Lake Augusta

2024 Water Monitoring Report

LMRWMO
LOWER MISSISSIPPI RIVER
WATERSHED MANAGEMENT ORGANIZATION

Watershed

Lake Augusta is located in the City of Mendota Heights, within the Lower Mississippi River Watershed Management Organization (LMRWMO). Land use within the watershed is primarily institutional (cemetery), commercial, and residential (low and high density). Lake Augusta was placed on Minnesota's 303(d) List of Impaired Waters in 2010 for aquatic recreation due to excess nutrients (phosphorus).

Lake Details

Max Depth: 33 feet

Watershed Size (shown): 420 acres

Major Watershed: Mississippi River

MPCA Lake Classification: Deep

Met Council Lake Grade (2024): F

Monitoring

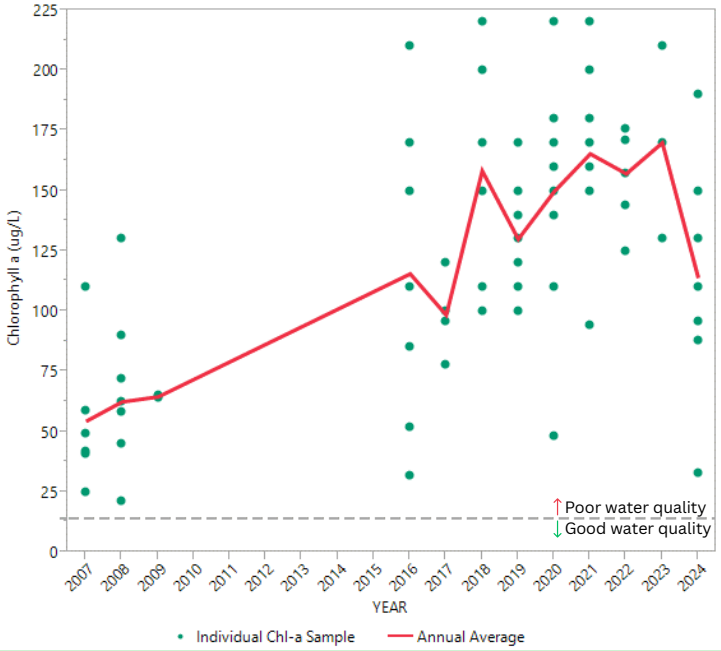
Lake Augusta continues to not meet the MPCA's deep lake water quality criteria. Since 2016, the LMRWMO has monitored the lake through the Metropolitan Council's CAMP program. In 2022, more intensive water quality monitoring was undertaken by an environmental consulting firm in order to collect a broader set of monitoring parameters (chloride, pH, specific conductance, temperature, total suspended solids, and turbidity) at various depths in the water column.

Water Quality

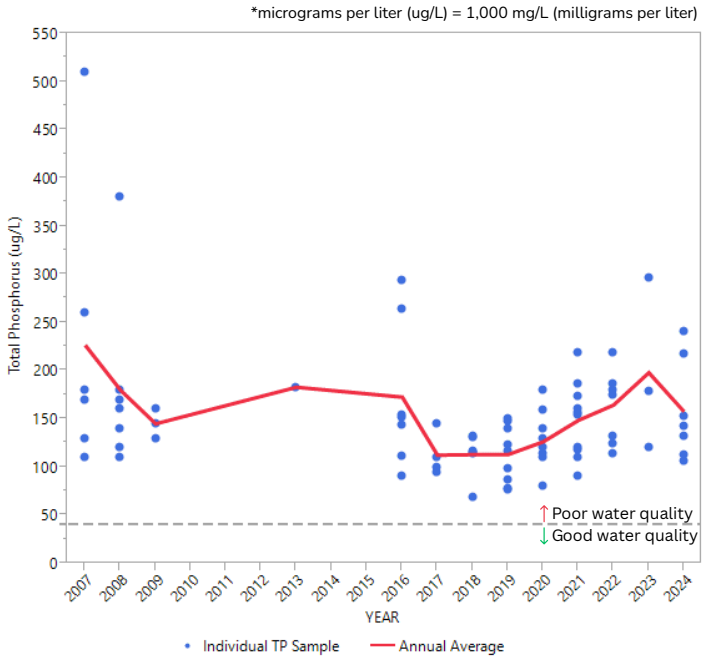
Monitoring data from 2024 found that none of the water quality standards were met. Total phosphorus average and minimum increased from 2023, whereas the chlorophyll-a average and minimum actually decreased. Secchi readings remain very poor which is consistent with previous monitoring efforts. The below table shows data for 2024.

