

Mississippi River – Brainerd

One Watershed One Plan

Technical Advisory Committee Meeting Report

November 1, 2022

Attendees

In Person: Bethany Chaplin (Crow Wing SWCD), Janet Smude (Aitkin SWCD), Kaysie Maleski (Aitkin SWCD), Brinks (TSA 8), Chris Pence (BWSR), Jeff Hrubes (BWSR), Todd Holman (TNC), Bonnie Finnerty (MPCA), Chad Anderson (MDH), Tad Erickson (Region 5), Moriya Rufer (Houston Engineering)

Online: Lance Chisholm (Morrison SWCD), Chad Weiss (Mille Lacs Band), Deja Anton (Todd SWCD), Tim Terrill (MHB), Perry Bunting (Mille Lacs Band), Jeff Weiss (DNR), Melissa Barrick (Crow Wing SWCD)

Meeting Purpose

The purpose of this Technical Advisory Committee (TAC) meeting was to finalize resource prioritization.

Timeline

This graphic is a simplified version of the overall timeline. This timeline is a general guide, and the process can be adapted to fit as we go.



Resource Prioritization

Moriya Rufer presented the draft Resource Prioritization that was developed by the Steering Committee. This is the process to narrow down which lakes, streams, and groundwater areas to focus implementation in the next 10 years to make measurable progress. Data/criteria were used to narrow down which resources have the highest quality and the highest risk. The draft prioritization is attached to the end of this meeting report.

Vision Statement

A vision statement is an inspirational statement of an idealistic emotional future of a company or group. Visioning brainstorming from the Citizen Advisory Committee and the Technical Advisory Committee was drafted into three vision statement options. The group was invited to choose their favorite of the three and add comments/revisions for what should be changed. This feedback will be incorporated into a new draft that will be shown at the next Technical Advisory Committee meeting.

Next Steps

All meetings are held at the Crow Wing County Land Services building.

- **TAC & PC November 22, 1:00-4:00-pm**
 - Resource Prioritization
 - Draft Goals



DRAFT Resource Prioritization

In a perfect world, there would be enough time and funding to work on everything in the watershed. In reality, both time and funding are limited. Therefore, this planning process aimed to prioritize resources and determine where to focus the most time and funding in the next ten years. These priorities are supported by data and are places where measurable change can be made.

This draft prioritization was developed in October by the Steering Committee (SWCD staff, BWSR Board Conservationist and Clean Water Specialist, and consultant). The next pages show draft prioritization for the following resources.

