

2024 Grove Lake Report

Grove Lake 2024 Monitoring Summary

Lake sites are monitored monthly May-September. Lake monitoring is accomplished through a cooperative effort between lake association volunteers and NFCRWD staff. Monitoring started in 2000, and 2024 marks the 25th year of water sampling on Grove Lake.

During the 2024 open water season volunteers collected lake samples at one location, GL-204 (see map).

In this report you will find a summary of the monitoring results for 2024, along with long-term trends. If you have any questions about these results please contact NFCRWD at 320-346-2869 or chloe@nfcrow.org.



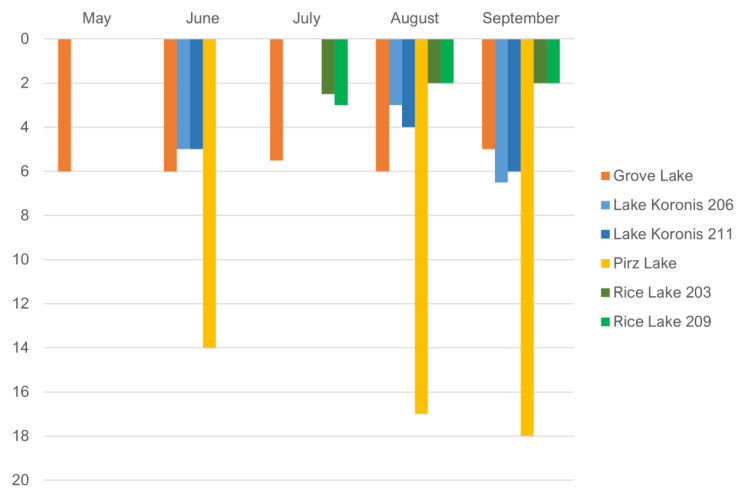
You can find out more information about NFCRWD's programs and projects on the [NFCRWD Website](http://nfcrowd.org) (nfcrowd.org).

NFCRWD Lakes 2024 Monitoring Summary

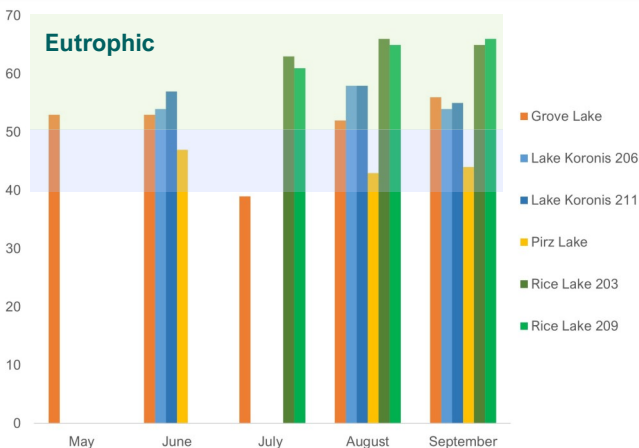
Lake sites are monitored every month during the open water season for water clarity (Secchi disk) and chlorophyll A and phosphorus (lab samples) contained in the water. Phosphorus content is the primary benchmark used to determine whether lakes are overly inundated with nutrients while chlorophyll-A is useful in determining the amount of algae in a lake. Lake monitoring is accomplished using a cooperative effort between lake association volunteers and NFCRWD staff.



2024 Secchi Results



2024 TSI Results

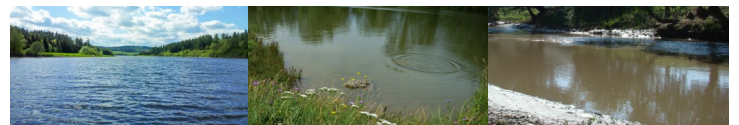


Carlson's Trophic Status (TSI)

A measure used to quantify these results is Carlson's Trophic Status (TSI), which is a benchmark for lake water quality.

