

4 - 2022 Lake Steward Outcomes – Remarkable Results

By Jeff Forester, Executive Director, Minnesota Lakes and Rivers Advocates

The MPCA reports that 56% of the lakes and rivers in Minnesota are impaired. The sources and reasons for water degradation are both plentiful and complex, but degraded shoreline is a contributor. The simple fact is that if we want to improve water, we must improve land management. Unfortunately, the trends are towards more development of the shoreline. Across the state, we have already lost approximately half our natural shorelines on Minnesota lakes. Degraded shoreline is a problem that we can address.



The state's agencies, like the MN DNR, are very limited in their ability to address the problem. The Shoreland Management Act of 1969 set the minimum standards for the counties. Very little has changed since then, and even these standards are often undone by the local variance process.

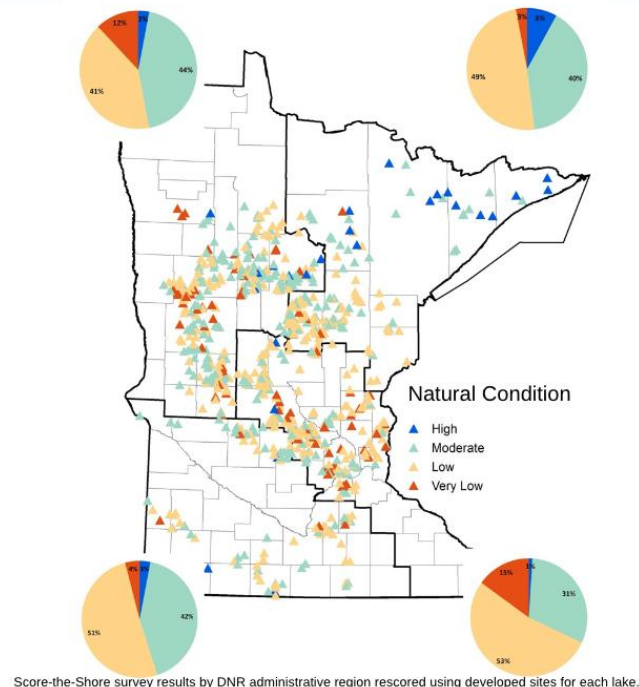
In 2020, Minnesota's counties issued 8,846 land use permits on shoreline property. That was 6,797 higher than in 2019. For comparison, in 2012 there were 1,207 permits issued for new development on undeveloped shoreline lots. In 2020 there were 2,220 permits issued for new development on shoreline lots. In 2020 the counties created 1,187 new shoreland lots, the majority by lot splits. This is the highest number since 2012.

This means that the best way to protect shorelines and improve the water quality dependent upon them is for citizens to decide to change their management of the shorelines in their care. Top down laws, regulations or permits will not meet the increasing need.

Lakeshore Buffers –

We've lost 40-50% of our natural lakeshores

If we fail to protect these natural shorelands, we will lose lake water quality, and maybe even the ability to swim and recreate in our lakes



When MLR learned of Gull Lake's Lake Steward program we saw an opportunity to have a statewide impact in reducing nutrient pollution in our lakes and rivers. Working with the Gull Lake Association, we took the Lake Steward program statewide. In 2021, COVID 19 limited the statewide rollout of Lake Steward, but in 2022 we saw remarkable growth of Lake Steward.

Lake Steward is a partial solution to reducing nutrient loading, particularly phosphorus, into our lakes and rivers. Reducing phosphorus will reduce excessive aquatic plant growth and algae blooms

This is because phosphorus is a "limiting" nutrient in Minnesota, phosphorus exists in limited amounts in Minnesota's soils and lakes, and so restricts the growth of plants, including algae, in our ecosystems. Add more phosphorus to a lake and plants and algae will respond quickly. Rainwater and snowmelt can carry phosphorus from soils and impermeable surfaces into lakes and rivers. When a shoreline property owner reduces runoff on their property they can have a significant impact on both excessive aquatic plant growth and frequency and intensity of algae blooms in the lakes they love.

Consider that:

- 1 lb of Phosphorus produces 500 lbs of algae in a lake.
- Lots with a lawn that runs down to the water's edge contribute about 0.2 lbs Phosphorus/lot per summer, or about 100 lbs of algae. The cumulative effect is significant. On a lake with 100 lawn to lake lots, this results in about 10,000 lbs of algae.
- Simple strategies, like maintaining at least a 25 foot buffer of deep rooted native plants, directing runoff from impervious surfaces like roofs, patios and driveways away from the lake can reduce phosphorus runoff to 0.03 lbs per lot, or 15 lbs of algae. Cumulatively a lake that converts 100 lots to Lake Steward standards can reduce algae production from 10,000 lbs to 1,500 lbs.

Minnesota Lakes and Rivers Advocates:
**Shoreland Guide to
Lake Stewardship**



Lake Steward helps a lake association volunteer learn how to assess the amount of Phosphorus a lot is contributing to the lake. [MLR's Shoreland Guide to Lake Stewardship](#), available on Amazon, is a solid how-to manual for shoreline owners who want to help protect water quality.

One MLR member wrote about the Shoreland Guide to Lake Stewardship, “*Well written and easy to understand and implement. We bought 10 for our lake association and gave them away. Heard great reviews from those who got one and they plan on implementing the shoreline ideas on their property.*”

We created a phone-based App that leads evaluators through the process and captures the data they collect, giving us a statewide database of shoreline conditions.

MLR has been meeting with state policy makers regarding shoreland protection, and funding mechanisms or policies that will drive changes to shoreland management and improve water quality.

Lake Steward Program had significant growth in 2022

In 2022 Lake Steward experienced remarkable growth and has received a great deal of attention from policy makers. State shoreland standards have not been updated since the late 1960s.

- 259 Lake Steward quizzes taken,
- 238 site visits,
- 19 lake associations engaged,
- 6.3 Miles of shoreline Impacted,
- A potential of 28,209 lbs of phosphorus sequestered on shore,
- More than 14 tons of algae prevented,
- More than 1 mile of shoreline restored with more than 1 mile in the planning stages of restoration.



Some of Lake Washburn Association Lake Stewards gathered to celebrate achieving Lake Steward status.

MLR will work to expand the Lake Steward program to more lake associations. Many who carried the Lake Steward program last season reported that Lake Steward not only increased awareness and further education, but brought new members into the association.

"I am hopeful that in 2023, MLR's lobbyist will be able to convince legislators to provide some state support for our Lake Steward efforts," said Jeff Forester, Executive Director of MLR. If you or your lake association is interested in reducing the Phosphorus entering the lake you love, and reducing the size, intensity and duration of algae blooms in your lake, contact Jeff Forester at jeff@mnlakesanddrivers.org or go to [MLR's website](http://www.mnlakesanddrivers.org).

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