

Silver Lake

Located in Shorewood, Silver Lake sits at the edge of the watershed district. It is the only lake in the District with a native wild rice population, a rarity in metro area lakes!

During June through September of each year, District staff visit the lake every two weeks to collect water samples and take readings. Samples are sent to a laboratory to be tested for nutrients and other compounds. Staff also measure water clarity by lowering a Secchi disk into the water and measuring how deep it goes before it is no longer visible. The data indicates the lake's health based on standards set by the Minnesota Pollution Control Agency (MPCA).

Silver Lake is classified as a "Shallow Lake" by the MPCA. To be considered healthy, the lake must have very low average phosphorus and chlorophyll-a levels and average water clarity of 1.0 meter (3.3 feet) or greater. See summary below. Additional details are located on the next page.



Total Phosphorus: No significant trend. In 2022, the lake met the MPCA standard with an average total phosphorus level of 0.053 mg/L.

Chlorophyll-a: No significant trend. In 2022, the average reading for chlorophyll-a was 13.0 µg/L.



Water clarity: Since 2017, the lake has consistently met the standard for water clarity. This is correlated with the reduced water levels that occurred after the outlet became cleared. The average reading in 2022 was 1.5 meters.

Lake & watershed characteristics

Lake size	71 acres
Average lake depth	5 feet
Maximum lake depth	14 feet
MPCA lake classification	Shallow lake
Watershed size	391 acres
Impervious surface	14% of watershed
Impairment listing	Nutrients
Common fish	Black Bullhead, Fathead Minnow, Central Mudminnow
Invasive species	Curly-leaf Pondweed, Purple Loosestrife



Watershed Boundary



Top 3 things you can do at HOME to protect the LAKE



Protect storm drains.

Prevent grass clippings, lawn fertilizer and debris from entering storm drains so they don't end up in the lake.



Pick up dog waste.

Did you know that pet waste pollutes water? It's full of nutrients and bacteria. Bag it and toss it in a trash can.



Reduce stormwater runoff.

Reduce the flow of stormwater off your property by installing a rain garden, native planting, or rain barrel.

Silver Lake Water Quality by the Numbers

The graphs below show water quality trends over time with the red line showing the MPCA standard for shallow lakes. Over the last decade, **Silver Lake** has met the clean water standards set by the MPCA about half the time.

Averages

★ = Standard met

Water Quality Parameter	Historical Average	2022 Average	MPCA Standard: Shallow Lakes
Total Phosphorus (mg/L)	0.091	0.053 ★	< 0.060
Chlorophyll-a (µg/L)	43.7	13.0 ★	< 20
Water Clarity (meter)	1.2 ★	1.5 ★	> 1.0

Native Aquatic Plant Diversity

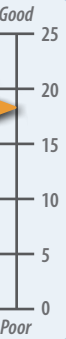
How does **Silver Lake** compare to **other lakes** in the District?



Lake Ann ranks highest at 25 species.

18 species

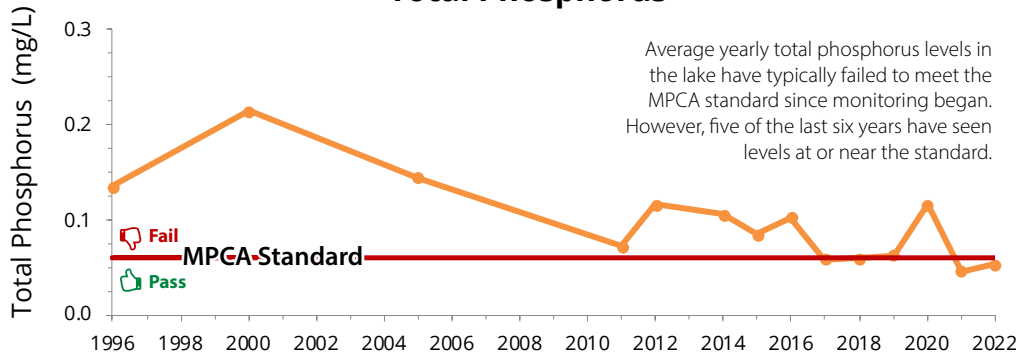
Hyland & Round lakes rank lowest at 4 species.



Trends Over Time: 1972-present

Read the **Water Resources Report** at rpbcbd.org/annualreport

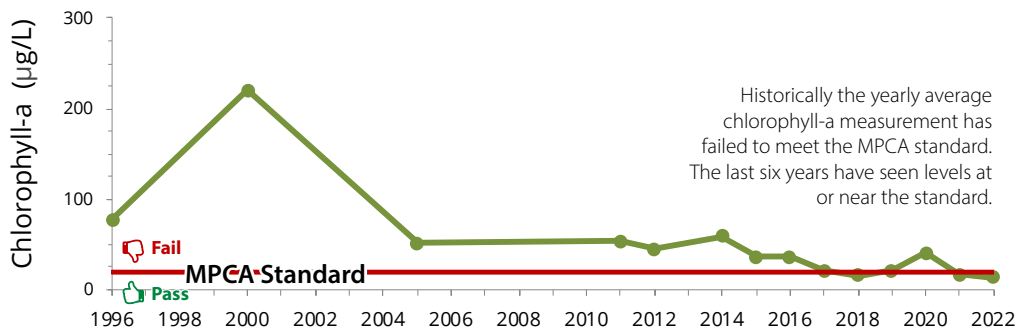
Total Phosphorus



Phosphorus is a nutrient plants and algae need to grow. Too much phosphorus may cause algae blooms.

Filamentous algae bloom

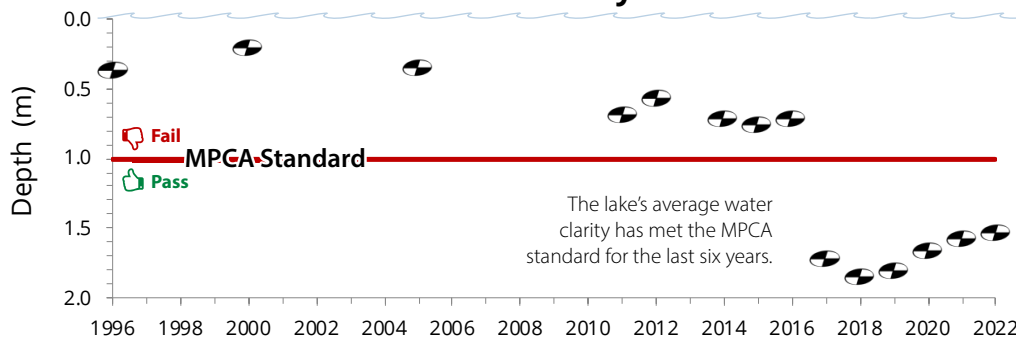
Chlorophyll-a



Chlorophyll-a is the main pigment in algae and indicates how much algae is growing in the water. High levels mean excess growth.

CSIRO

Water Clarity



Water clarity is measured by lowering a Secchi Disk into the water. The depth at which the disk is no longer visible is the water's clarity measurement.



Grants for Shoreline Restoration

The watershed district offers up to **75% cost share** assistance for restoring your shoreline! Learn more: rpbcbd.org/grants



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