Water Quality Parameters	MPCA Standard	Minimum	Maximum	Average
Chlorophyll-a (ug/L)	14	33	190	114
Total Phosphorus (ug/L)	40	106	241	158
Secchi Depth (m)	1.4	0	0.25	0.15

Water Quality Data 2007 - 2024



*micrograms per liter (ug/L) = 1,000 mg/L (milligrams per liter)



Chlorophyll-a*
Chlorophyll-a is the pigment that gives plants their green color. High levels indicate excessive algae from high nutrient levels in the lake. Low chlorophyll-a levels indicate good water quality. MPCA standard is 14 ug/L (dashed line).

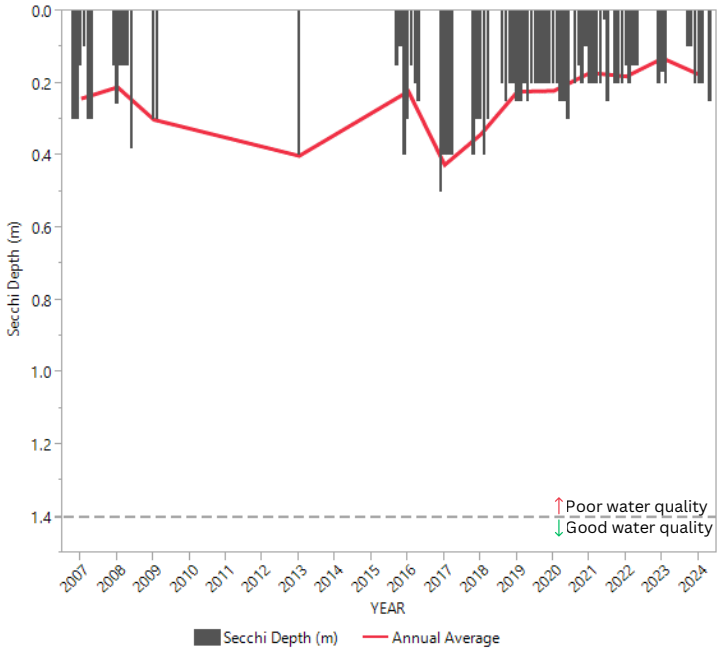
Phosphorus*
Phosphorus is a nutrient required for plant growth. High phosphorus levels can lead to algae blooms, turning water green. Low phosphorus levels indicate good water quality. MPCA standard is 40 ug/L (dashed line).

Watershed Projects

In 2017, the LMRWMO implemented an aluminum sulfate treatment to improve water quality which provided slight phosphorus reductions but not enough to improve water quality.

The LMRWMO and City of Mendota Heights lead a study of the lake to identify long term implementation actions to improve lake water quality. The study has shown that Double Crested Cormorants feces have a large impact on the lakes poor water quality.

The City of Mendota Heights and LMRWMO are considering potential projects or initiatives from the study for future implementation.



Secchi Depth
A black and white secchi disc is lowered into the water until no longer visible and measures water clarity. High secchi disc depths indicate good water quality. MPCA standard is 1.4 m (dashed line).

How can you get involved?

Anyone can help improve water quality! Installing a raingarden increases water infiltration and reduces pollution runoff that can negatively impact local water quality. The LMRWMO offers grants to residents to install raingardens, native gardens, and native shoreline plantings as part of the Dakota County Soil and Water Conservation District's **Landscaping for Clean Water** program.

Additional Information: MN Impaired Waters Map: https://www.pca.state.mn.us/water/impaired-waters-viewer-iwav
DNR Lake Finder: https://www.dnr.state.mn.us/lakefind/index.html
LMRWMO Contact: Joe Barten, Administrator - joe.barten@co.dakota.mn.us - 651-480-7784
LMRWMO Website: www.LMRWMO.org

DAKOTA COUNTY
SOIL & WATER
CONSERVATION DISTRICT