- Lakes
- Streams
- Groundwater

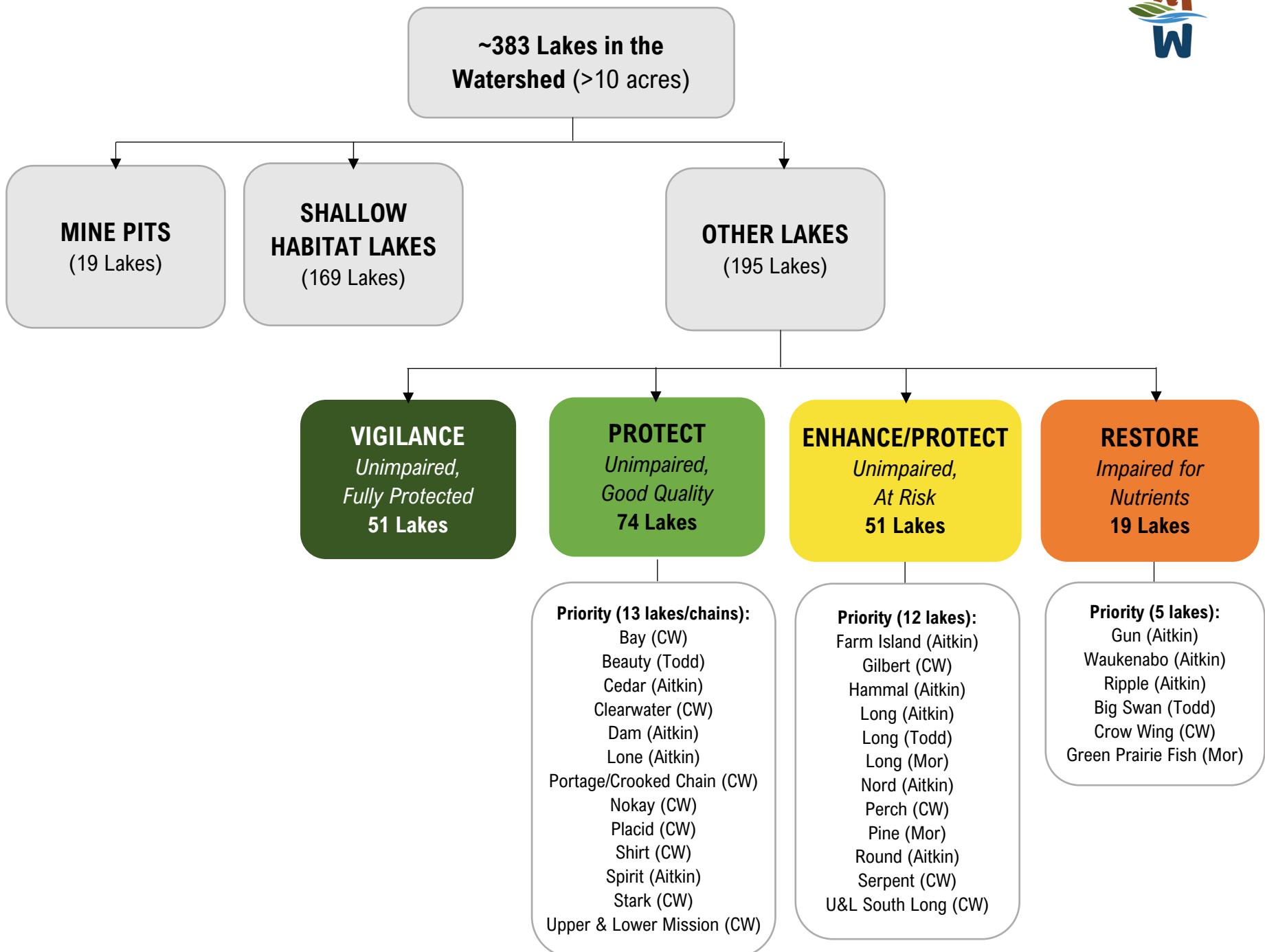


DRAFT Lake Prioritization

Lakes in the watershed were separated into six categories based on the descriptions in Table 1. Then they were prioritized within each category due to the criteria in Table 1.

Table 1. Lake prioritization process.

Management Focus	Description	Lake Prioritization
VIGILANCE	Lakes that are sufficiently protected: <ul style="list-style-type: none">• >75% minor watershed permanent protection.	None
PROTECT	Lakes generally in good condition: <ul style="list-style-type: none">• improving or no water quality trend, and/or• 0-24% minor watershed disturbance (agriculture, development, urban, or mining), and/or• <75% minor watershed permanent protection.	Lakes that had higher or highest phosphorus sensitivity (<i>Risk</i>) and high or outstanding biological significance (<i>Quality</i>).
ENHANCE	Lakes at anthropogenic risk: <ul style="list-style-type: none">• degrading water quality trends and/or,• 25-60% minor watershed disturbance (agriculture, development, urban, or mining) and/or,• nearly impaired.	Lakes over 300 acres that had higher or highest phosphorus sensitivity (<i>Risk</i>) and high or outstanding biological significance (<i>Quality</i>).
RESTORE	Lakes impaired for nutrients.	Barely impaired lakes and local priorities.
SHALLOW HABITAT LAKES	Lakes classified as shallow or Natural Environment lakes.	Wild Rice and Habitat Priorities.
MINE PITS	Lakes that were formerly mine pits.	Local Priorities.



