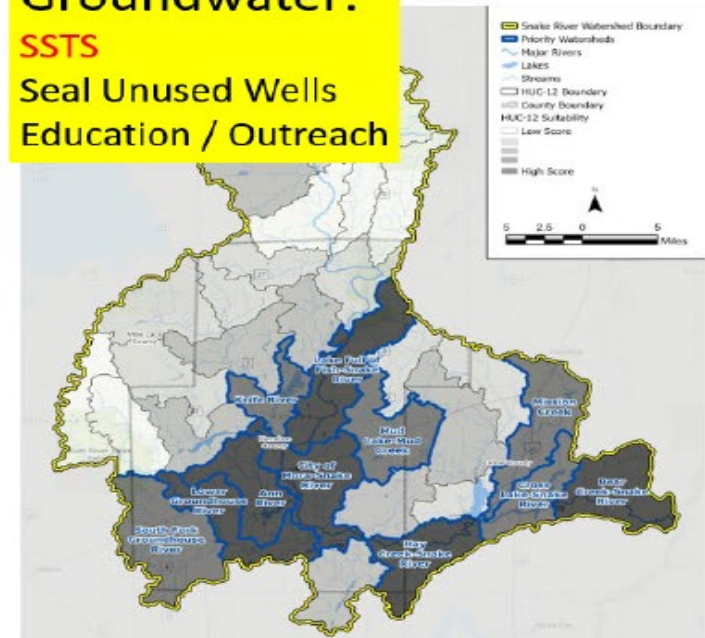


Figure 3-11. Drinking Water & Groundwater Goal 1. Priority watersheds for nitrate contamination prevention, identified through an analysis of geospatial data.

Subsurface Sewage Treatment System (SSTS)

Measurable: 5-10 Installed



Forestry Practices

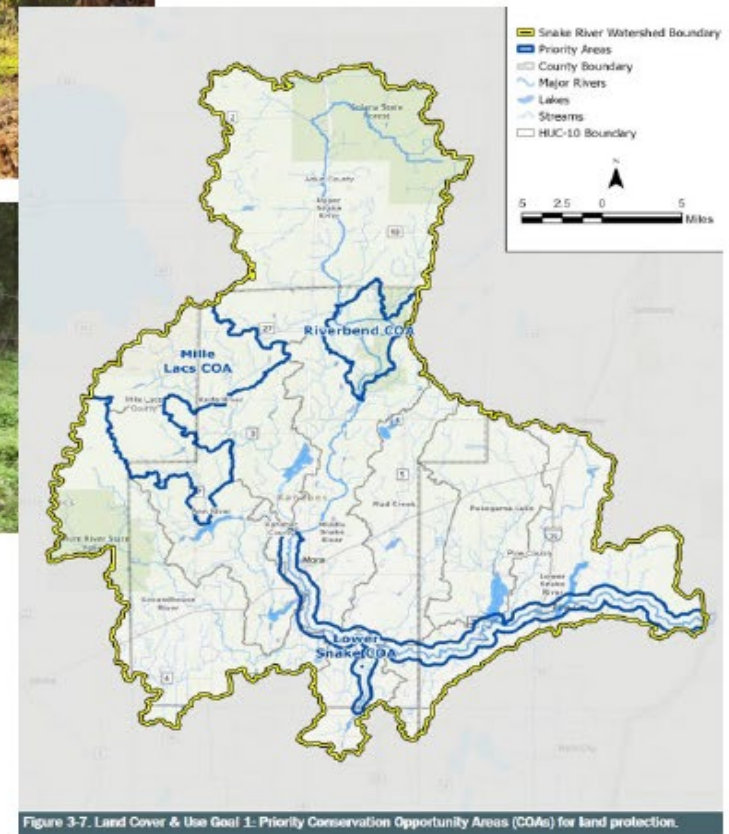


Figure 3-7. Land Cover & Use Goal 1: Priority Conservation Opportunity Areas (COAs) for land protection.

Land Cover / Use:
Forestry Practices
Education / Outreach

Measurables: 800-1,000 acres planned, Forest Stewardship
150 acres forestry BMPs installed

Water Storage

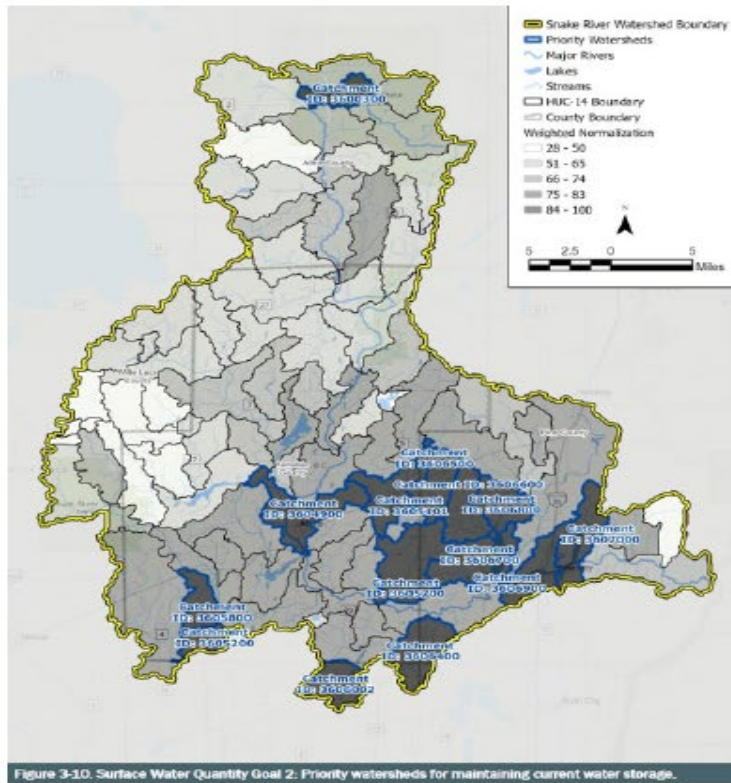


Figure 3-10. Surface Water Quantity Goal 2: Priority watersheds for maintaining current water storage.



