



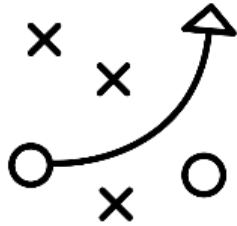
One Watershed, One Plan

**Julie Westerlund, Dan Steward, and Chris Pence – BWSR
Melissa Barrick – Crow Wing SWCD**

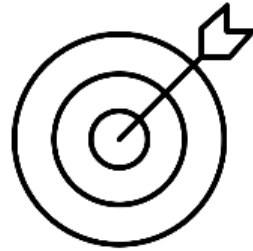
m BOARD OF WATER
AND SOIL RESOURCES

Lessard-Sams Outdoor Heritage Council

Agency Perspectives



Strategic



Targeted



Collaborative

What we will talk about today

“...planning and high level resource protection...”

The One Watershed, One Plan program

“...logical, common sense approaches that leverage multiple partners and funding sources...”

Upper Mississippi / Pine River watershed example

“...stacking quantifiable conservation benefits for clean water and habitat...”

Methodology for prioritizing and targeting private forest management



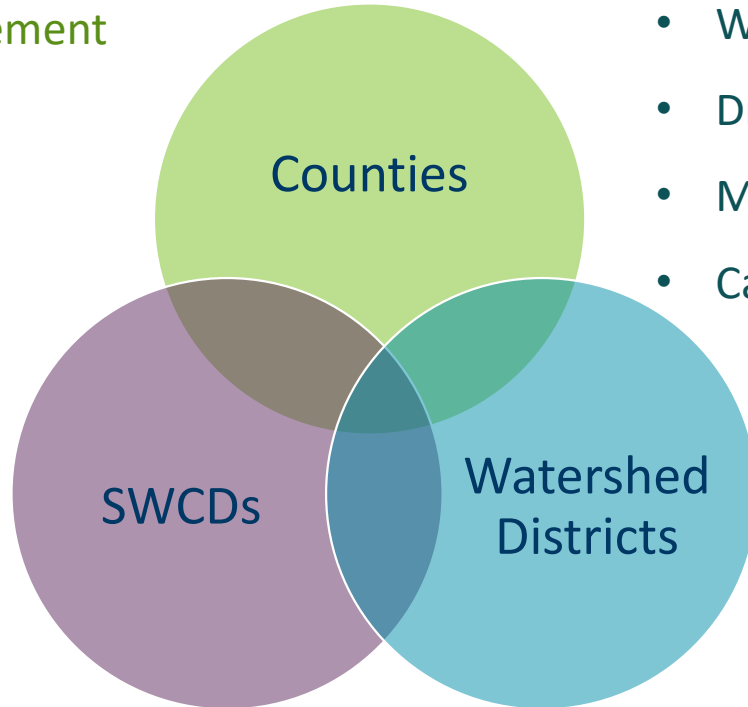
Program Vision



Develop local implementation plans that are prioritized, targeted and measurable, aligned with state strategies on major watershed boundaries.

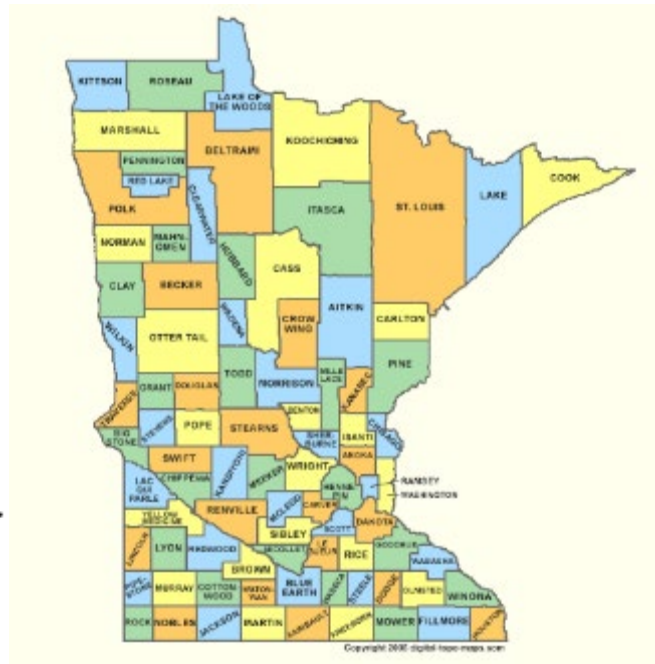
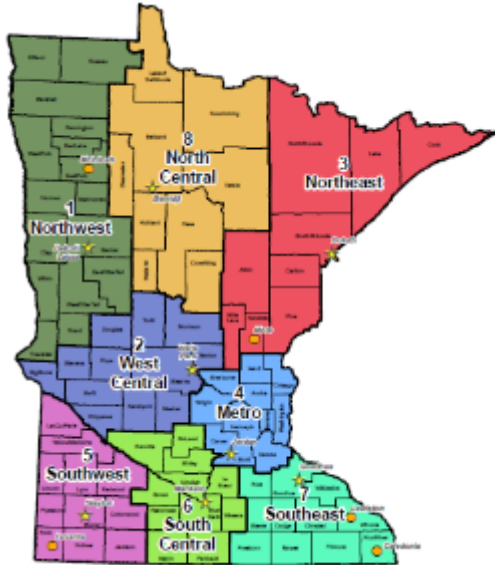
Local Government Conservation Delivery

- Regulations and land management
- Drainage
- Public Health
- Technical and financial help for conservation work on private land
- Can accept delegation of local ordinances and controls



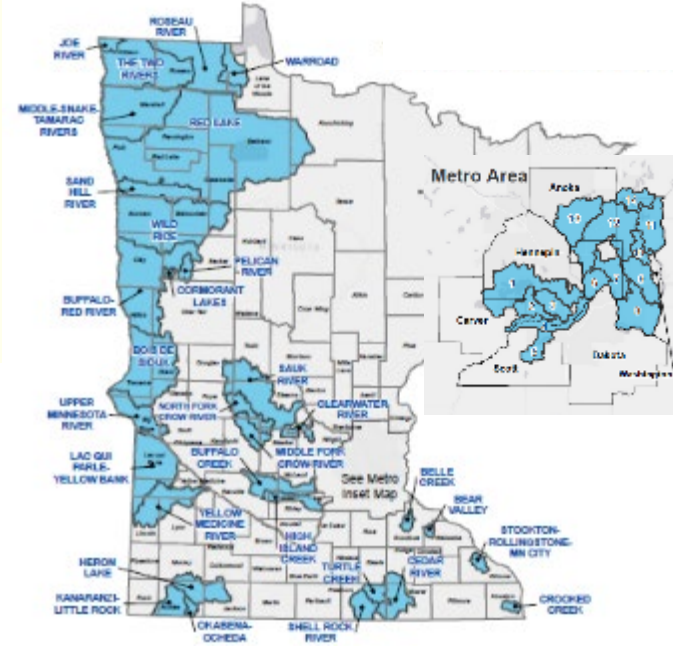
- Watershed management
- Drainage
- Monitoring
- Capital Projects

SWCDs



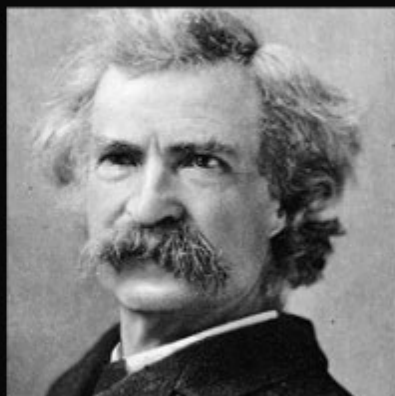
Counties

Watershed Districts





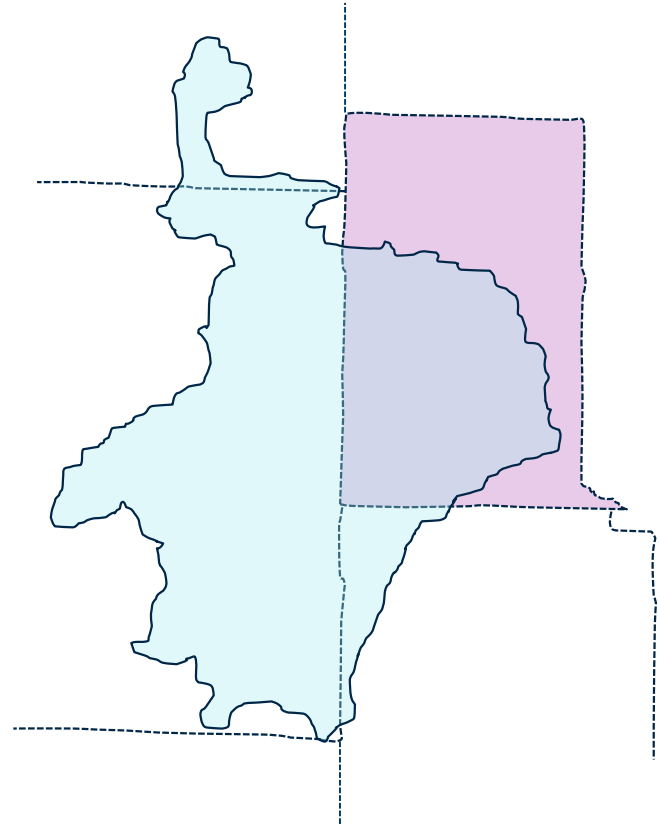
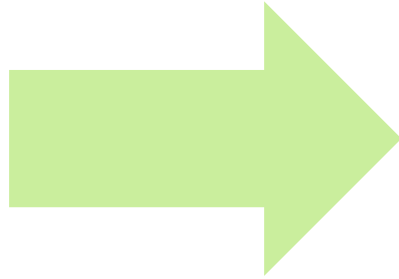
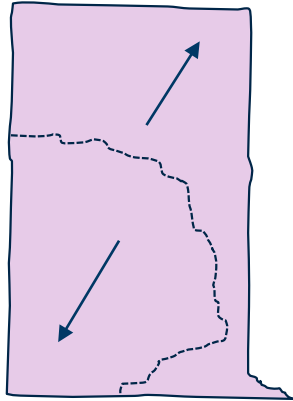




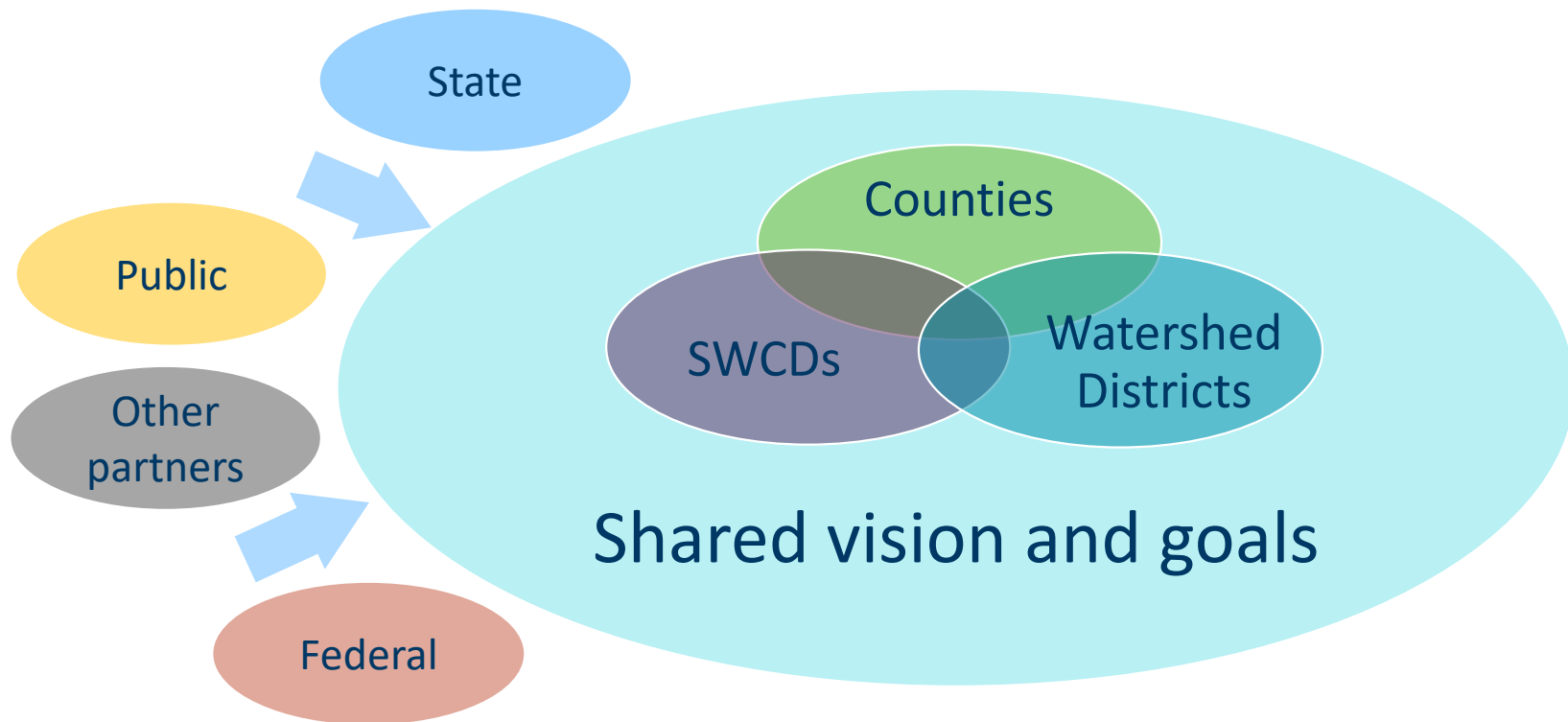
Whiskey is for drinking; water is
for fighting over.

~ Mark Twain

Evolution of Water Planning



Working Together to Manage Water



The Legacy Challenge



- We have limited resources
- Minnesotans expect to see measurable progress

State Strategies – Based in Data

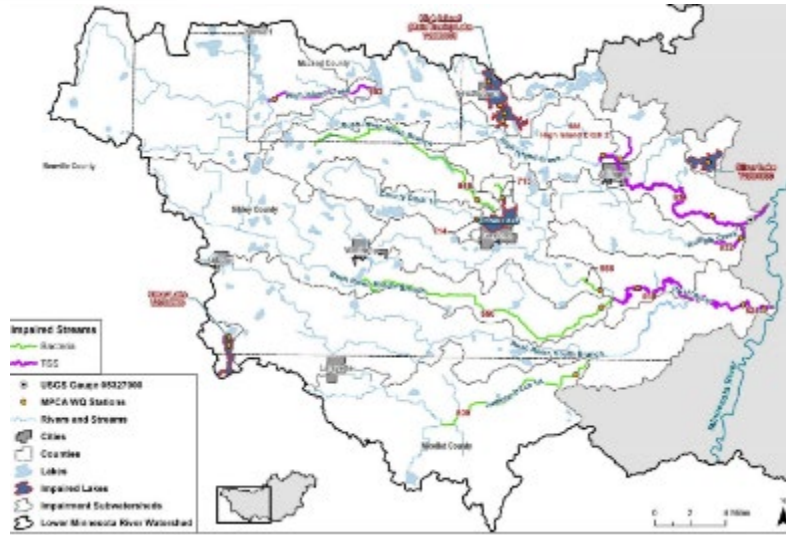




Planning links data to action



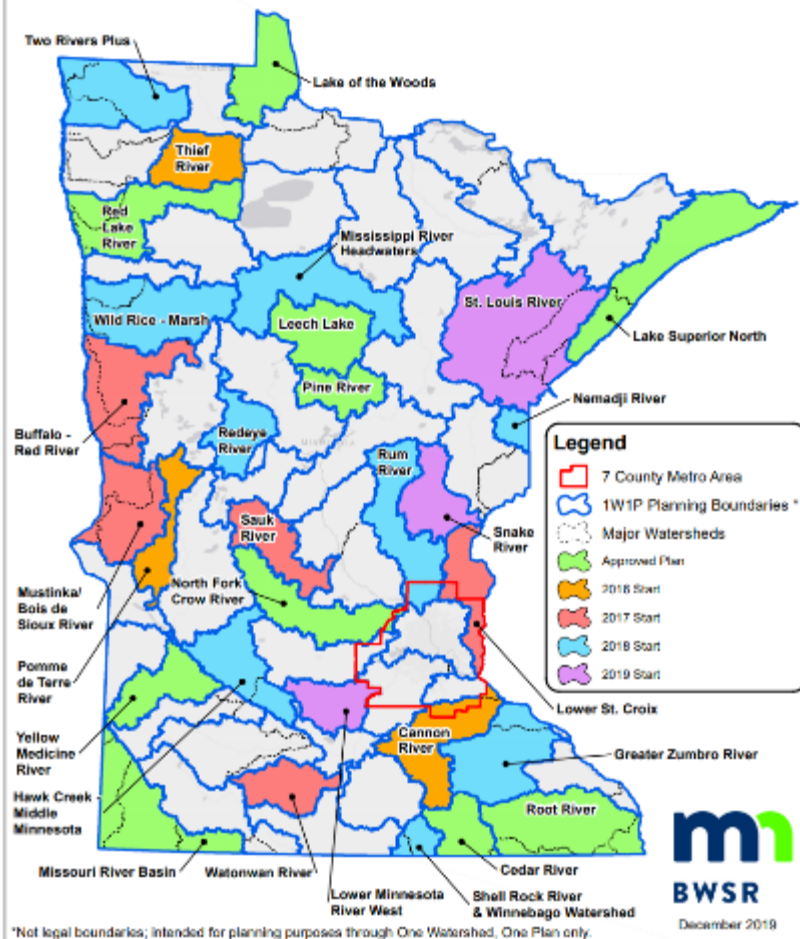
One Watershed One Plan





One Watershed One Plan

One Watershed, One Plan Participating Watersheds



*Not legal boundaries; intended for planning purposes through One Watershed, One Plan only.



December 2019

The plan is a story...

- Land and Water Resources Narrative
- Priority Resources and Issues
- Measurable Goals
- Targeted Implementation Schedule
- Plan Implementation Programs
- Plan Administration and Coordination

Who?

What?

When?

Where?

Why?

How?

How much?

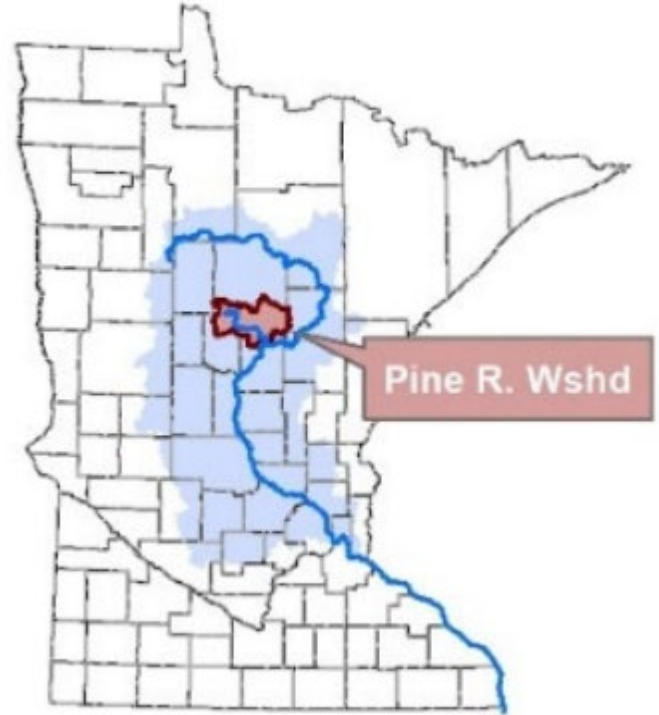
The 1W1P Approach

P
rioritize issues
and locations

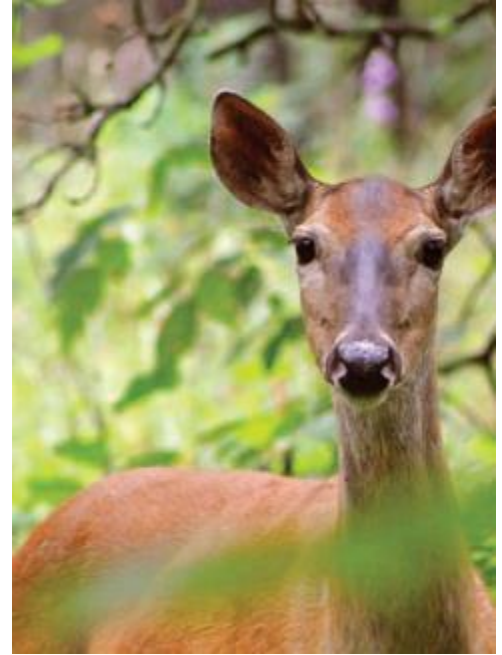
T
arget
implementation

M
easure
results

The Pine River Plan: A Habitat Focus



The Pine River Plan: A Habitat Focus



Woods and Water

THE ROOTS of OUR FISHING LEGACY



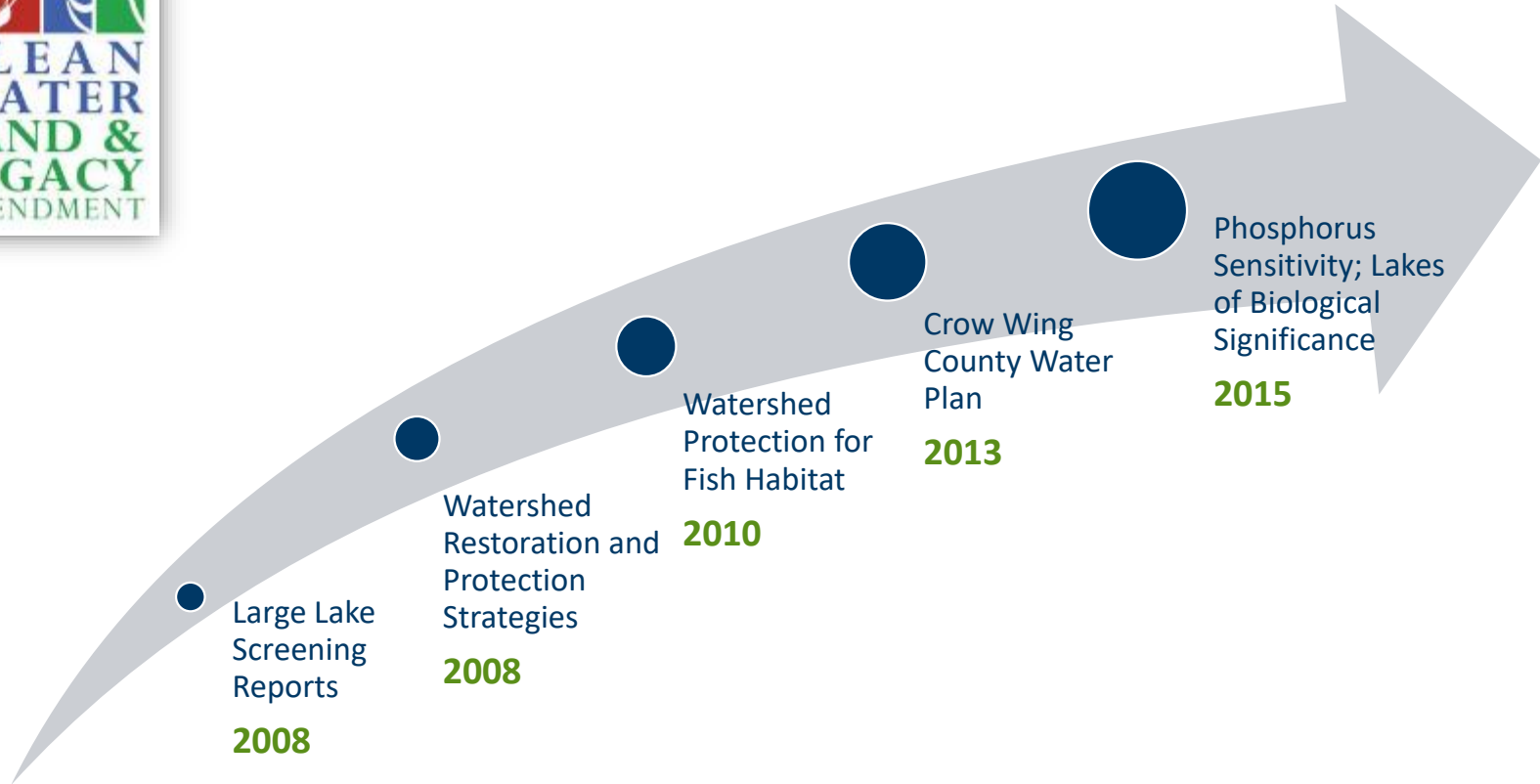
ARE FOUND IN FORESTS

Forests produce clean water. Lakes teeming with fish are dependent on forests teeming with trees

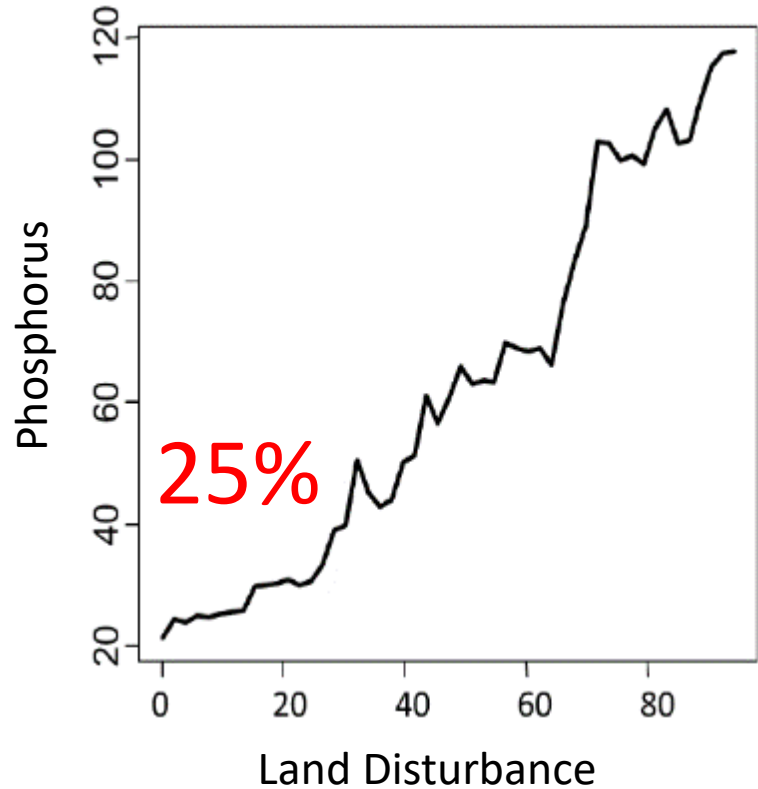
Quote Credit: Pete Jacobson (DNR)



Local and State Research for Protection



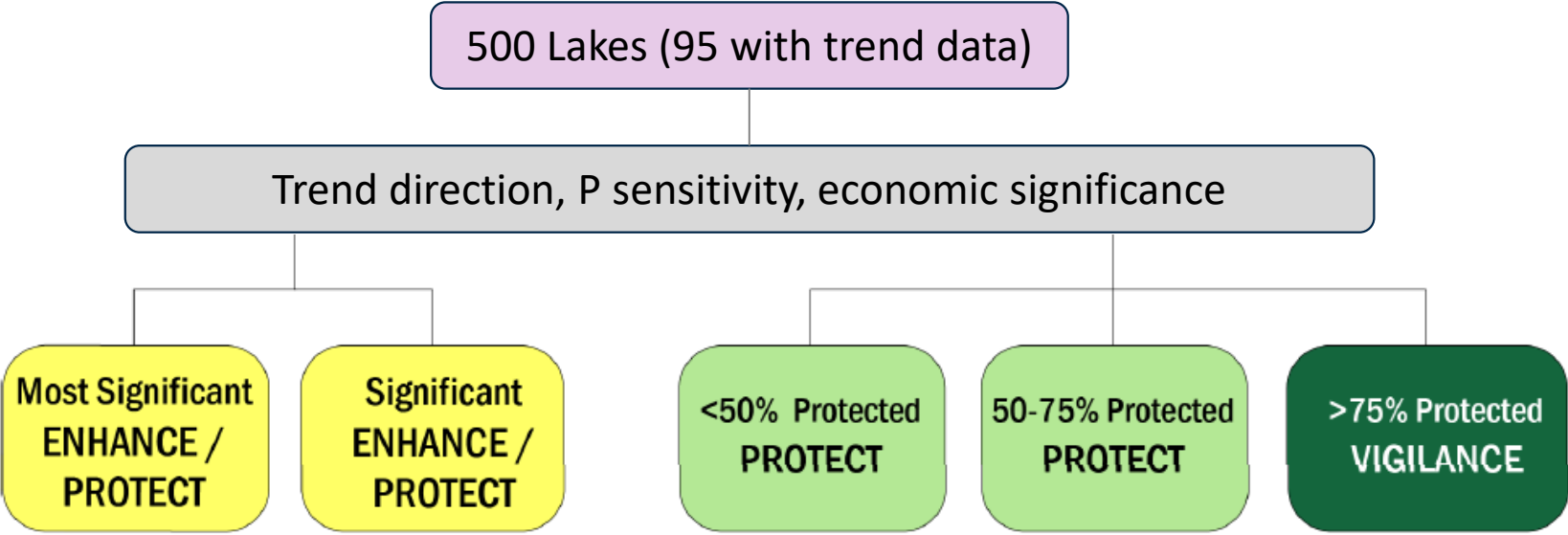
A Numeric Protection Threshold: 75%



“Protected land” areas:

- Surface water
- Public land
- Private wetlands
- Conservation easements
- SFIA enrolled parcels

Prioritizing Lakes 500 → 19



2

3



Water Quality
“Fix It”

3

7

4



Habitat
“Keep It”

Pine River Goal 1: Protection

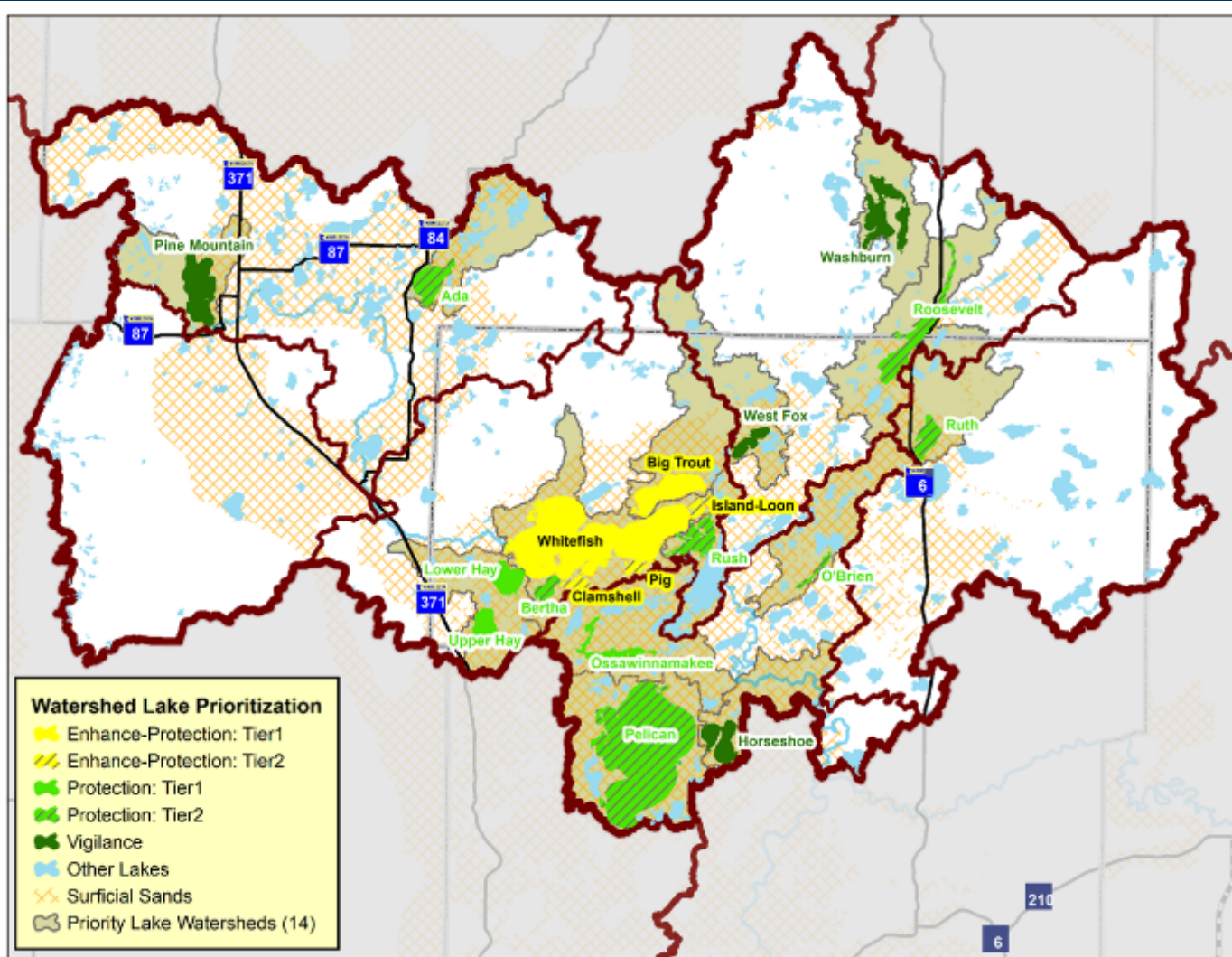
Surface

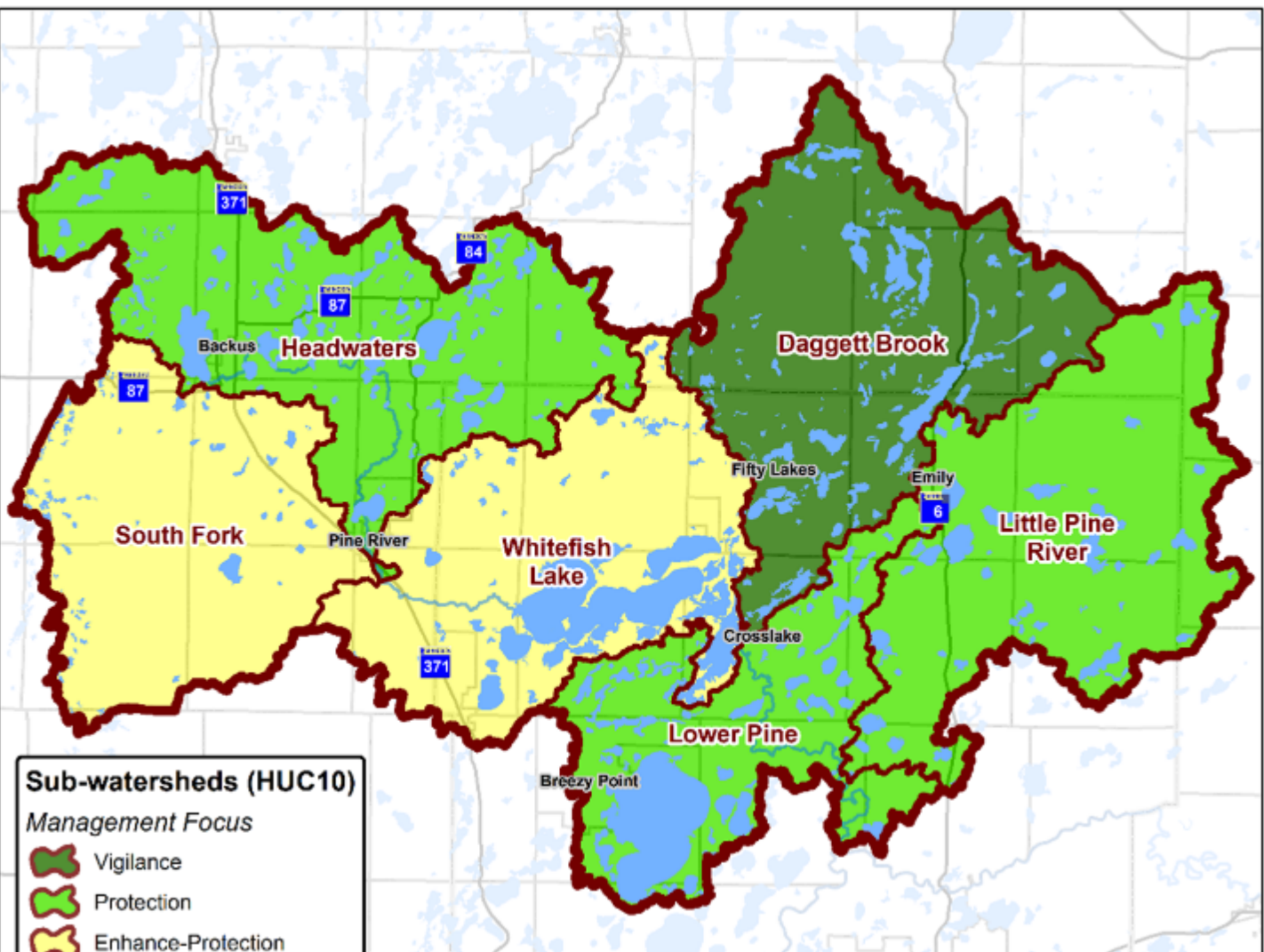
Ground

Forestry

Goal: 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.







Sub-watersheds (HUC10)

Management Focus

-  Vigilance
-  Protection
-  Enhance-Protection

Lake	County	Management Focus	% minor wshd protected (incl. SFIA)	Protection Goal	Needed for 75% protection (acres)	Potential to protect (acres)	*Cost Easements	*Cost SFIA	Notes
Big Trout	Crow Wing	Enhance-Protection	59%	75%	1351	1334	\$1,473,731	\$85,410	
Whitefish	Crow Wing	Enhance-Protection	66%	75%	1498	1507	\$481,858	\$94,702	
Clamshell	Crow Wing	Enhance-Protection	x	x	x	x	x	x	combined with Whitefish
Island-Loon	Crow Wing	Enhance-Protection	x	x	x	x	x	x	combined with Whitefish
Pig	Crow Wing	Enhance-Protection	x	x	x	x	x	x	combined with Whitefish
Subtotal:							\$1,955,589	\$180,112	
Ada	Cass	Protection	63%	75%	585	1184	\$208,837	\$36,942	
Roosevelt	Cass	Protection	66%	75%	1187	1917	\$285,369	\$74,998	
Bertha	Crow Wing	Protection	x	x	x	x	x	x	combined with Whitefish
Rush-Hen	Crow Wing	Protection	x	x	x	x	x	x	combined with Whitefish
Pelican	Crow Wing	Protection	64%	75%	2040	1458	\$696,815	\$128,938	
Ruth	Crow Wing	Protection	62%	75%	985	1379	\$196,314	\$62,278	
O'Brien	Crow Wing	Protection	50%	75%	2102	2230	\$927,428	\$132,867	
Ossawinnamakee	Crow Wing	Protection	36%	63%**	3475	3168	\$1,622,374	\$219,609	**Modified goal due to potential
Lower Hay	Crow Wing	Protection	34%	50%**	1383	1,725	\$808,316	\$87,383	**Modified goal due to potential
Upper Hay	Crow Wing	Protection	34%						
Subtotal:							\$4,745,453	\$743,015	
West Fox	Crow Wing	Vigilance	85%		0	669	\$0	\$0	
Washburn	Cass	Vigilance	82%		0	797	\$0	\$0	
Horseshoe (CW)	Crow Wing	Vigilance	78%		0	422	\$0	\$0	
Pine Mountain	Cass	Vigilance	75%		0	600	\$0	\$0	

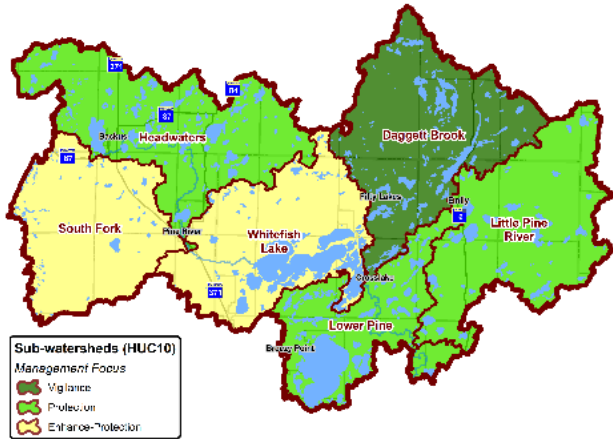
Total cost to protect priority lake minor watersheds in this plan: **\$6,701,042**

SFIA funding (already allocated):

\$923,127

Funding

Map of Management Focus Areas



Management Focus

PROTECT

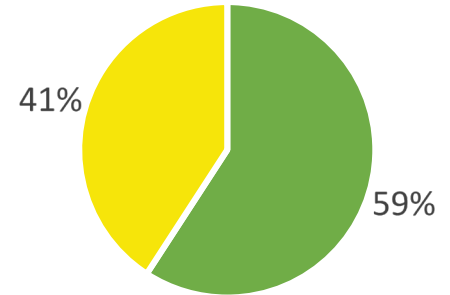
Total Funding

\$8.7 Million

Percentage of total funding

ENHANCE/
PROTECT

\$6 Million



Prioritize / Target / Measure

Prioritize



by water

(minor watersheds with important lakes and river reaches)

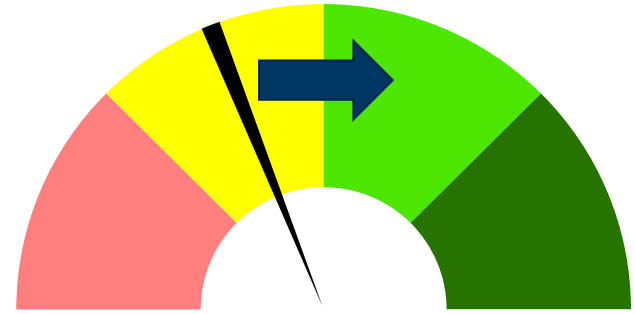
Target



by land

(private forest lands, RAQ criteria)

Measure

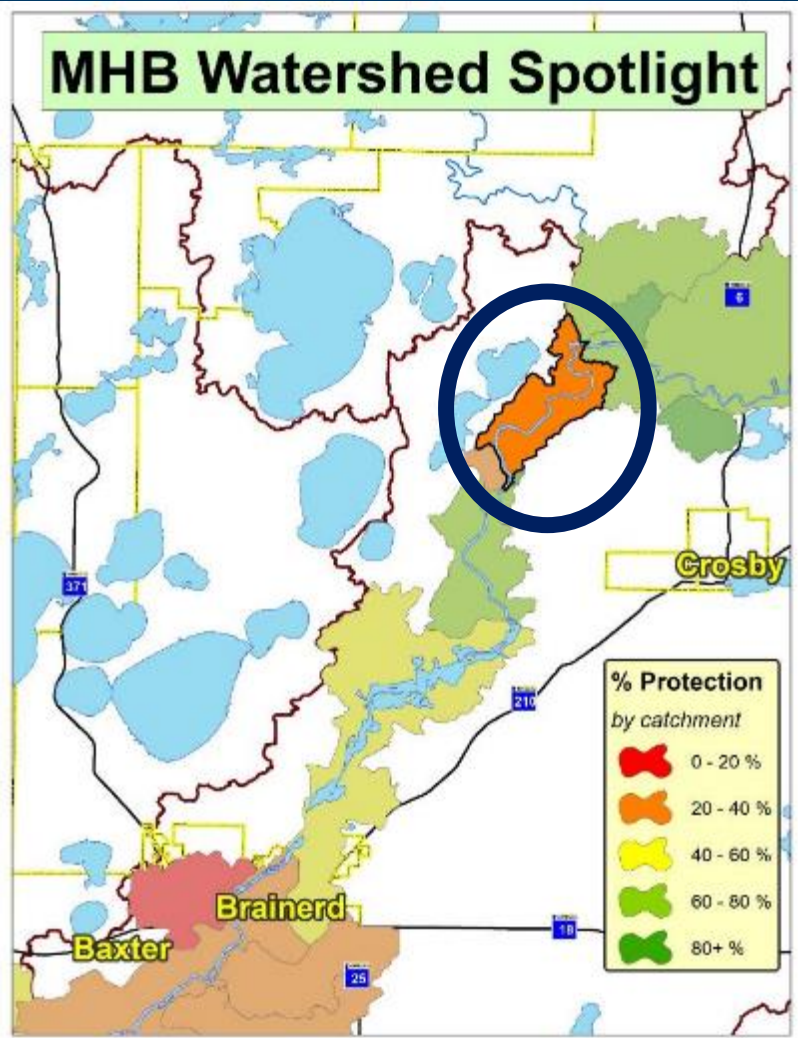


by “needle”

(number of acres and % increase in land protected)

MHB Watershed Spotlight

Case Study: Mississippi River



Mississippi River Reach Watershed Protection Example



Public Lands – 37%



2017 Acquisition – 46%



2017 Easement – 51%



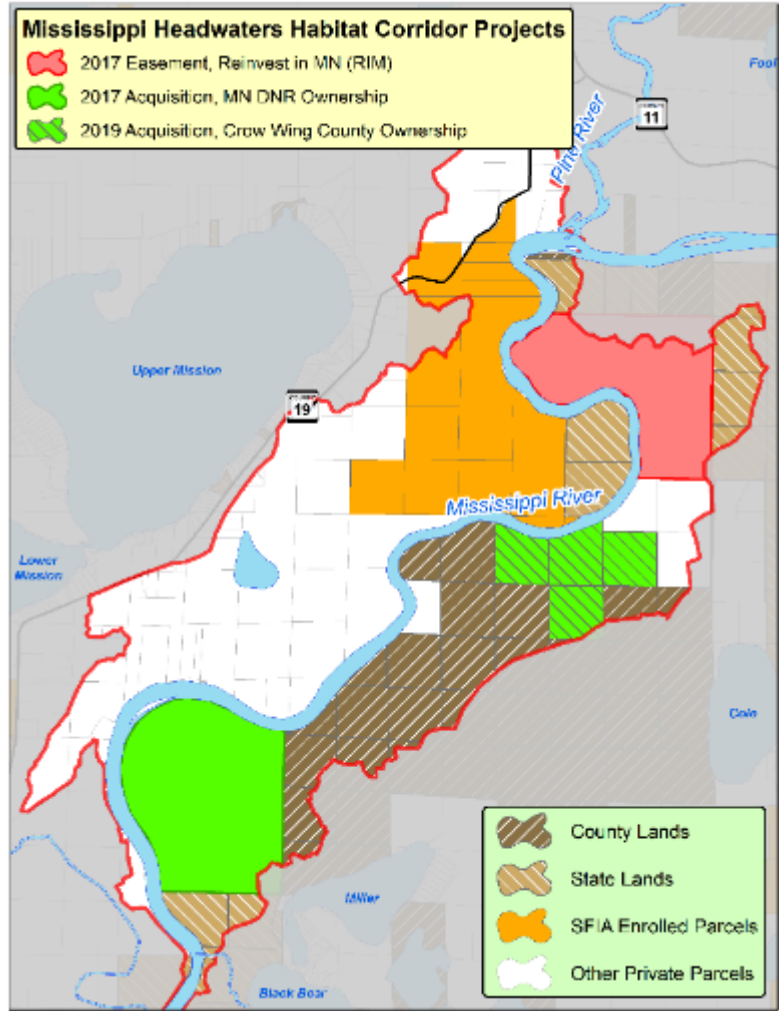
SFIA – 66%



2019 Acquisition – 71%

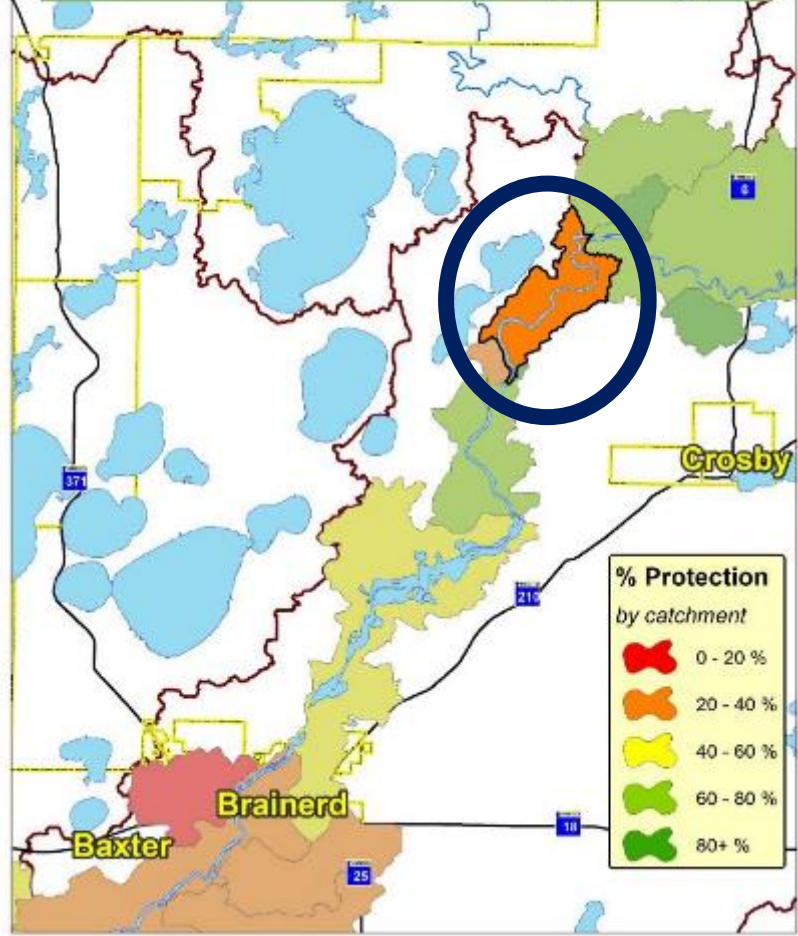
Mississippi Headwaters Habitat Corridor Projects

- 2017 Easement, Reinvest in MN (RIM)
- 2017 Acquisition, MN DNR Ownership
- 2019 Acquisition, Crow Wing County Ownership