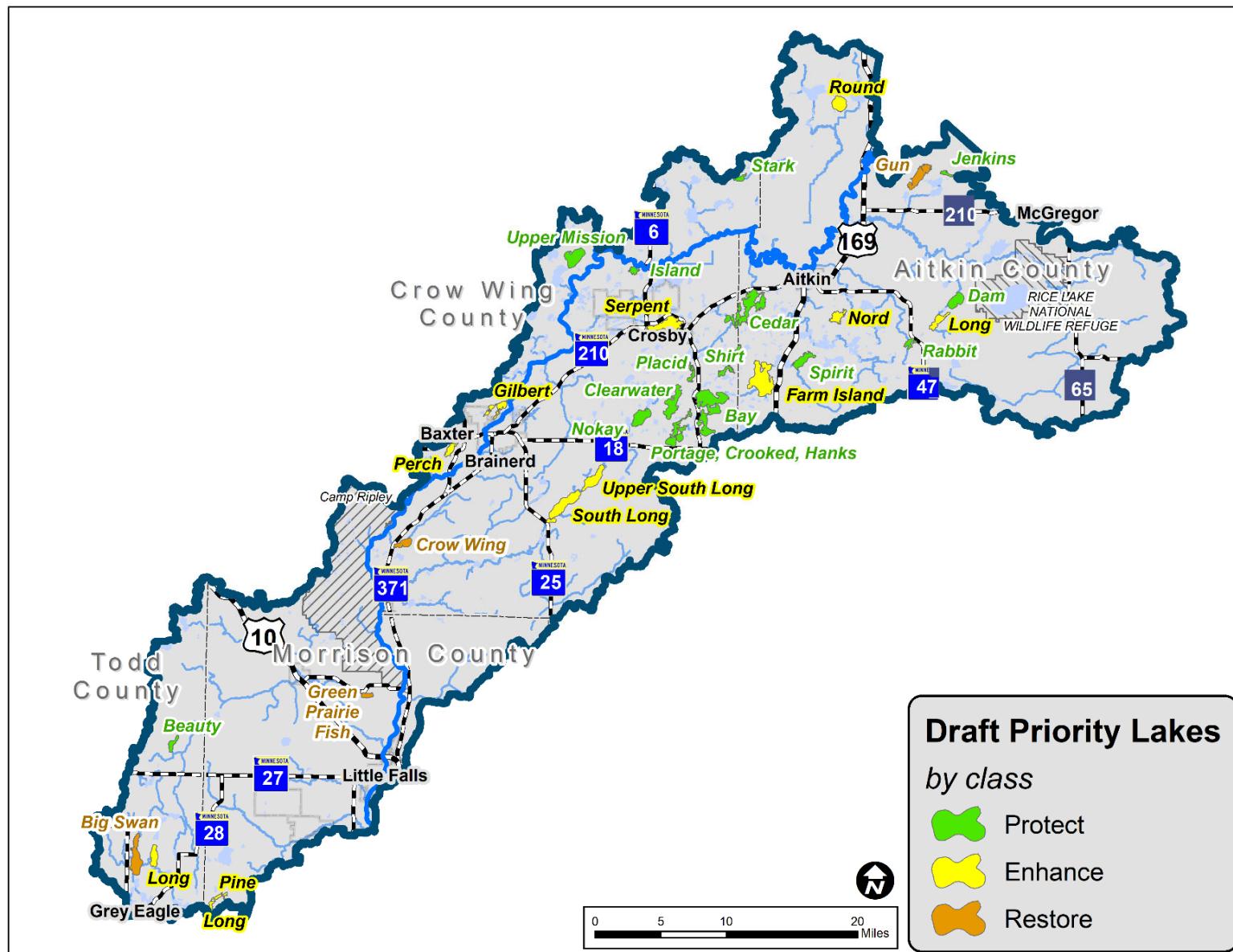


Figure 1. Map of lake prioritization.



DRAFT Stream Prioritization

Streams in the watershed were separated into three categories based on the descriptions in Table 2.

Table 2. Stream prioritization.

Management Focus	Description
PROTECT	Unimpaired streams.
ENHANCE	Streams with biological and/or dissolved oxygen impairments.
RESTORE	Streams impaired for <i>E.coli</i>, TSS, Turbidity.

The Nokissippi River is the only river in the watershed with exceptional use standards, so can be a priority for protection. Other streams will be prioritized as goals are developed.

