



## Lake Koronis 2020 Monitoring Summary

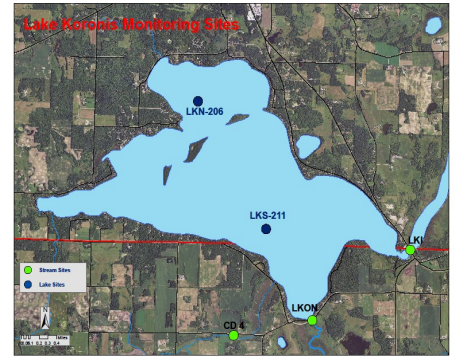
Open water season started in 2020 with an ice out on April 8th 2020.

Lake sites are monitored monthly May-September. Lake monitoring is accomplished through a cooperative effort between lake association volunteers and NFCRWD staff.

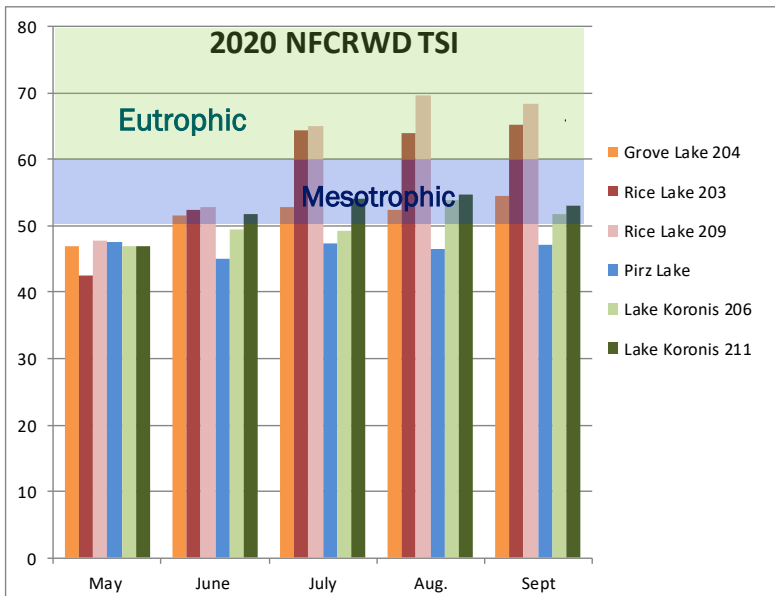
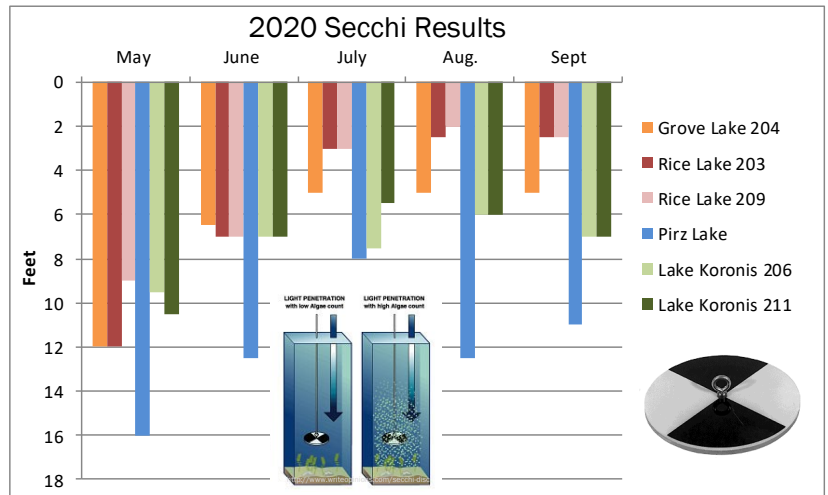
During the 2020 open water season the volunteers collected lake samples at two locations (LKS-211 and LKN-206). (see map)

In this report you will find a summary of the monitoring results for 2020, along with long term trends. If you have any questions about these results please contact NFCRWD at 320-346-2869 or [technfcrwsd@tds.net](mailto:technfcrwsd@tds.net).

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



Lake sites are monitored every month during the open water season for water clarity (Secchi disk); 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.

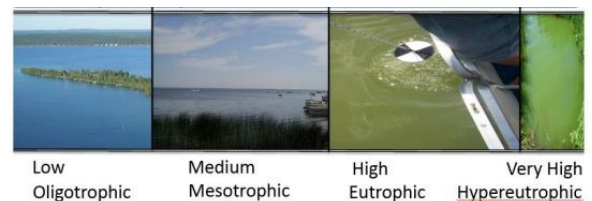


A measure used to quantify these results is Carlson's Trophic Status (TSI), which is a benchmark for lake water quality.

### Carlson's Trophic Status (TSI)

**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.



## Lake Koronis Water Quality

### Long Term Lake Koronis Trends

#### Trends LKS 211 (South Site)

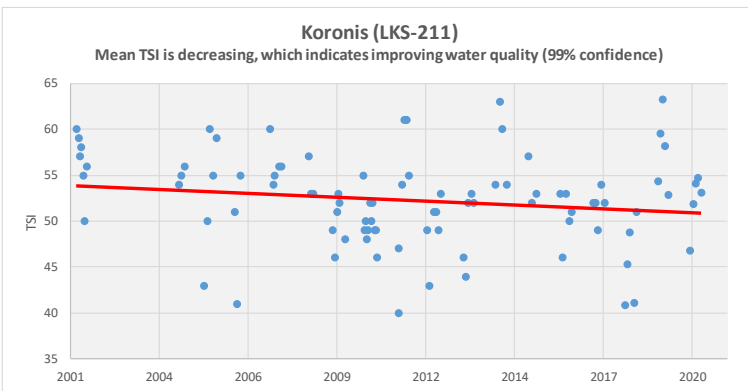
Years Monitored: 2001 - 2020

Total Phosphorus: **Improving with 99% confidence.**

Chlorophyll-a: No significant trend exists.

Secchi Depth: No significant trend exists.

Trophic Status Index: **Improving with 99% confidence.**



#### Trends LKN 206 (North Site)

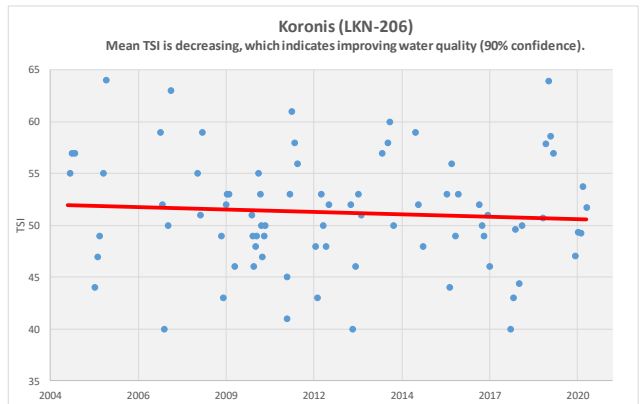
Years Monitored: 2004 - 2020

Total Phosphorus: **Improving with 99.9% confidence.**

Chlorophyll-a: Improving with 80% confidence.

Secchi Depth: No significant trend exists.

Trophic Status Index: **Improving with 90% 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.

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 RMB Labs at [www.rmbel.info](http://www.rmbel.info) and utilizing the lake data portion of that site.

Thank you to the lake associations and their members who assisted with water quality monitoring this year, especially John Hanson, Al Schmidtbauer, Art Rittenhouse, Leonard Crowe and Tom Weber.



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**Board Meetings**  
are the second Monday  
of each month.

7 p.m.

April - November

1 p.m.

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