Figure 3-1. Surface Water Quality Goal 1: Priority lakes for phosphorus reduction.

Measurable:
 1-2 acres restored

Surface Water Quality:
 Shoreland Restoration
 Ag. Practices
 Nutrient Management
Wetland Restoration
 Education / Outreach
 Stormwater Practices: Cross & Pokegama

Shoreland Restoration

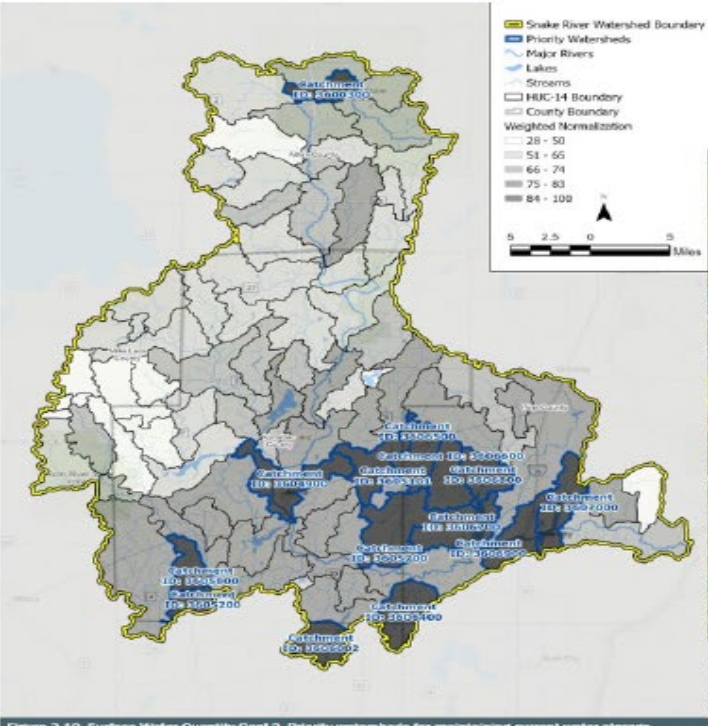


Figure 3-10. Surface Water Quantity Goal 2: Priority watersheds for maintaining current water storage.

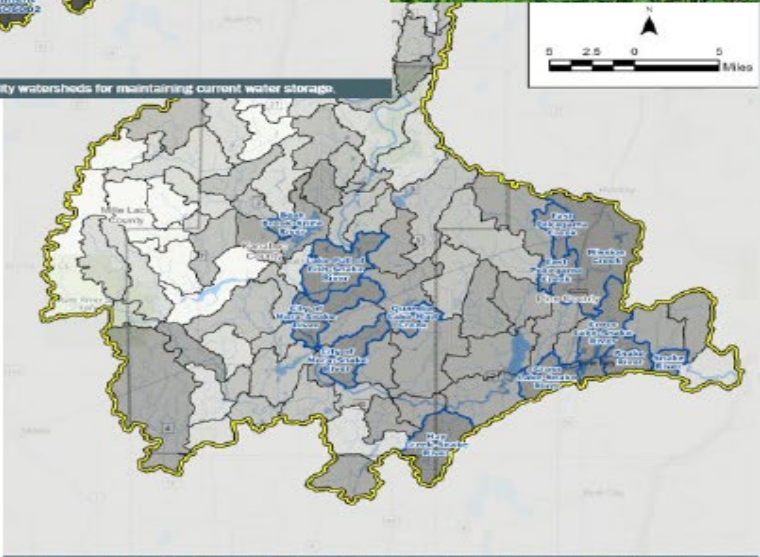
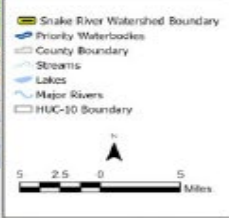


Figure 3-12. Erosion, Soil Health & Soil Loss Goal 1: Priority watersheds for protection from erosion.

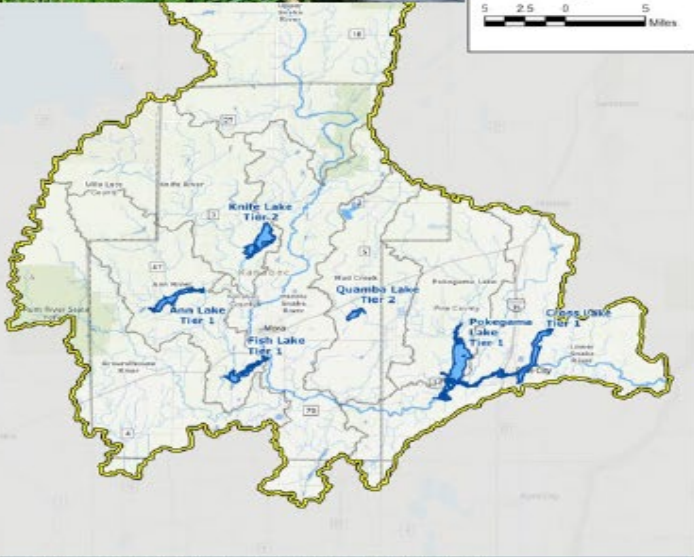


Figure 3-1. Surface Water Quality Goal 1: Priority lakes for phosphorus reduction.

Surface Water Quantity:
Wetland Restoration,
Shoreland Restoration
(also Mora & Pine City)
Education / Outreach