The Mississippi River will likely be analyzed separately and have it's own goals.

The management focus for each stream can be seen in Figure 2. Individual listings for each stream reach can be seen in Table 3.

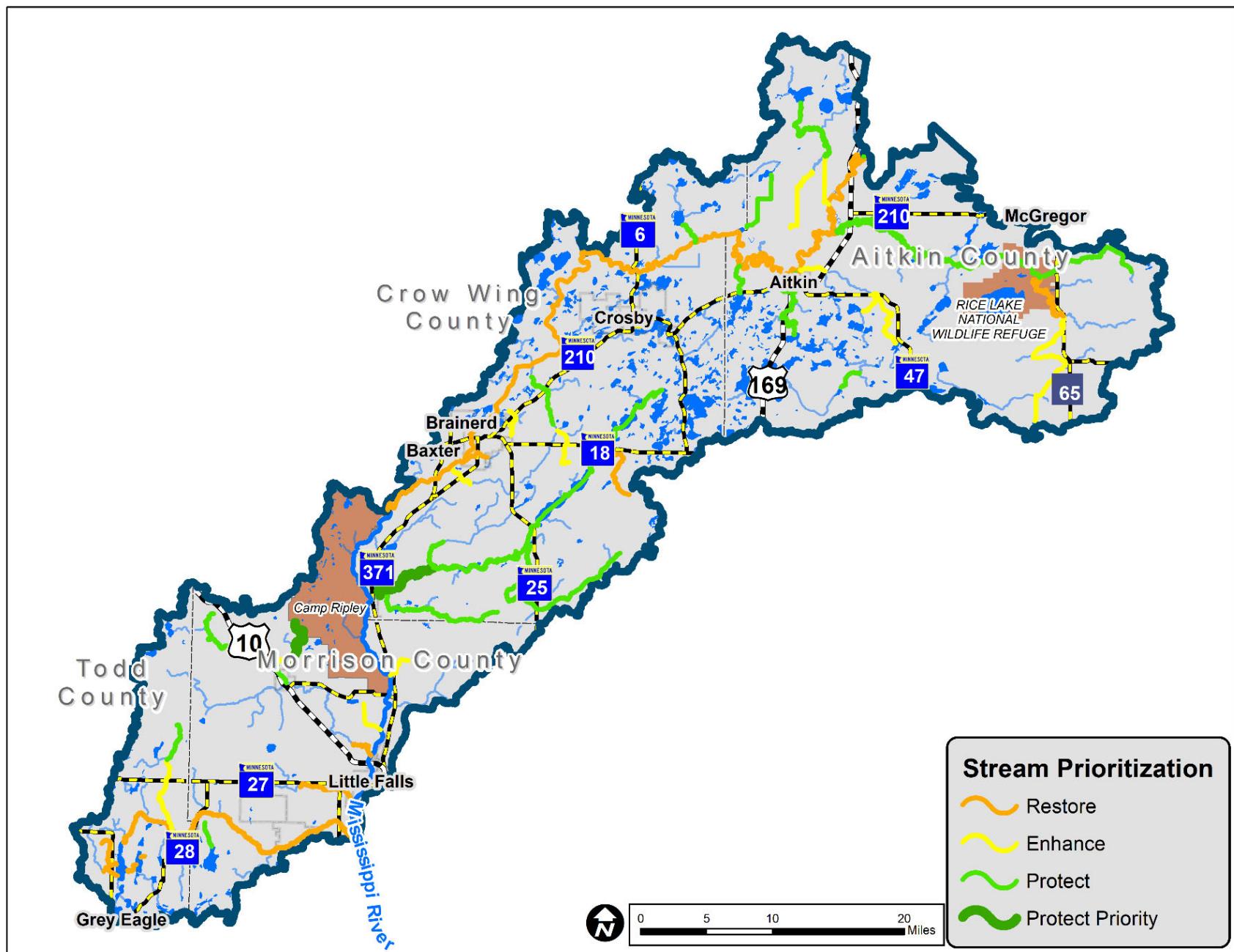


Figure 2. Stream prioritization (see Table 3 for individual stream reach assessments).



