RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

2022 Update

Hyland Lake

Located in Bloomington, Hyland Lake is surrounded by Hyland Lake Park Reserve, a Three Rivers Park District facility. Visitors can paddle the lake in the summer, hike nearby trails, and ski in the winter.

During June through September of each year, Three Rivers Park 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).

Hyland 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: A second dose of aluminum sulfate (alum) was applied in 2022 by Three Rivers Park District. Alum reduces algae growth by trapping phosphorus, an algae food source, in lake sediments. In 2022, the lake met the MPCA standard with an average total phosphorus level of 0.034 mg/L. The lake has consistently met the standard since the first alum dose in 2019.

Chlorophyll-a: In 2022, the average reading for chlorophyll-a was 7.6 µg/L. Levels have dropped since the alum treatment.

Water clarity: Since the first alum treatment, the lake has met the standard for water clarity for the last four years. The average reading in 2022 was 1.7 meters.

Plants: Surveys in 2020-2022 for invasive Curly-leaf Pondweed (CLP) indicate a robust population, likely due to improved water clarity after the 2019 alum treatment. In 2022, Fluridone herbicide was used to treat CLP following ice-out and dramatically reduced CLP presence.
A late summer plant survey revealed low numbers of native plants, which may have been influenced by the lake's lowest water level since 1979.

Lake & watershed characteristics

Lake size	84 acres
Average lake depth	7.5 feet
Maximum lake depth	12 feet
MPCA lake classification	Shallow lake
Watershed size	922 acres
Impervious surface	17% of watershed
Impairment listing	Nutrients
Common fish	Bluegill, Black Crappie, Walleye, Black Bullhead, Largemouth Bass
Invasive species	Curly-leaf Pondweed

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.

Hyland 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**. Three Rivers Park District provides most of the water quality and plant survey data for Hyland Lake.

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Averages

★ = Standard met

Water Quality Parameter	Historical Average	2022 Average	MPCA Standard: Shallow Lakes
Total Phosphorus (mg/L)	0.090	0.034 ★	< 0.060
Chlorophyll-a (µg/L)	54.1	7.6 ★	< 20
Water Clarity (meter)	1.2 ★	1.7 ★	> 1.0

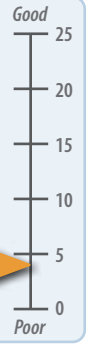
Native Aquatic Plant Diversity

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

Lake Ann ranks highest at 25 species.

Hyland & Round lakes rank lowest at 4 species.

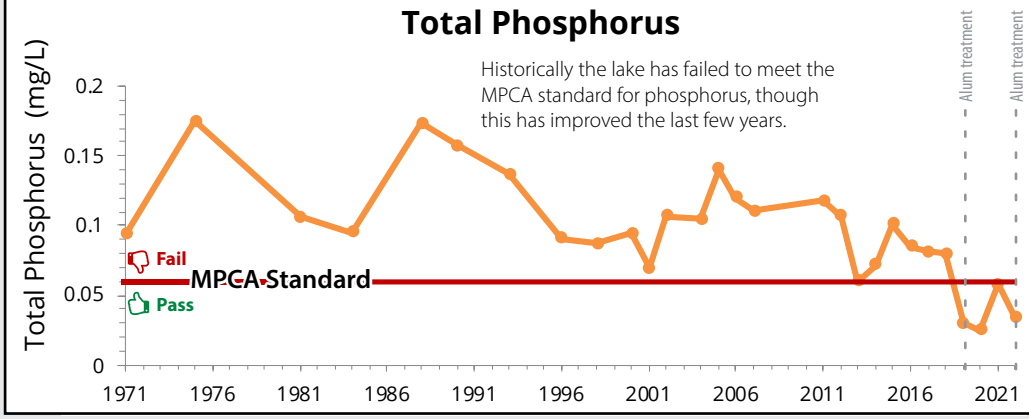
4 species



Trends Over Time: 1972-present

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

Total Phosphorus



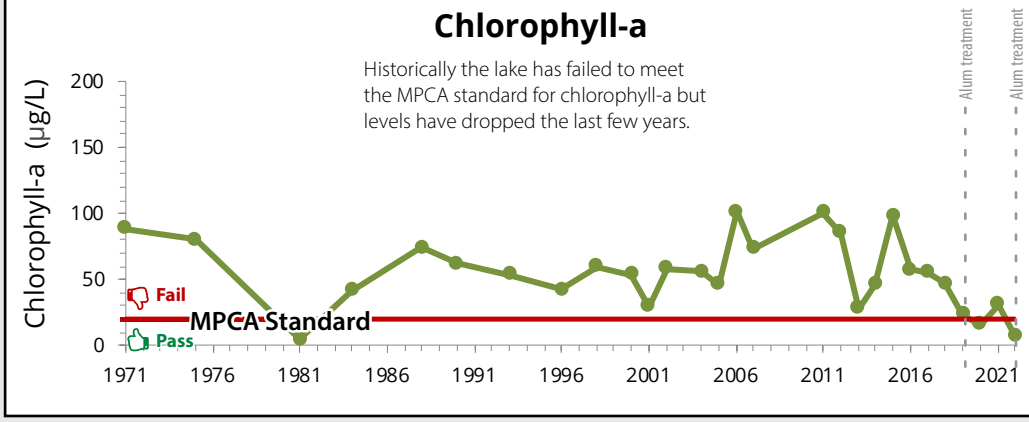
Historically the lake has failed to meet the MPCA standard for phosphorus, though this has improved the last few years.

Hyland Lake received an alum treatment in 2019. Alum limits the availability of phosphorus in lakes to control algae growth & improve water clarity.

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

Filamentous algae bloom

Chlorophyll-a



Historically the lake has failed to meet the MPCA standard for chlorophyll-a but levels have dropped the last few years.

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

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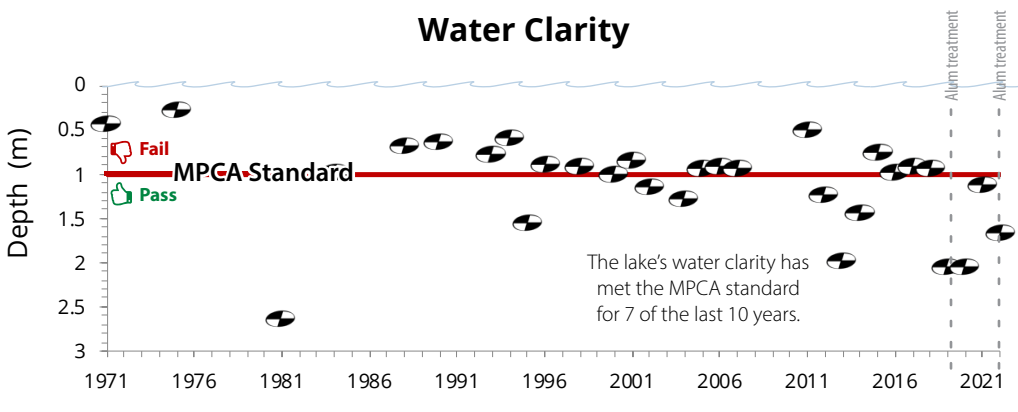
Water Clarity



The lake's water clarity has met the MPCA standard for 7 of the last 10 years.

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: rpbcwd.org/grants

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

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