Eutrophic (TSI 51-70): Decreased transparency, lack of oxygen in the lower levels during the summer, weed problems evident, warm-water fisheries only.

Mesotrophic (TSI 41-50): Water moderately clear; some probability of no oxygen in the lowest levels during summer.



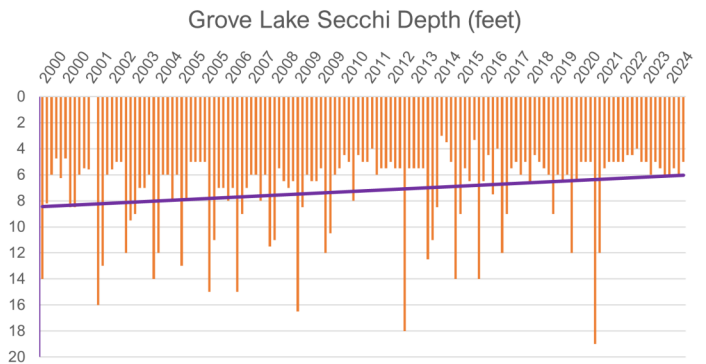
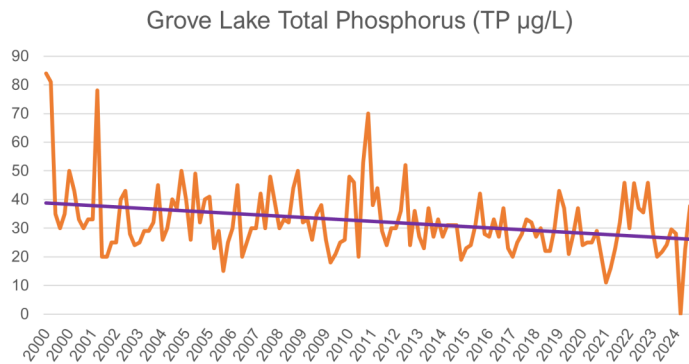
Oligotrophic

Mesotrophic

Eutrophic

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Long Term Grove Lake Trends



Trends GL 204 Years Monitored: 2000 - 2024

Trophic Status Index: No significant trend exists.
Total Phosphorus: **Improving with 99% confidence.**

Chlorophyll-a: No significant trend exists.
Secchi Depth: **Declining with 99.9% confidence.**

What can you do to improve water quality?

Native Shorelines — Native plants can be a good way to decrease erosion and reduce runoff. Native plants have deeper roots than turf grass, which will help in reducing erosion on your shoreline. When most people think of native grasses they think of weeds, but many native grass and flowers can provide a visually appealing shoreline. Native plants also attract wildlife. Taller grasses and flowers will also deter geese from coming on your shoreline.

No-Mow Zone (buffer zone) — A cheaper version to planting a native shoreline, but will take a longer time for the native plants to grow. There is a seed bank in most shorelines, so even though your shoreline could be turf grass right now, if you stop mowing or weed wiping a stretch of shoreline (10-30 feet or more from the waterline), the native plants and flowers will have a chance to grow.

Other Practices — Rain Gardens, Rain Barrels, low or no fertilizer

There may be cost share dollars to install these practices on your property.
Contact the NFCRWD for more information.

Phone: (320) 346-2869
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www.NFCRWD.org

Office Hours:
M-Th 8am-4pm
F 8am-12pm (Afternoon
by appointment only)

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All water monitoring data is provided to the Minnesota Pollution Control Agency each fall and combined into a database for use in water quality assessment (<https://www.pca.state.mn.us/quick-links/eda-surface-water-data>). Current and historical lake data for each site monitored by the district is available online by visiting the RMB Environmental Labs website (lakes.rmbel.com).

Thank you to the lake associations and their members who assisted with water quality monitoring this year, especially Roy Birk, Leon Birk, Jeff Crary, Lyle Fettig, John Hanson, Patty O'Leary, and Art Rittenhouse.