Table 3. Individual stream reach assessment information.

Focus	Water body name	Water body description	AUID	County	Pollutant or stressor
RESTORE	Mississippi River	Willow R to Pine R	07010104-655	Aitkin	Turbidity
RESTORE	Mississippi River	Pine R to Crow Wing R	07010104-656	Crow Wing	Total suspended solids
RESTORE	Swan River	Headwaters (Big Swan Lk) to Mississippi R	07010104-502	Morrison	Dissolved oxygen, Escherichia coli (E. coli)
RESTORE	Little Elk River	T129 R30W S1, north line to Mississippi R	07010104-521	Morrison	Escherichia coli (E. coli),
RESTORE	Pike Creek	T129 R30W S21, west line to Mississippi R	07010104-522	Morrison	Escherichia coli (E. coli)
RESTORE	Unnamed creek	Headwaters to Big Swan Lk	07010104-626	Todd	Escherichia coli (E. coli)
RESTORE	Schwanke Creek	Unnamed cr to Big Swan Lk	07010104-627	Todd	Escherichia coli (E. coli),
RESTORE	Unnamed creek	Long Lk (77-0027-00) to Big Swan Lk	07010104-629	Todd	Escherichia coli (E. coli)
RESTORE	Unnamed creek	Headwaters to Long Lk	07010104-632	Todd	Escherichia coli (E. coli)
RESTORE	Hay Creek	Headwaters to Grave Lk	07010104-645	Crow Wing	Escherichia coli (E. coli)
RESTORE	Rice River	Section 5 Cr to Wakefield Bk	07010104-649	Aitkin	Dissolved oxygen, Escherichia coli (E. coli), Fish bioassessments
RESTORE	Buffalo Creek (Little Buffalo Creek)	Wright St to Mississippi R	07010104-695	Crow Wing	Fish bioassessments, Escherichia coli (E. coli), Benthic macroinvertebrates bioassessments
ENHANCE	Rice River	Headwaters (Porcupine Lk 01-0066-00) to Section 5 Cr	07010104-505	Aitkin	Dissolved oxygen, Fish bioassessments
ENHANCE	Little Swan River	Spring Br to Swan R	07010104-570	Todd	Fish bioassessments
ENHANCE	Whiteley Creek	Headwaters to Rice Lk (18-0145-00)	07010104-589	Crow Wing	Benthic macroinvertebrates bioassessments
ENHANCE	Buffalo Creek	Unnamed cr to Unnamed cr	07010104-610	Crow Wing	Benthic macroinvertebrates bioassessments
ENHANCE	Sisabagamah Creek	Unnamed cr to Mississippi R	07010104-659	Aitkin	Benthic macroinvertebrates bioassessments
ENHANCE	Sisabagamah Creek	Sisabagamah Lk to Rabbit Cr	07010104-677	Aitkin	Fish bioassessments
ENHANCE	Unnamed creek	Headwaters to Sand Cr	07010104-679	Crow Wing	Benthic macroinvertebrates bioassessments
ENHANCE	Unnamed creek	Unnamed ditch to Mississippi R	07010104-681	Morrison	Fish bioassessments
ENHANCE	Hay Creek	Unnamed cr to Little Elk R	07010104-682	Morrison	Benthic macroinvertebrates bioassessments



