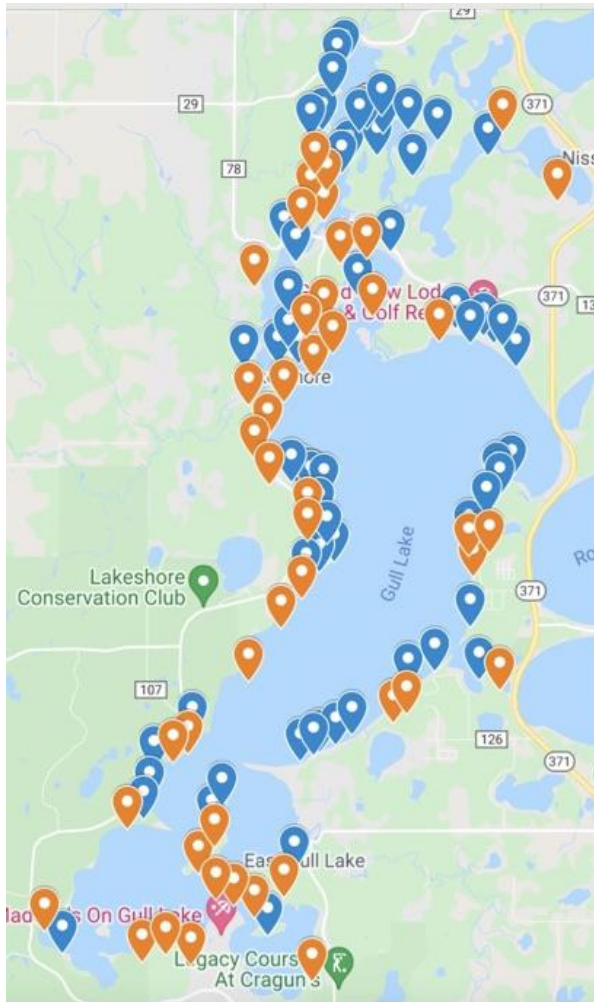


The Mission of Lake Steward

Reduce Nutrient Pollution and Restore Habitat

to Make Water Quality Sustainable, by Changing the Culture

One of the greatest threats to our lakes is **nutrient pollution**, the runoff of silt and phosphorus from soil and nitrogen from fertilizers, leading to overgrowth of plants and algae in the water. As plant materials decay, oxygen is consumed, causing fish kills and ultimately an impaired lake that is not suitable for swimming, fishing or recreation. Sadly, impaired lakes cannot be saved.



Over half of the lakes in Minnesota are impaired, and current practices are leading us toward impairment of the remaining lakes that have developed lakeshore. Having healthy lakes does not require more legislation. It just takes people like us deciding to manage land differently: more simply. We need nothing less than to **change the culture toward better lake protection**. If we do, cleaner water can happen almost immediately.

On the Gull Chain of Lakes in Nisswa, MN where Lake Steward started in 2019, 815 pounds of excess phosphorus (the key nutrient, coming from soil runoff) was reported to be entering the lakes per year as of 2020*. If the more than 2,000 lakeshore homeowners **reduce nutrient pollution** simply by avoiding harmful and expensive practices, half of that excess could be eliminated, **reducing algae growth by 200,000 pounds per year** and bringing the Chain much closer to long-term sustainability. Healthier lakes mean greater enjoyment of the water now and a more valuable legacy for children and grandchildren.

On the map of the Gull Chain of Lakes at left, blue pins denote our 63 GCOLA Lake Stewards; red pins denote the 45 Lake Steward Candidates who have also had site visits and are working toward the Lake Steward Award.

Impact of Lake Steward:

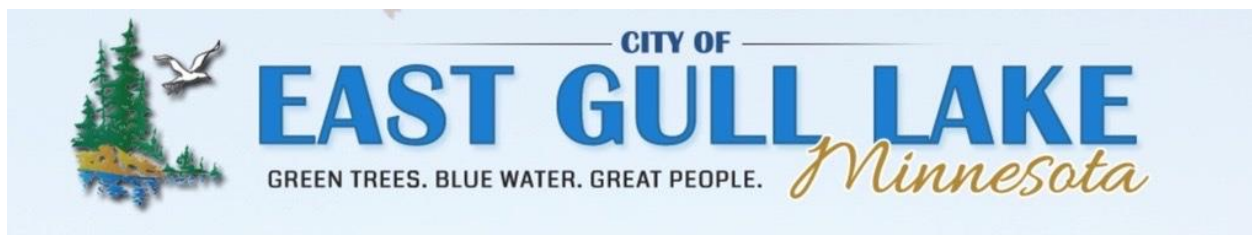
Gull Chain of Lakes, throughout Minnesota, and on other Glacial Lakes

On the Gull Chain Over Three Seasons: 2-1/2 Miles of Lakeshore

To reduce nutrient pollution within a targeted time frame, the Gull Chain of Lakes Association set a goal of 15% of membership becoming Lake Stewards within 5 years. Once the 15% threshold is reached, healthy lakeshore practices can be more widely accepted, effectively changing the culture. We are on track to meet that goal with 63 Lake Stewards and 90 candidates as of late 2021, and over two and a half miles of shoreline under Lake Steward protection. Over a half mile of that shoreline has been improved, with actions such as stopping fertilizer and pesticides, growing buffer zones, and doing restoration projects with native plants. Each Lake Steward is not only enriching habitat with their choice to encourage native plants on lakeshore, they are **setting an example and inspiring others**.

Lake Steward and our Cities

Four cities and a township have jurisdiction over Gull Chain shoreland: East Gull Lake, Lake Shore, Nisswa, Brainerd and Fairview Township. GCOLA has always had a strong working relationship with our local and state government through our Government Relations Committee. GCOLA Lake Steward would like to specifically assist the cities to work with homeowners to improve water quality, because the health of our cities and communities depends on the health of our lakes. Over the last two years, we have worked with the City of East Gull Lake, culminating in a resolution passed unanimously in June 2021 to put Lake Steward principles on the City's Land Use Application. It is the first time that Minnesota local government has partnered with a nonprofit for environmental protection. This will be the beginning of a GCOLA effort in East Gull Lake and the other cities to align homeowners' land use more closely with water quality. All stakeholders in the health of our lakes will benefit.



Lake Steward Goes Statewide in Minnesota 2021



If our goal is to change the culture, then we must reach beyond a single chain of lakes. GCOLA Lake Steward is proud to partner with the nonprofit Minnesota Lakes and Rivers (mnlakesandrivers.org) to **bring Lake Steward to lakes throughout Minnesota** starting in 2021. In the first season, there were 31 lake associations involved and 25 active programs.



A key part of the collaboration is to systematically gather statewide data to show that Lake Steward works and is a worthy recipient of grant funding for projects such as shoreline restoration.

Minnesota Native Landscapes (MNL, MNLcorp) in Otsego, MN, with a mission to **Heal the Earth**, has shouldered the cost and worked with us to develop a tool, an easy-to-use **cell phone app**, that can be used at site visits statewide to rate properties. The anonymized data is stored in a central database administered by the nonprofit Minnesota Lakes and Rivers. Thirty-six properties were rated in the successful Gull Chain pilot study in 2021 using this technology. The tool will also organize the data in an easy-to-use format for each Lake Steward Evaluator, so that individual lake associations will have all the data at their fingertips.

Midwest Glacial Lakes Partnership Grant

Other states, such as the eight states of the Midwest Glacial Lakes Partnership (midwestglaciallakes.org) are supporting GCOLA Lake Steward in our partnership with Crow Wing Soil and Water Conservation District. We have received **two-year grant** funding starting in October 2021 to support a graduate student to help start Lake Steward programs, bringing “Clean Water, Healthy Habitat” to lakes throughout the County. This plan for increasing Lake Stewardship could be a model for healthier lakes in states throughout the upper midwest.

*Lakes of Phosphorus Sensitivity Significance (LPSS) <https://gisdata.mn.gov/dataset/env-lakes-phosphorus-sensitivity>