

Steps we can take

Shoreline Landowner Implementation Toolbox

HABITS

- Minimize fertilizer use
- Pick up & dispose of pet waste properly
- Clean up & spread out campfire ash
- Use less salt & de-icers
- Stop mowing near the shore
- Let unused areas grow naturally
- Embrace your ice ridge (don't flatten it)
- Stagger your water use
- Leave aquatic plants in place
- Spread out water use

ENHANCEMENT

- Remove invasive plants
- Add native plants to no-mow areas
- Redirect runoff away from the lake
- Plant native trees & shrubs
- Pump your septic every 3 years
- Leave woody habitat in the water

UPGRADES

- Use efficient 2-tank water softener
- Use a raised fire pit
- Use a rain barrel system to trap runoff to the lake
- Inspect septic system

FIX

- Restore a degraded shoreline using bioengineering techniques
- Install raingardens / diversions to capture or direct runoff

Lower Costs, Less Effort

OPTIONS

Higher Costs, Greater Effort



YOUR SWCD IS HERE TO HELP

Lakeshore property owners are firsthand witnesses when imbalances occur within a watershed. All of the surrounding land within a watershed contributes to the overall health or deterioration of water quality. Your local SWCD works with all types of landowners to protect the natural resources and water quality in and around your Lake.



Phone: 218 - 547 - 7241

Website: www.cassSWCD.org

Email: SWCD@casscountymn.gov

Living Lake Friendly!

Barnum Lake Association Lakeshed Plan

Introduction

In 2018-2019, the Soil and Water Conservation Districts (SWCDs) in Cass and Hubbard counties partnered with the Leech Lake Band and local citizens to develop a comprehensive watershed management plan for the Leech Lake River Watershed. This plan consists of:

1. Watershed based planning to improve efficiency.
2. Data-driven decision making tied to measurable goals that are designed to maintain and improve water quality over a 10 year period.
3. Leveraging Clean Water Legacy Amendment funds for targeted projects that improve watershed health.

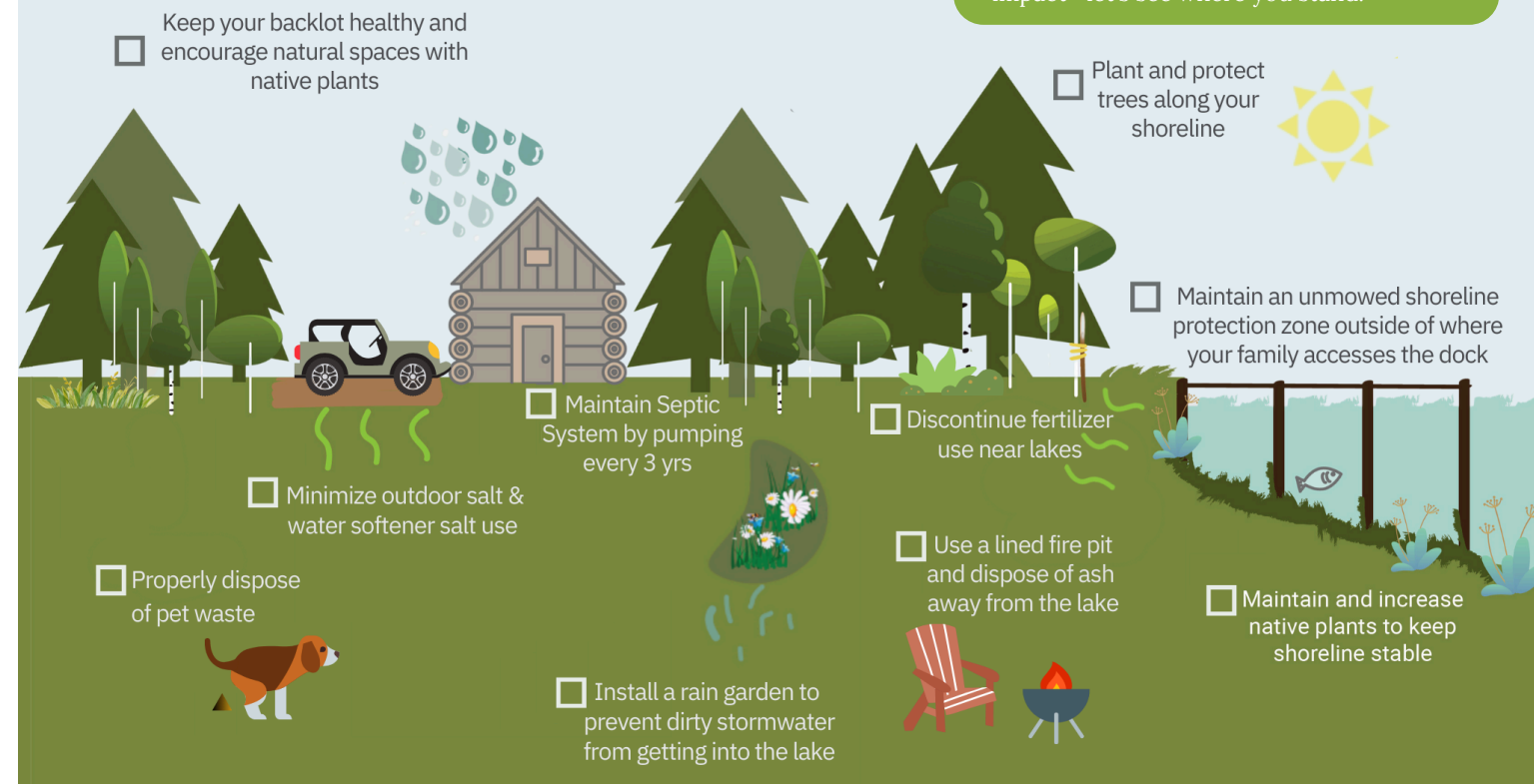
Be a good neighbor, take care your lake!