Focus	Water body name	Water body description	AUID	County	Pollutant or stressor
ENHANCE	Unnamed creek	Unnamed outlet to Mississippi R	07010104-684	Morrison	Benthic macroinvertebrates bioassessments, Dissolved oxygen
ENHANCE	Rabbit Creek	Rabbit Lk to Sisabagamah Cr	07010104-688	Aitkin	Fish bioassessments
ENHANCE	Unnamed ditch (L. Willow River Diversion)	Little Willow Ditch old channel to Mississippi R	07010104-691	Aitkin	Benthic macroinvertebrates bioassessments
ENHANCE	Little Willow River Old Channel	Unnamed ditch to Flood Diversion Channel	07010104-701	Aitkin	Fish bioassessments
PROTECT	Willow River	Moose-Willow R ditch to Mississippi R	07010103-748		neither
PROTECT	Nokasippi River	Headwaters (Clearwater Lk 18-0038-00) to Daggett Bk	07010104-509	Crow Wing	Nearly one AQL
PROTECT	Nokasippi River	Daggett Bk to Hay Cr	07010104-510	Crow Wing	Nearly one AQL
PROTECT	Nokasippi River	Hay Cr to Little Nokasippi R	07010104-511	Crow Wing	Nearly one AQL
PROTECT	Little Elk River	Headwaters to S Br Little Elk R	07010104-529	Crow Wing	neither
PROTECT	Little Nokasippi River	Headwaters to Nokasippi R	07010104-532	Crow Wing	Nearly one AQL
PROTECT	Daggett Brook	Headwaters to Nokasippi R	07010104-534	Crow Wing	"Nearly" Aquatic Life
PROTECT	Wakefield Brook	Headwaters to Rice R	07010104-536	Aitkin	Nearly both AQL
PROTECT	Unnamed ditch	French Lk to Rice R	07010104-543	Aitkin	Nearly one AQL
PROTECT	Sand Creek	T45 R30W S13, south line to Mississippi R	07010104-580	Aitkin	Nearly one AQL
PROTECT	Cedar Creek	Cedar Lk to Mississippi R	07010104-641	Aitkin	neither
PROTECT	Ripple River	Raspberry Cr to Mississippi R	07010104-660	Aitkin	Nearly one AQL
PROTECT	Ripple River	Hanging Kettle Lk to Raspberry Cr	07010104-661	Aitkin	neither
PROTECT	Ripple River	Unnamed wetland (01-0394-00) to Lingroth Lk outlet	07010104-666	Aitkin	neither
PROTECT	Dean Brook	Dean Lk to Mississippi R	07010104-678	Aitkin	Nearly one AQL
PROTECT	Unnamed creek	Headwaters to Hay Cr	07010104-683	Aitkin	Nearly one AQL
PROTECT	Unnamed creek	Big Marsh (49-0160-00) to -94.621, 45.915	07010104-685	Aitkin	neither
PROTECT	Little Swan River	335th Ave to Spring Branch	07010104-687	Aitkin	Nearly one AQL
PROTECT	Little Willow River	Headwaters (Esquagamah Lk 01-0147-00) to Little Willow Diversion ditch	07010104-689	Aitkin	neither
PROTECT	Rice River	Wakefield Bk to Dam Bk	07010104-692	Aitkin	Nearly one AQL
PROTECT	Rice River	Wakefield Bk to Mississippi R	07010104-693	Aitkin	neither
PROTECT	Unnamed ditch	Blind Lk to Mississippi R flood diversion channel	07010104-697	Aitkin	Nearly one AQL
PROTECT	Hay Creek	-94.253 46.244 to Nokasippi R	07010104-699	Crow Wing	neither



DRAFT Groundwater Prioritization

Groundwater areas in the watershed were separated into two categories based on the descriptions in Table 4. Then they were prioritized within each category due to the criteria in Table 4.

Table 4. Stream prioritization.

Management Focus	Description	Groundwater Prioritization
PROTECT	Groundwater recharge value.	Protect forested land with the highest groundwater recharge value. Protect all Drinking Water Supply Management Areas (DWSMAs).
ENHANCE	Risk of nitrogen infiltration to the groundwater.	Implement practices that reduce nitrogen use such as nutrient management and irrigation water management in agricultural lands with the highest risk of nitrogen infiltrating the groundwater. Implement BMPs and land protection in high vulnerability Drinking Water Supply Management Areas (DWSMAs).

