LOVE · HELP · SAVE

COMO LAKE

Make a difference

Como Lake 2020 Water Quality Results

How is Como Lake doing?

Capitol Region Watershed District (CRWD) is committed to improving water quality in Como Lake, a beloved water resource in Saint Paul, Minnesota.

The biggest challenge facing Como Lake is too much phosphorus, a pollutant carried to the lake through stormwater runoff that builds up in the lake overtime. High levels of phosphorus have led to algae blooms, fish kills, and strong odors mid-summer. Also problematic is the invasive aquatic plant Curly-Leaf Pondweed (CLP) that dominates Como Lake's ecosystem, making it difficult for native plants to grow.

With the help of the community and agency partners, CRWD developed the Como Lake Management Plan in 2019 to define an approach for reducing phosphorus, improving water quality, and supporting ecological health in Como Lake over the next 20 years.

Understanding Como Lake's Water Quality

CRWD, Ramsey County, and the MN Department of Natural Resources monitor Como Lake for water quality and biological parameters. Data is critical for understanding Como Lake's complex dynamics and addressing water quality issues using a science-based approach.

Data was collected throughout 2020 to observe Como Lake's response to the projects that were completed within the year. While the 2020 data only represents the first year following the projects, CRWD's analysis shows positive results—see next page for details! Continued monitoring will show the long-term results of these projects.

2020 Como Lake Projects

Herbicide Treatment

The herbicide Fluridone was applied to Como Lake in April 2020 as the first major effort to control Curly-Leaf Pondweed (CLP), an invasive aquatic plant. The goal was to reduce CLP so native plants can thrive and to decrease the amount of decaying CLP plants that add phosphorus back to the water after die-off.

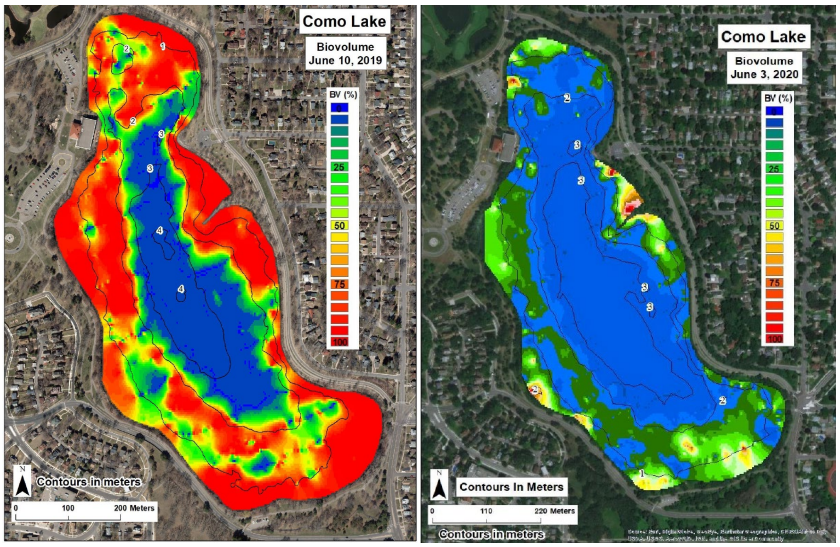
Alum Treatment

In May 2020, an alum treatment was completed on Como Lake to reduce phosphorus being released from the lake bottom. Around 25,000 gallons of alum were applied to all areas 6+ feet deep. Results were immediate with water clarity up to 6 feet following the application. It is expected to reduce phosphorus in Como Lake for years to come.

2020 Monitoring Data—The Results Are In!

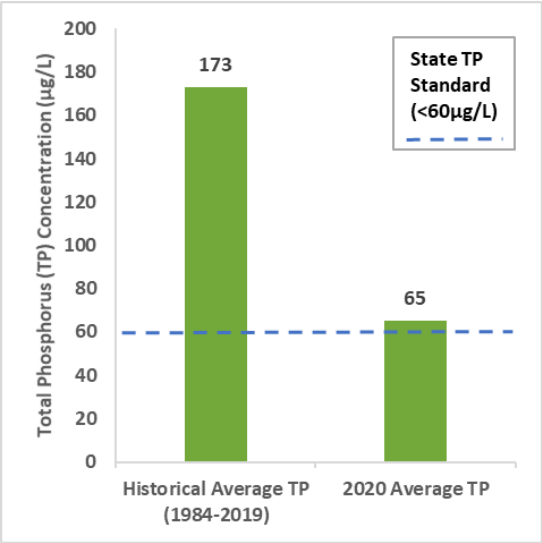
Curly-Leaf Pondweed

Curly-Leaf Pondweed (CLP) was significantly reduced after the 2020 herbicide treatment. The number of plants decreased by 56%, and turions (the reproductive structures of CLP that resemble small pinecones) decreased by 79%. Native plants were slow to rebound in 2020 due to decades of seedbank degradation from the CLP infestation. The images shown are biovolume surveys of plant densities in Como Lake between 2019 and 2020, where red areas represent CLP.



Phosphorus

Concentrations of total phosphorus (TP) in Como Lake decreased by 62% in 2020 when compared to the historical average (1984-2019). Prior to the alum and herbicide treatments, the historical annual average TP concentration was 173 µg/l—nearly three times the Minnesota state standard (<60 µg/L). The 2020 annual average TP concentration was 65 µg/L and nearly met the state standard for the first time on record.



What's Next?

CRWD will continue working toward the goals of the Como Lake Management Plan. Project plans in 2021 include an additional herbicide treatment to control CLP, shoreline maintenance, fish surveys, and stormwater runoff management. Continued improvements are expected in the coming years as Como Lake settles into a new equilibrium and additional projects help reduce phosphorus.

Future monitoring will further reveal the positive impacts of water quality improvement projects, including the benefits from the recently completed Como Golf Course projects which will begin treating stormwater runoff in spring 2021. Construction of these projects began in July 2020 and include a large rain garden, underground infiltration system, and iron-enhanced sand filter at Holes 3 and 7. This project will prevent 37 million gallons of runoff and 55 pounds of phosphorus from reaching Como Lake each year.

Learn More About Como Lake!
www.capitolregionwd.org/comolake

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