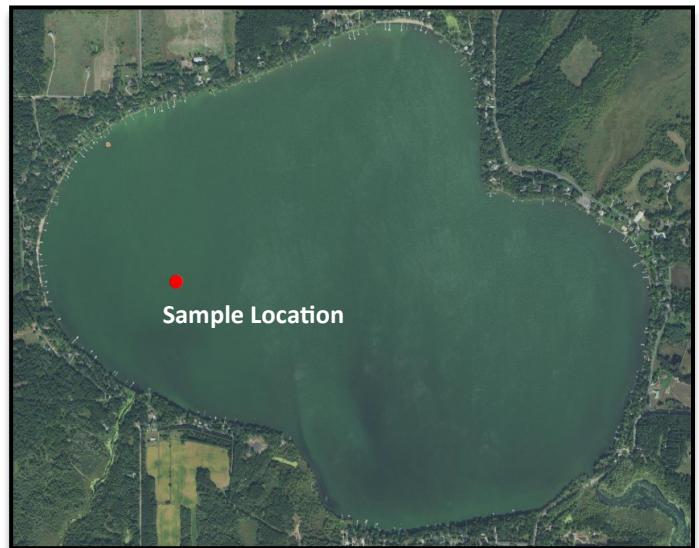


Green Lake Monitoring Report 2025

What: LID volunteers collected Total Phosphorus (TP), Chlorophyll-a, and transparency information every two weeks from late May through early October in Green Lake. SWCD staff provided training and equipment, coordinated lab testing and collected temperature and dissolved oxygen profiles.

Why: Green Lake was added to the MN impaired waters list in 2008 for having high nutrients (too much phosphorus). In 2016, the Green Lake Improvement District and Isanti Soil and Water Conservation District partnered to develop a lake monitoring schedule to collect water samples on Green Lake. The data provides us with an understanding of water quality trends (i.e., is it getting better or worse); furthermore, the data helps us diagnose areas of concern and provides evidence for the need to implement lake improvement projects (great for grant applications). To date, monitoring data has been used to obtain nearly \$900,000 of Federal, State and local grant funding to implement water quality projects around the lake.

	Green Lake
Township	Wyanett
MN Lake ID	330013600
# of Public Boat Access	1
Aquatic Invasive Species	Curly Leaf Pondweed; Eurasian Water Milfoil
Surface Area	822 acres
Maximum Depth	28 ft
Lake Classification	Deep Lake
Lake Health	Impaired



A HUGE THANK YOU to present and past volunteer lake monitors! Volunteers reduce costs and time making lake monitoring feasible. In 2025, Alex and Marissa Dahlin collected lake samples and recorded transparency readings and David Dancik and Lisa Fobbe also recorded transparency readings.

General Definitions

Total Phosphorus (TP): An essential plant nutrient in which an excess can cause severe algae blooms.

Chlorophyll-a (Chl-a): A pigment found in green plants, used to estimate quantity of algae in a lake.

Secchi Transparency: A measure of light penetration in water, an indication to the amount of algae in the water.

MN Clean Water Goals (State Standards) for Green Lake

Total Phosphorus (TP): $\leq 40 \mu\text{g/L}$

Chlorophyll-a: $\leq 14\text{mg/L}$

Secchi Depth: $\geq 4.59 \text{ feet}$

2025 Growing season average
(June-September)

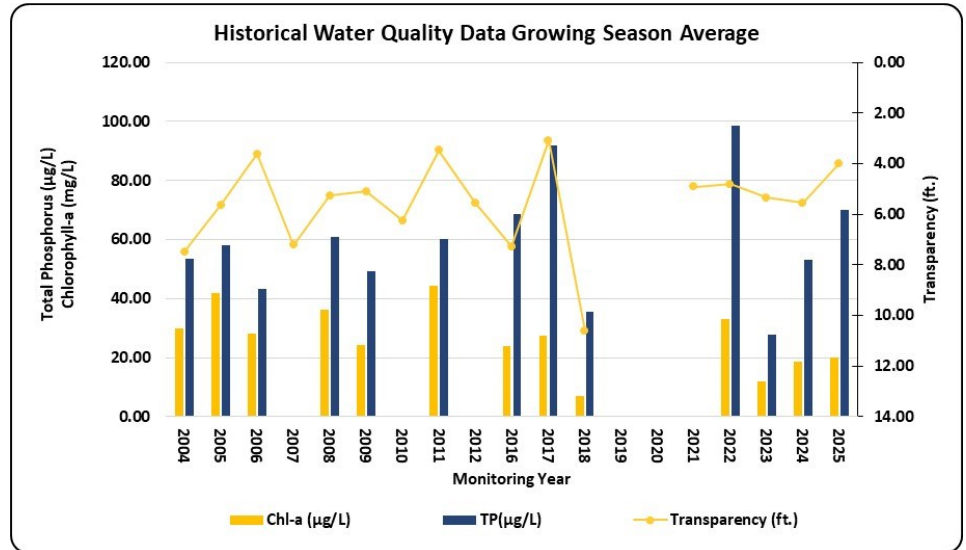
69.9 $\mu\text{g/L}$ (TP)

20.0 mg/L (Chl-a)

3.99 ft. (Secchi)

Year	Grade
2016	C
2017	D
2018	B
2022	C
2023	B
2024	C
2025	C

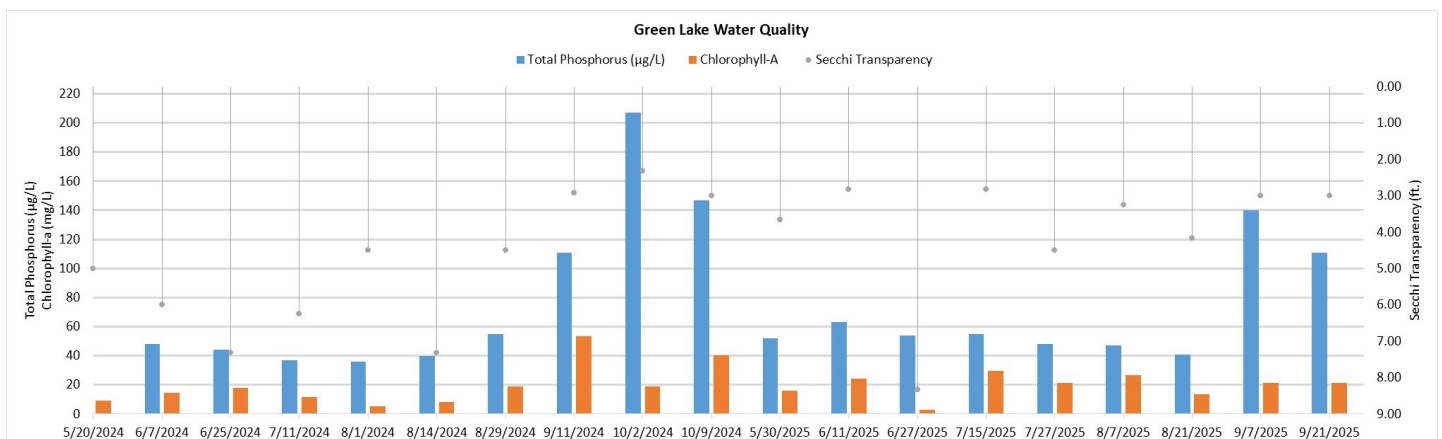
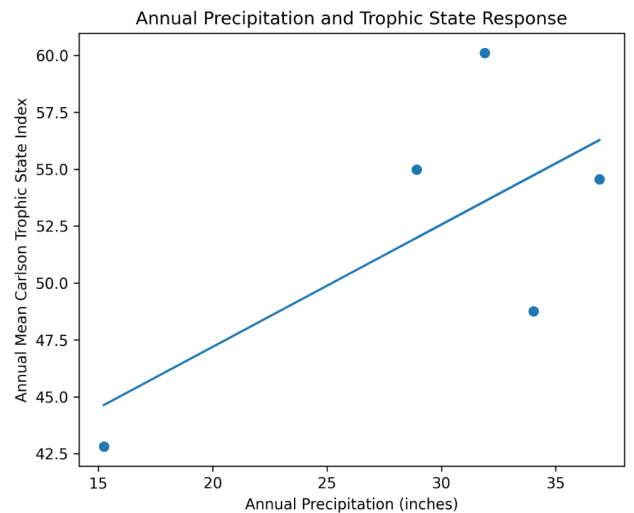
Grades are based on the Metropolitan Council lake grading system, which creates an easy-to-understand way to communicate lake health.



Data from 2025 exceeded all state water quality standards. Although total yearly rainfall was close to normal, the year included several heavy rain events.

The intense rainfall periods appear to play a major role in lake conditions. Wet years—especially those with extreme storms—tend to increase nutrient runoff and worsen algae growth. This means that efforts to reduce nutrients in the watershed may be less noticeable during very wet years, underscoring the need for management strategies that focus on controlling runoff as precipitation becomes more unpredictable.

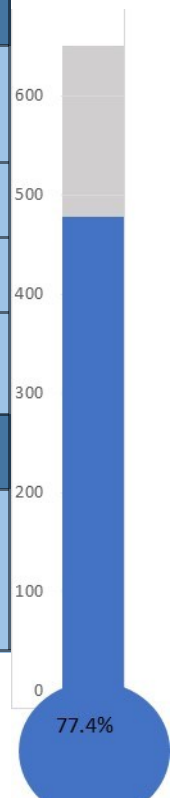
At the same time, it's still important to plan for long-term strategies that reduce nutrient recycling within the lake itself.



Water Health Improvement Projects:

Over the last several years, the SWCD has been working towards installing lake health improvement projects identified in the Green Lake Subwatershed Assessment Study, County Ditch 16 and 23 Multi-purpose Drainage Management Plans and other studies. The studies above identify water quality project locations and types and rank them based on how cost-effective they are at removing phosphorus. The table below summarizes work completed to date by the SWCD. The SWCD continues to seek willing landowners to install projects. If you are interested in improving the lakes health contact us today!

Project	TP (lb/yr)
Shoreline restorations and stormwater reduction projects on private property (29)	31
Cover Crops (597 acres)	58
Curlyleaf Pondweed management (~50 acres)	10
Wetland Restorations (5)	382
TOTAL	481
GOAL* (based on goal set in the 2019 diagnostic study for the watershed only)	617



In 2025 we worked with partners to install 3 wetland restorations and 20 additional acres of soil health practices.

What's planned for 2026? We are working on finalizing plans for a livestock crossing on County Ditch 16 and two wetland restorations on County Ditch 16 and 23. We are seeking additional nearshore stormwater reduction projects. Furthermore, we are targeting crop land along the tributaries draining to Green Lake for soil health improvement practices (cover crops, reduced till, etc.) utilizing federal funding.

2026 Monitoring:

Conduct lake sampling annually as directed by the Green Lake Improvement District. Consider adding monthly hypolimnetic samples. Additionally, within the next 2-3 years we should consider collecting sediment cores to determine actual internal loading rates.



For more information contact: **Isanti SWCD 763-689-3271**

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