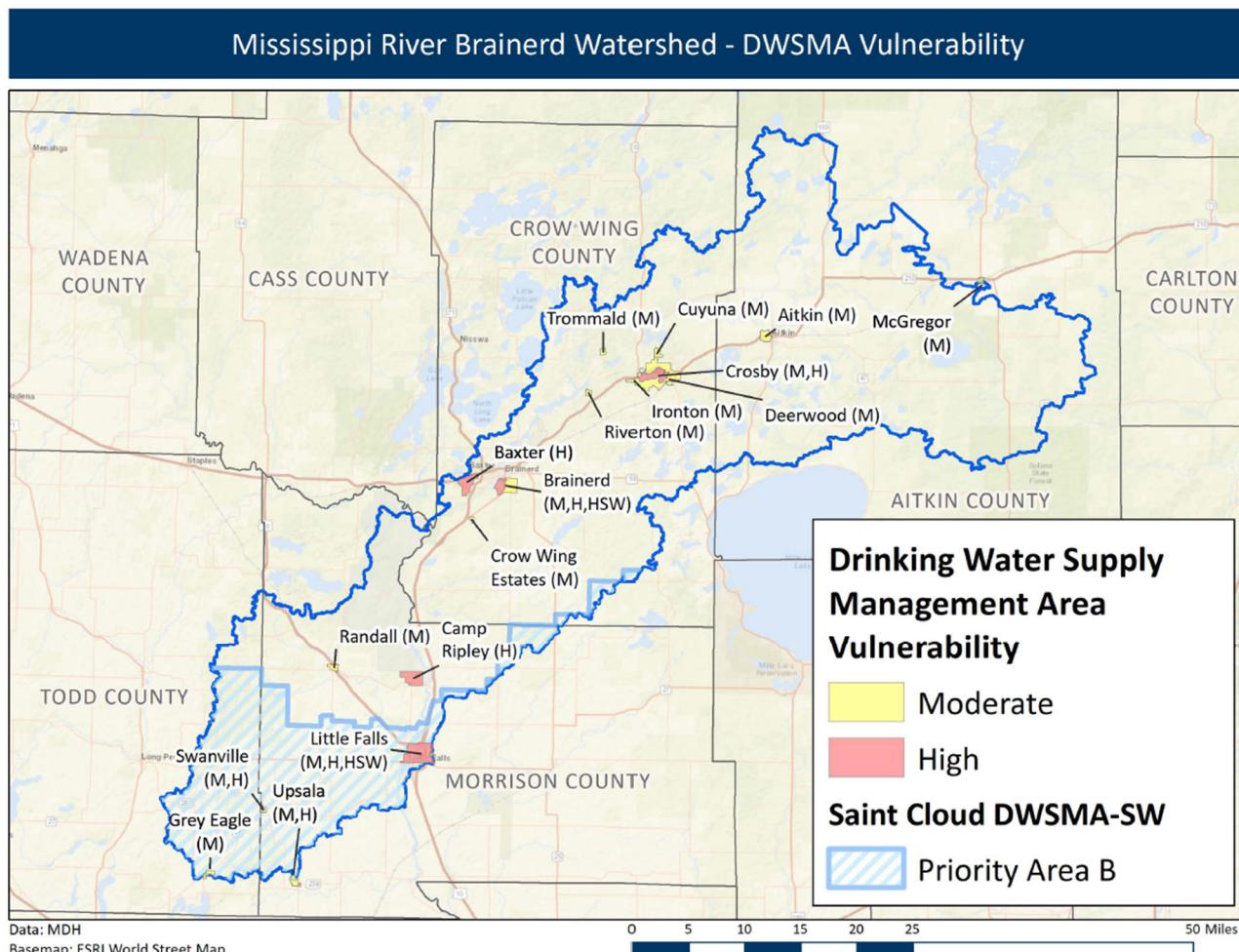


DWSMAs with high potential contaminant risk due to connection with surface water:

- Brainerd
- Baxter
- Crosby
- Little Falls

DWSMAs with high potential contaminant risk due to land use:

- Camp Ripley
- Swanville



Groundwater: Land Management and Protection Priorities

Priority areas for groundwater protection and enhancement based on risk of nitrogen infiltration and groundwater recharge value (Figure 3). Green areas are a priority for land protection and orange and brown areas are a priority for implementing best management practices to reduce nitrogen application such as nutrient management and irrigation water management.