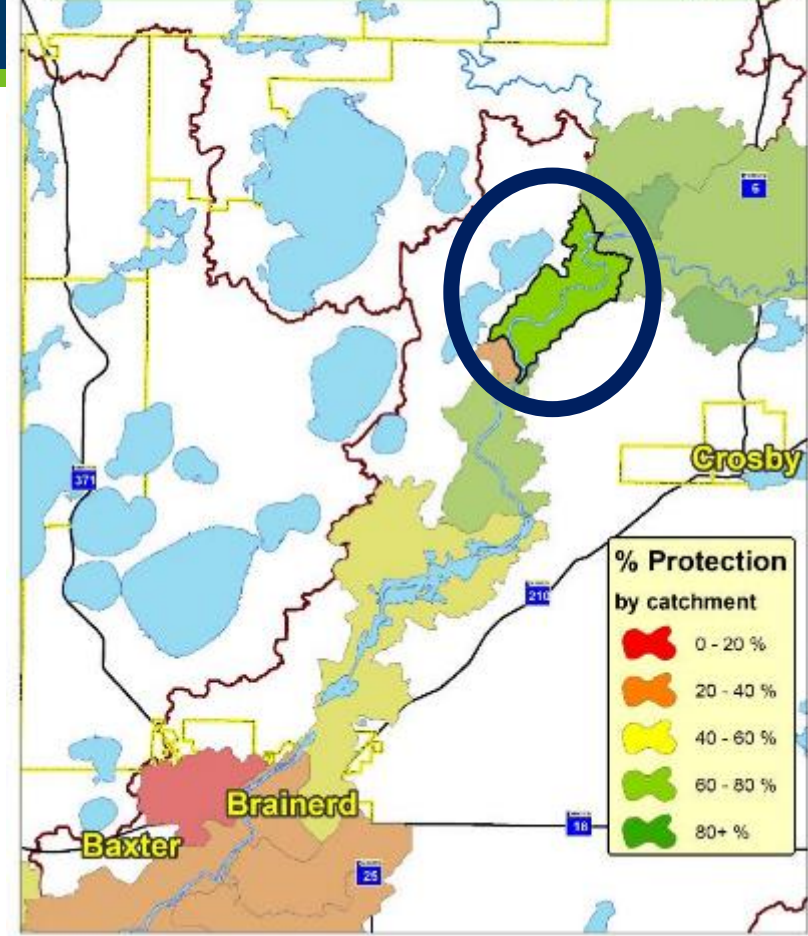


Case

MHB Watershed Spotlight



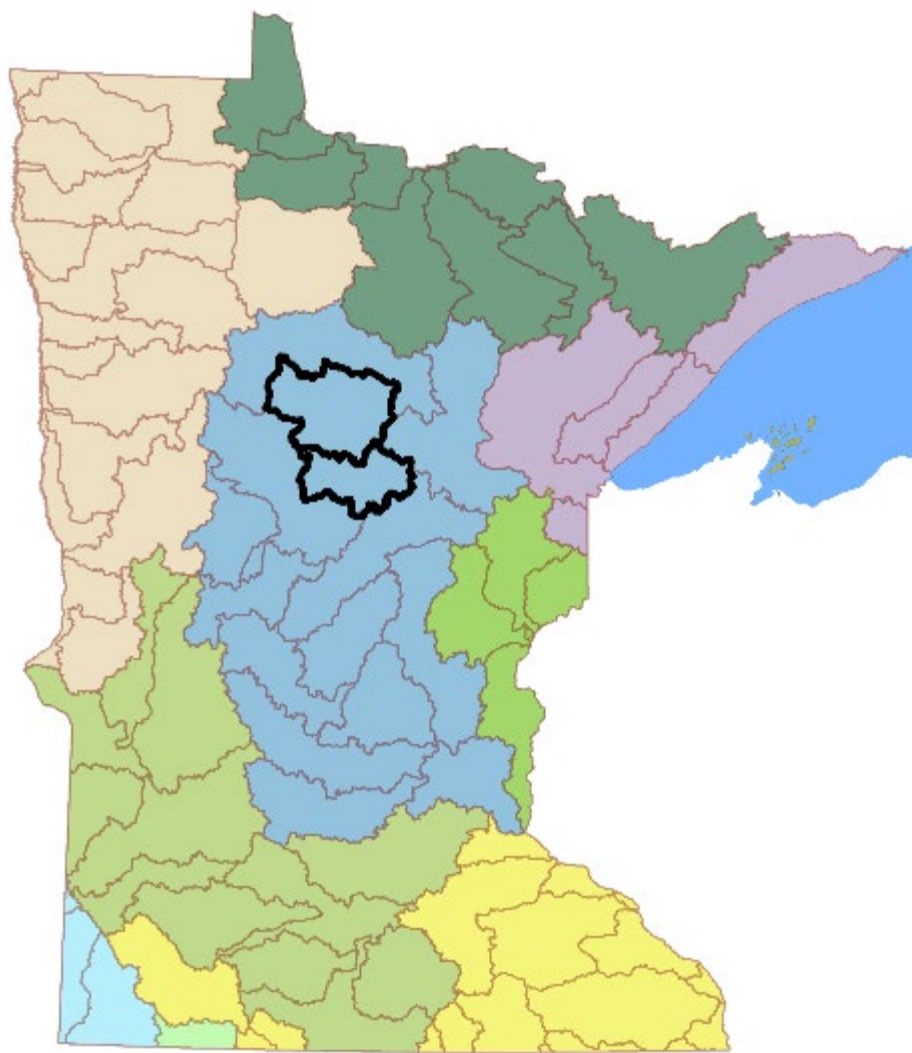
MHB Watershed Spotlight




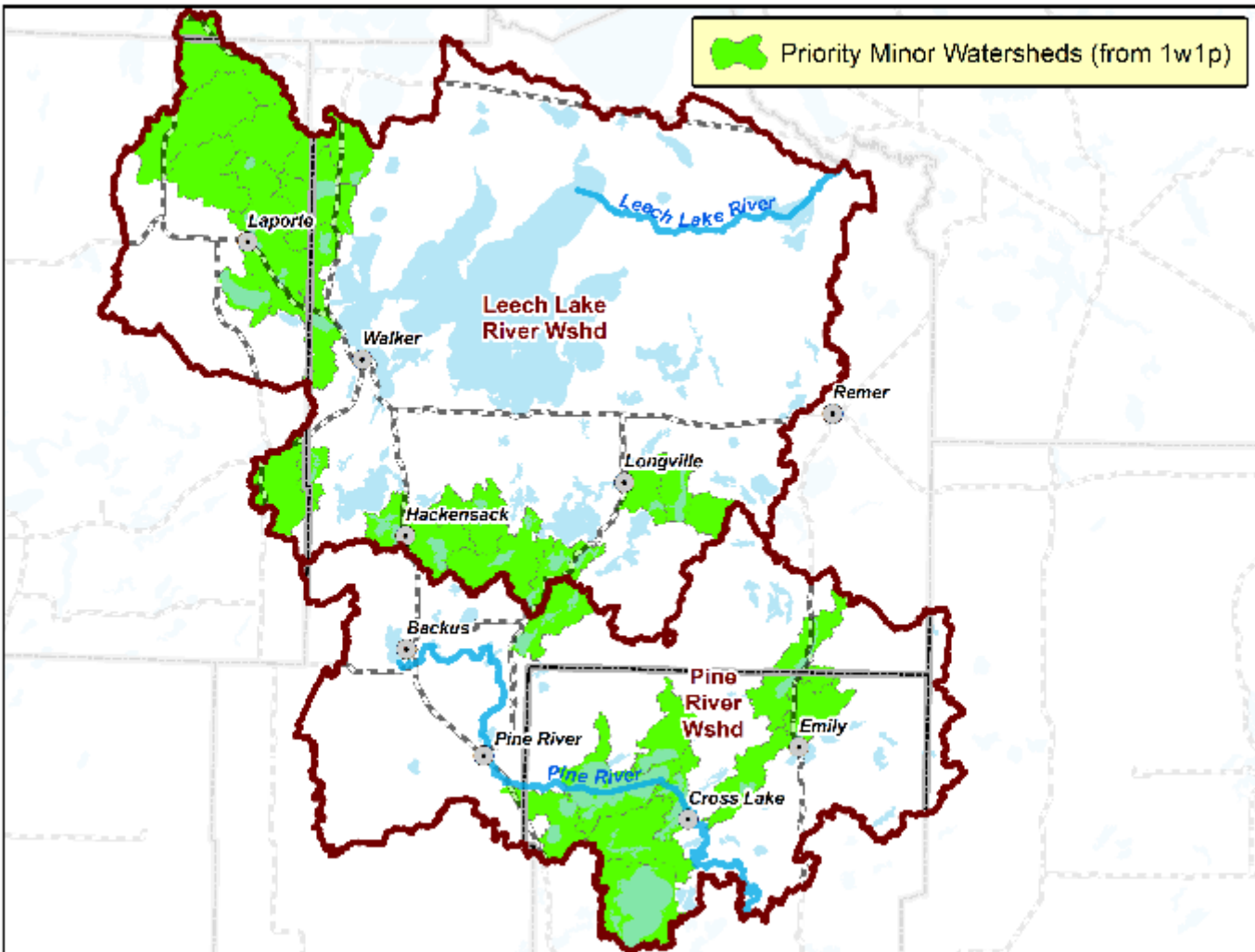
Landowners Choose!

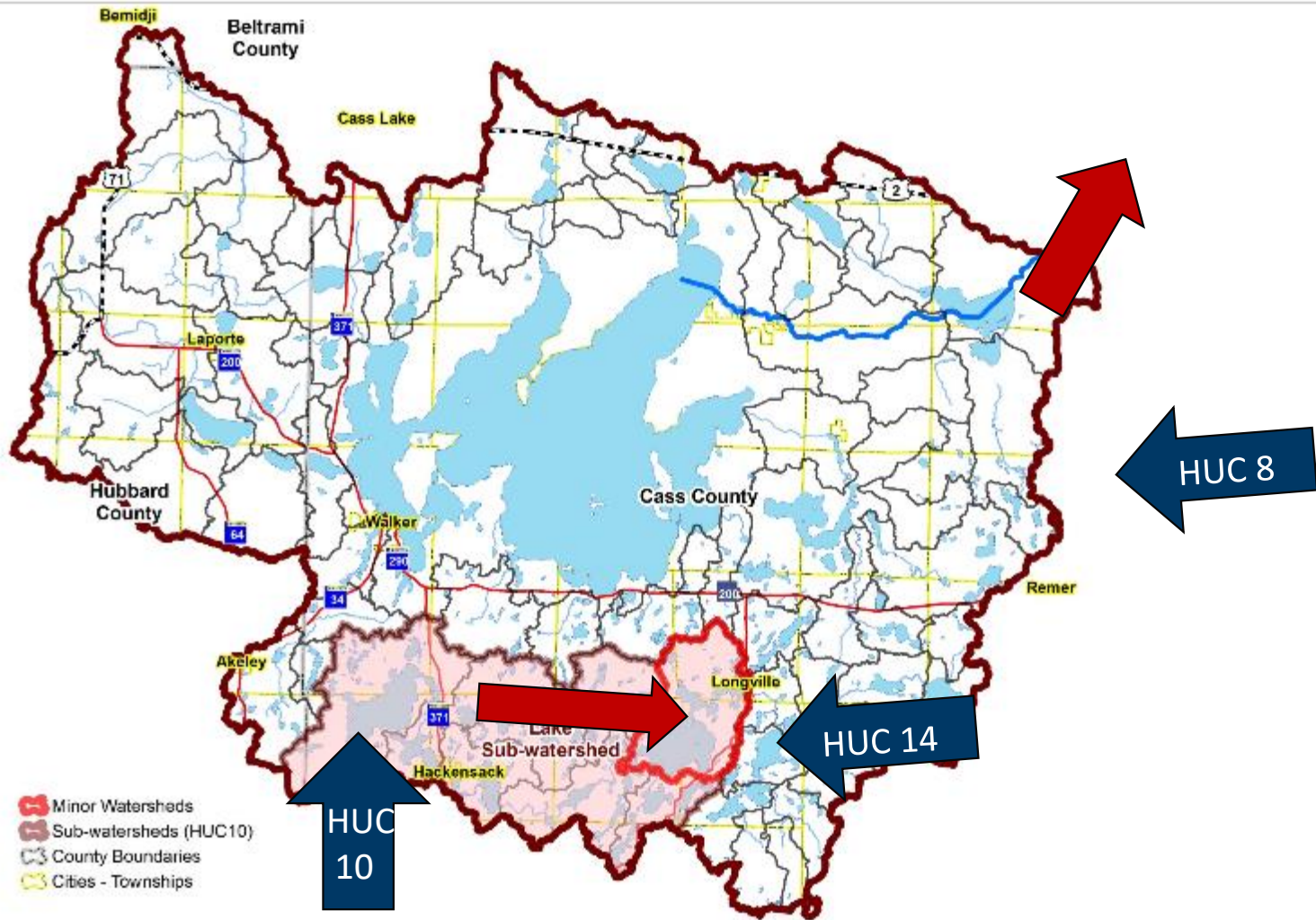
Private Forest Landowner Implementation Toolbox

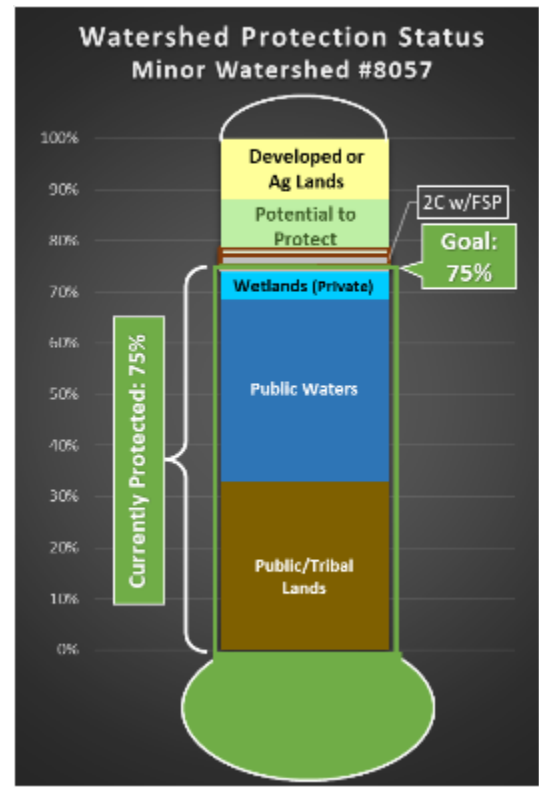
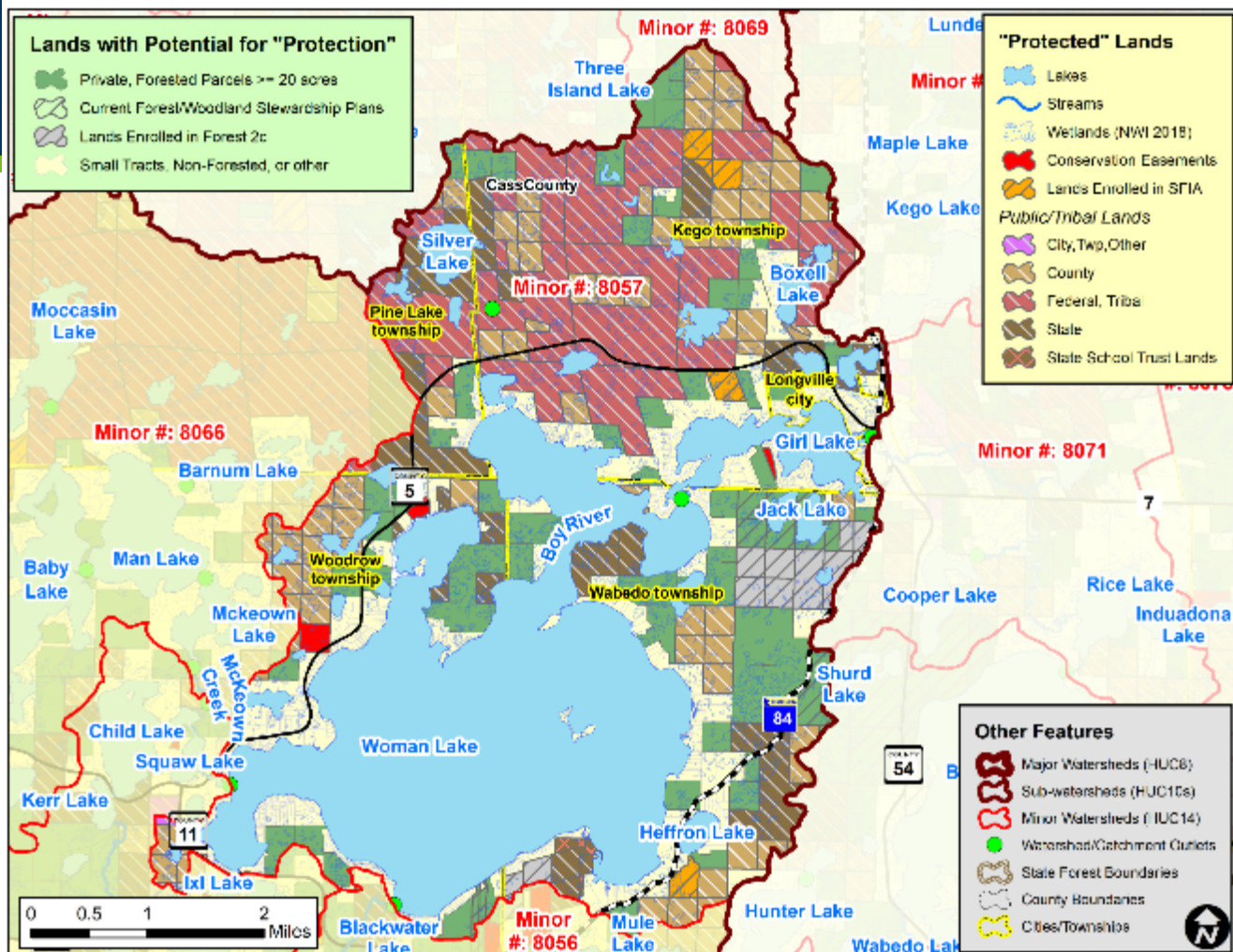




 Priority Minor Watersheds (from 1w1p)

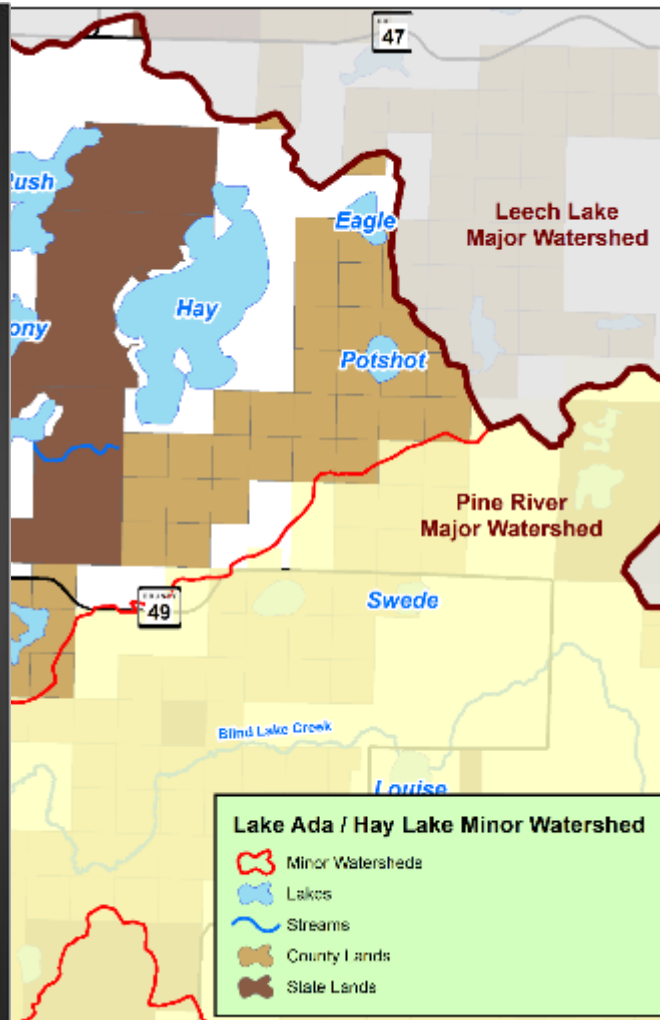
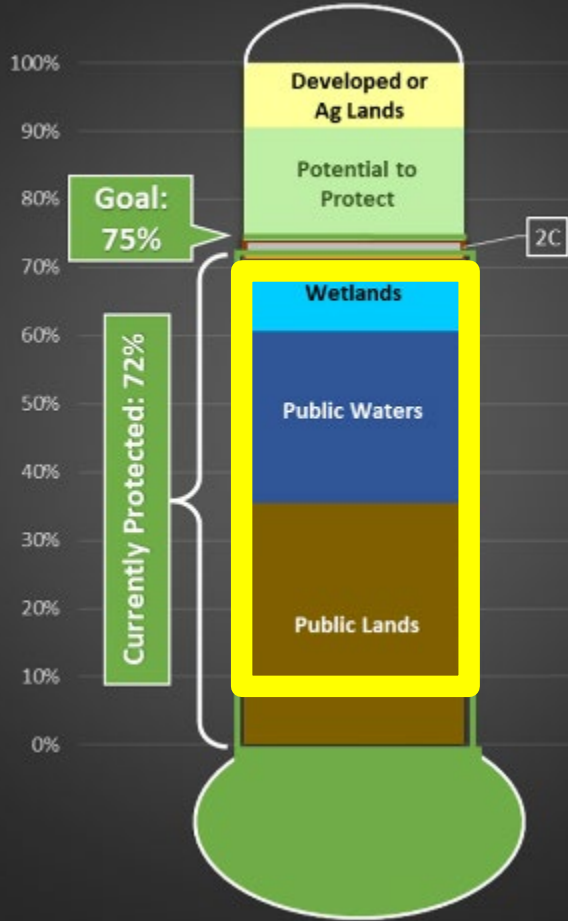






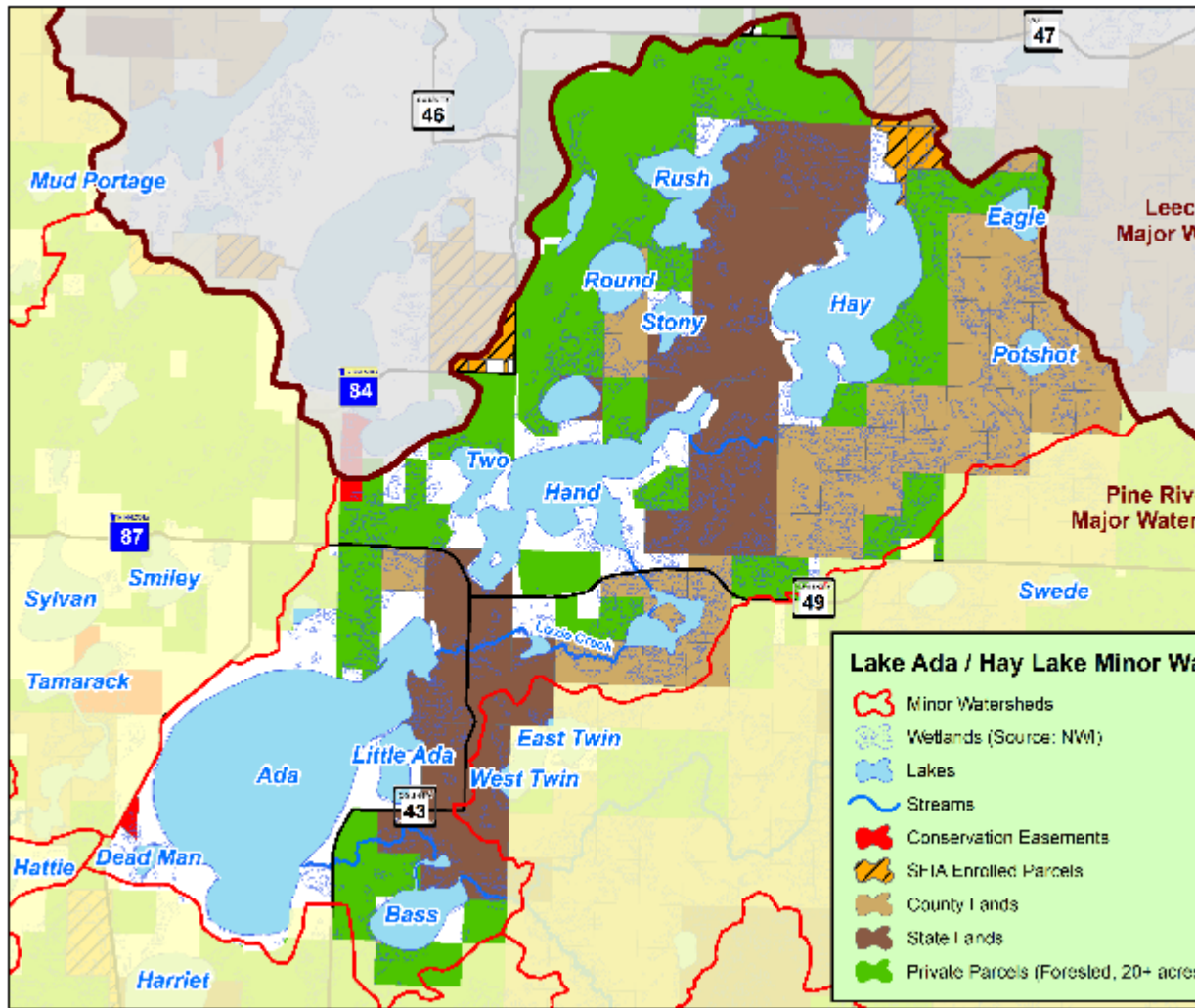
Watershed Protection Status

Minor Watershed #11029

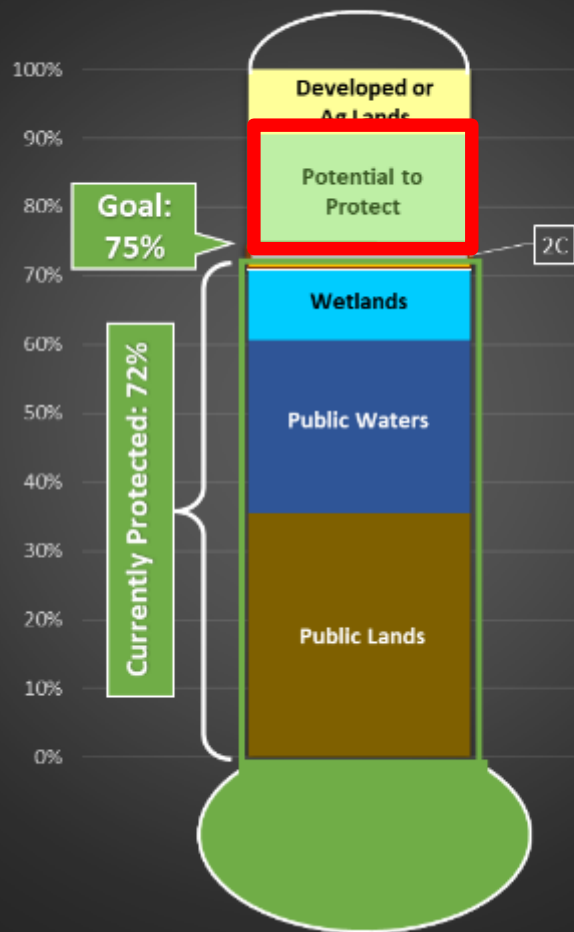


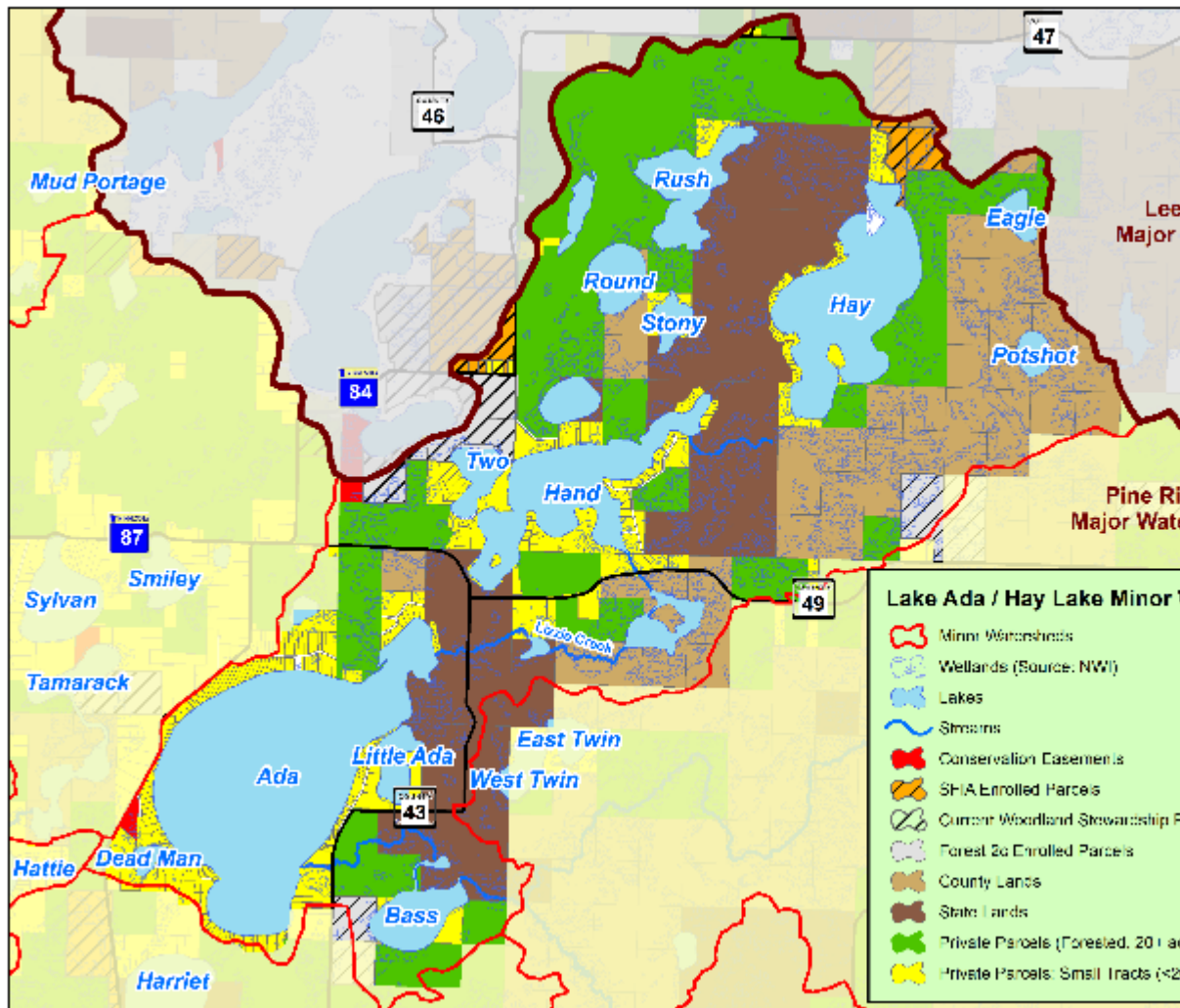
Hay/Hand:
Habitat Priorities

Ada:
Water Quality
Priority

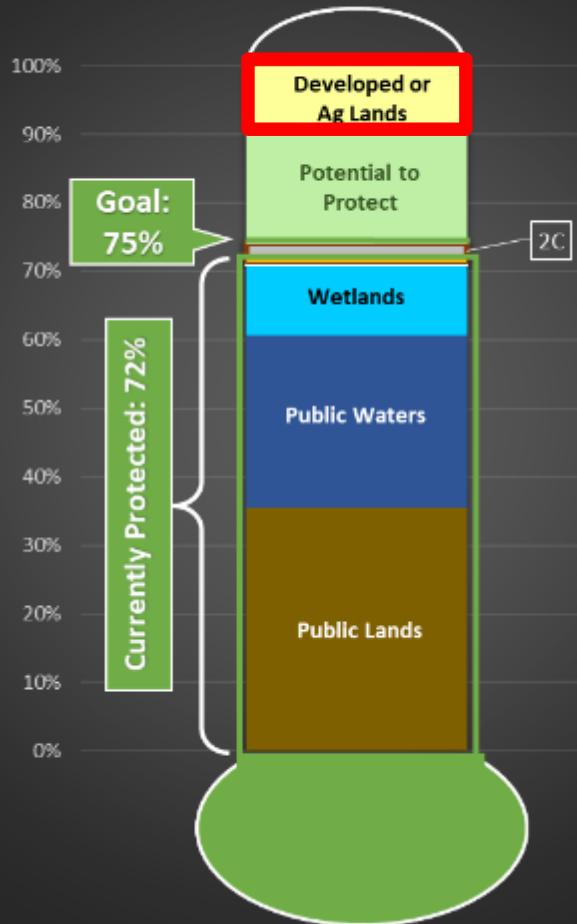


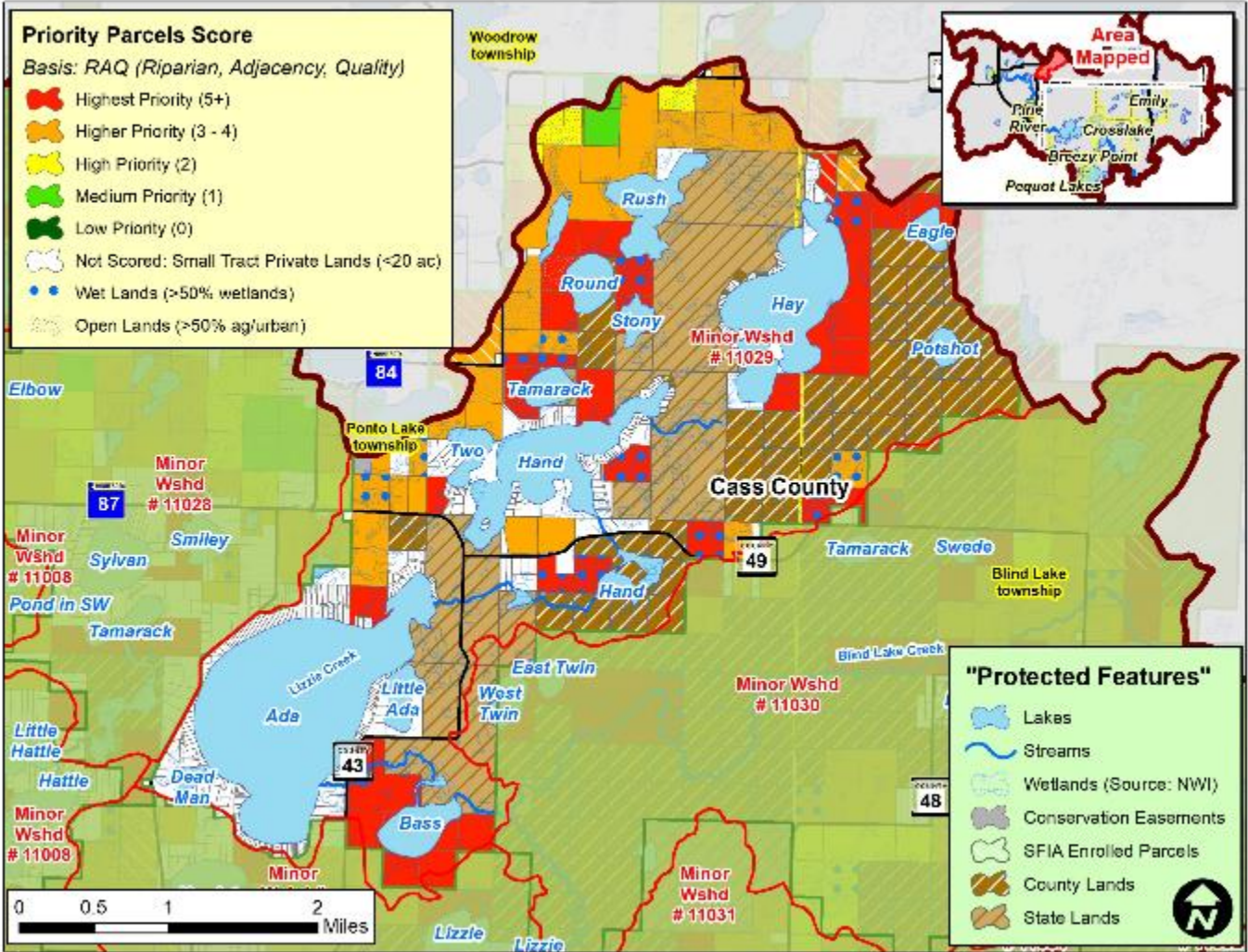
Watershed Protection Status Minor Watershed #11029





Watershed Protection Status Minor Watershed #11029





Riparian
 (close to water)

Adjacency
 (close to public land, easement or SFIA)

Quality
 (biodiversity, wild rice, etc.)



Habitat

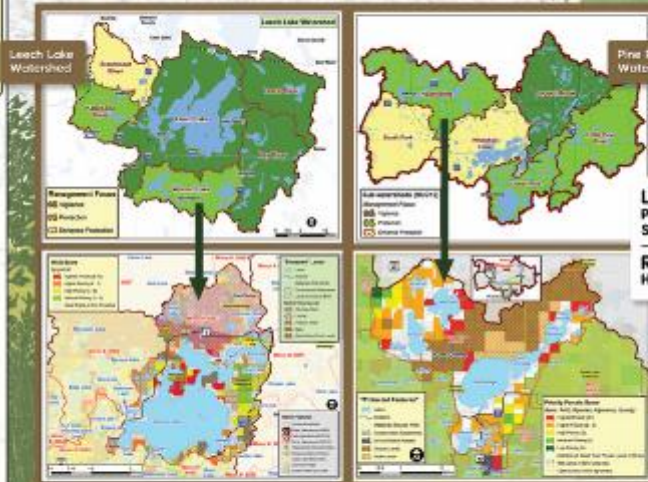
Aquatic and Terrestrial

- Complete 38 BWSR RIM easements on private lands
- Protect over 2,280 acres of pristine forest upland habitat



Prioritization by Watershed

- Class Lakes, Wild Rice Lakes, Lakes of High/Outstanding Biodiversity
- "Protection" Watersheds (75% Protected, source One Watershed One Plan, DNR Landscape Stewardship Plan)



Upland forest habitat is essential to fish habitat

Our best teamwork with fish are partially a result of our forests teamwork with trees.

RAD Scoring Method Targets to the Private Parcel

- R = Riparian to Lake or Stream
- A = Adjacent to Public Lands (for larger habitat blocks)
- Q = Quality (High or Outstanding Terrestrial Biodiversity, DNR Wildlife Action Plan, Trout, Native, Muskie, Wild Rice, Old Growth Forests, or other locally important features)

Thank You!

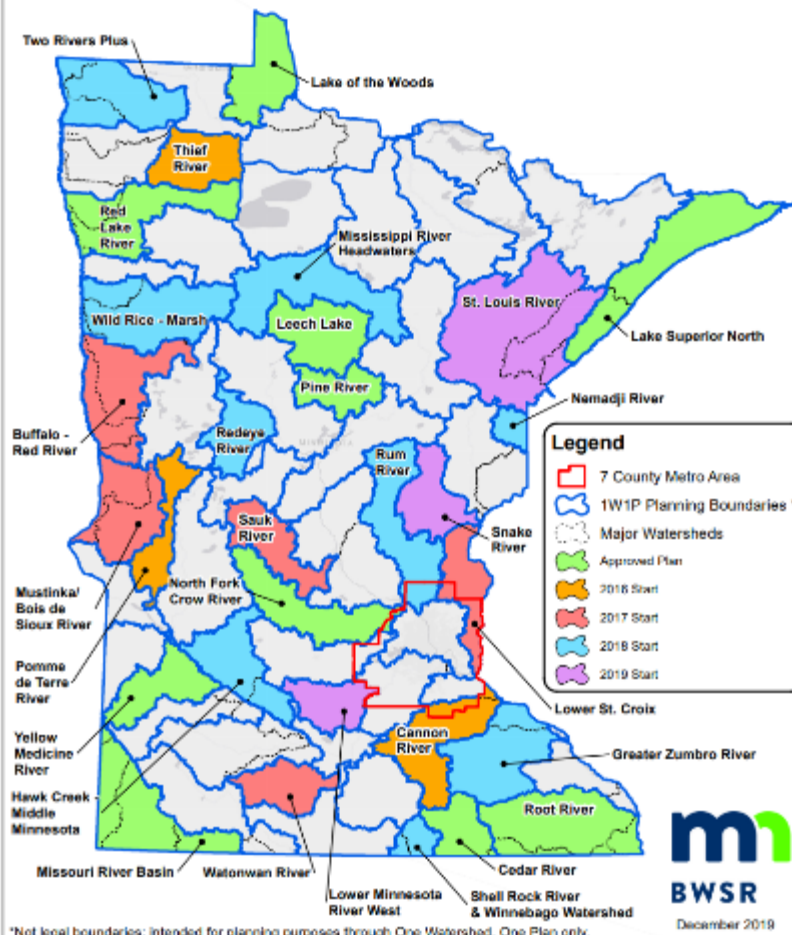


*Harmonizing people, water,
forests, and the economy in
a place to renew your spirit.*





One Watershed, One Plan Participating Watersheds



Looking to the Future