Why?

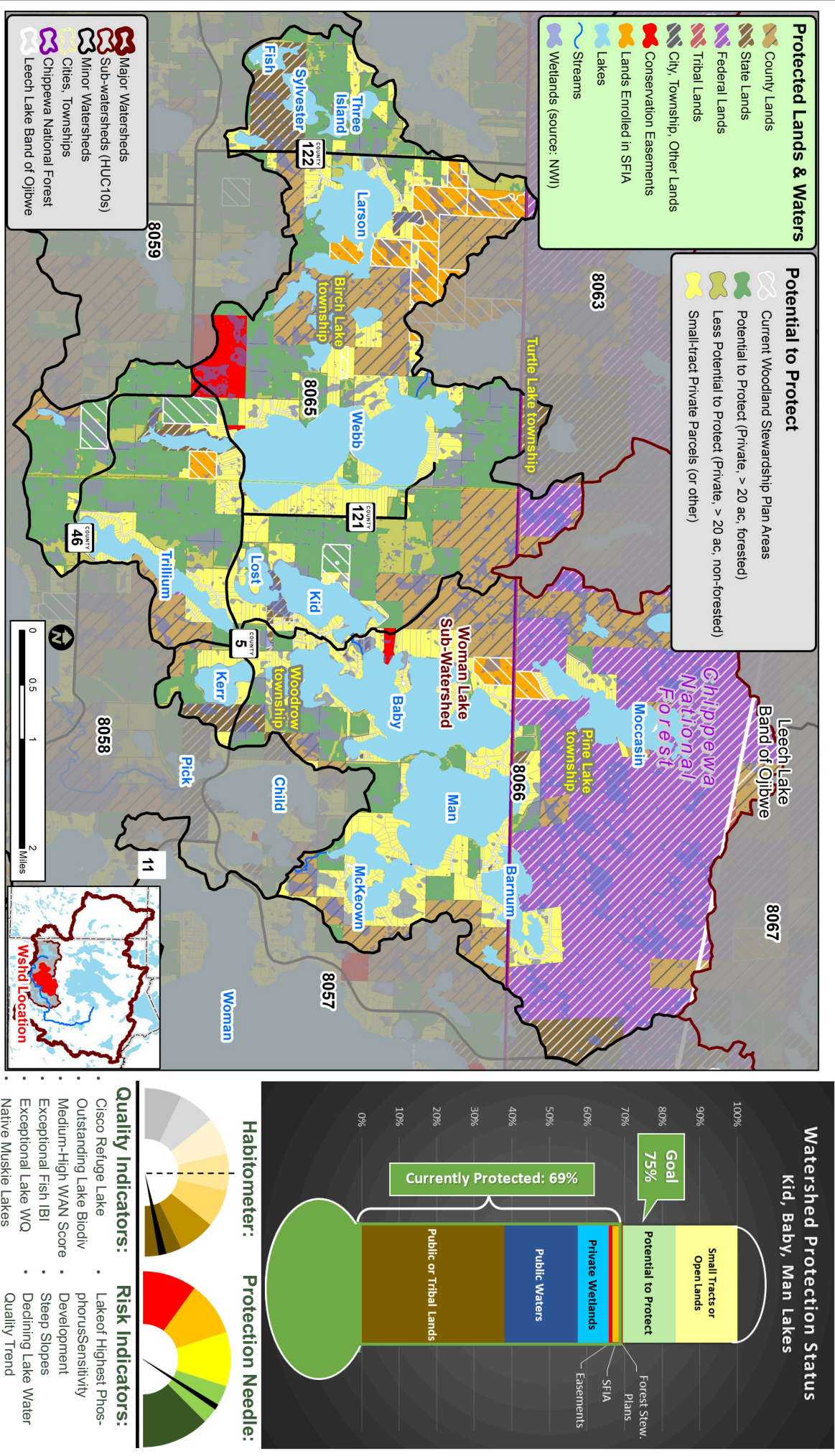
Because this is Minnesota's favorite place. Lakes are our heritage and our way of life. There is a direct correlation between water quality and economic sustainability in this area. If we work to keep our lakes clean future generations will continue to enjoy them.

Property owner Checklist!

Grab a pen (yes, from that junk drawer!) and take a moment to check off how your lot and habits measure up. Small steps make a big impact—let's see where you stand!



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



Forested Landscape = Clean Water

This watershed currently has 69% protection—75% is a critical threshold for maintaining clean water. One goal is to increase this sustained forest cover by 10% each year (approximately 115 acres). Forests play a key role in filtering water, reducing runoff, and protecting lakes and streams. Promoting development on already altered lands while preserving existing forests helps sustain both economic growth and ecological integrity. By protecting these areas today, we ensure clean water for future generations.



Habitat

Do you enjoy watching loons, eagles, butterflies and other wildlife at the lake?

These critters depend on shoreline plants for nesting and cover, trees and forests for their homes, and native plants and flowers for pollinating. Keeping some of your yard natural enhances the habitat, ensuring their survival.



Fishing & Recreation

Do you enjoy fishing and swimming?

Minnesota's native gamefish, such as walleye, need clear water to see their prey, aquatic plants to hide and spawn in, and shade to keep cool. Keeping native plants in the lake and trees along the shoreline provide shade, spawning habitat, and protection for the gamefish we love to catch. These plants and trees also help stop runoff and keep the lake clear for swimming and recreational activities.

Goal	Barnum Lake Implementation Action	Minimum 10-yr Goal
Phosphorus Reduction	Install rain gardens & implement storm water management practices to capture rainwater and let it infiltrate instead of running into the lake.	Reduce phosphorus input by 5%. (3 lb / yr)
Shoreline Protection	Install shoreline buffers of native plants to protect the shoreline from erosion and provide habitat for fish and wildlife.	Work to develop 75% shoreline protection by developing 25ft buffers along lake.
	Plant trees along the shoreline and upland zone.	280 trees
Shoreline & Land Protection	Develop a Forest Stewardship Plan (min. 20 acres)	Work to protect 1,150 acres.
	Sign up for Sustainable Forest Incentive Act (SFIA) to receive payments to keep wooded areas undeveloped. (min. 20 acres)	Work to protect 1,150 acres.
	Permanently protect undeveloped land and shoreline with conservation easements.	Work to protect 1,150 acres.
Monitoring	Continue to implement county AIS plan.	Continue data collection to monitor lake trends.
	Continue to collect and process water samples & monitor Secchi depth.	
Groundwater	Have subsurface sewage treatment systems maintained / pumped every 3 years	Develop septic system monitoring schedule. Pump every 3 years.
	Seal unused wells in the shoreland zone.	Seal 2 wells per year or as needed.
	Minimize chloride use on driveway & sidewalks. Install and use only high efficiency water softeners.	Education & outreach to lake associations once every 3 years.
Education	Partner with Lake Association and partners to deliver sustained, consistent messaging about protecting and restoring natural shorelines.	Provide guidance, tools, and support to lake association.

\$ = money available



= Cass SWCD cost share available

Why does it matter?



Property Values

What is your home worth?

Studies of Minnesota lakes show that lake property values can be directly tied to water quality. For a three-foot decrease in water clarity, prices fell up to \$594 per shoreline foot. For a three-foot increase in clarity, prices increased up to \$423 per shoreline foot.

What can we do?

Private landowners can help improve lake water quality and achieve watershed plan goals by implementing the projects outlined in the table on the right.



Want to learn more about taking care of lakes?

Watch a short video at: www.cassSWCD.org/shoreline-protection

Contact Cass SWCD (www.cassSWCD.org) for technical and financial assistance.