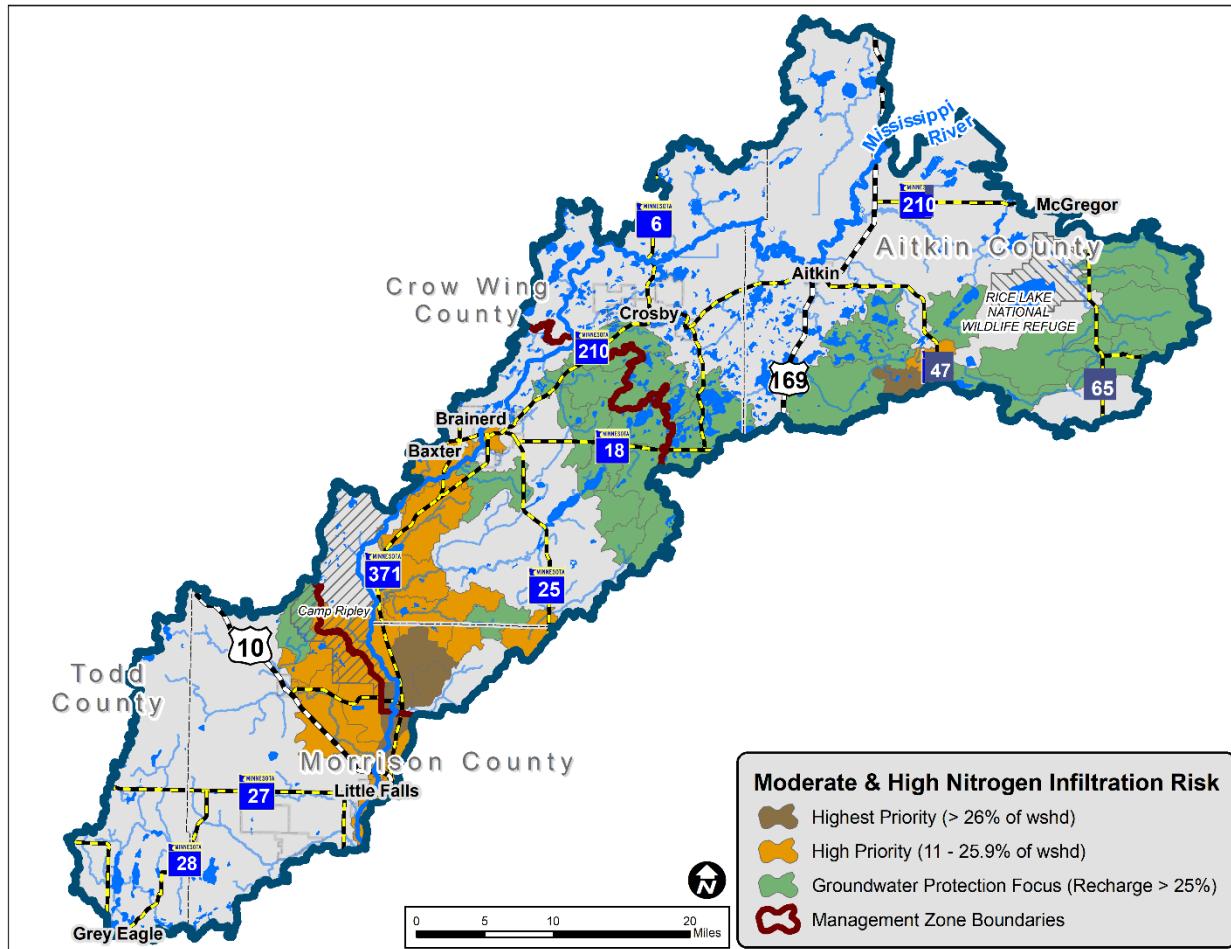


Figure 3. Groundwater priorities for management and protection.



Draft Vision Statements

1

As the gateway to “Up North” for the past thousands of years, we work to ensure that what draws people here to work and play remains sustainable for the next thousand years.

2

As the gateway to “Up North” for thousands of years, we work to safeguard what draws people here to work and play for the next thousand years.

3

As the gateway to “Up North”, we work to ensure harmony between society and nature for our collective well-being.

Which is your favorite:

Is anything missing?:
