

# 2022 Update

# **Rice Marsh Lake**

Located in both Eden Prairie and Chanhassen, Rice Marsh Lake is aerated in the winter. This management practice helps keep bluegill sunfish alive so that they can feed on invasive carp eggs in the spring.

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).

Rice Marsh 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**: Levels have decreased since monitoring began in 1972. In 2022, the lake met the MPCA standard with an average total phosphorus level of 0.037 mg/L.

**Chlorophyll-a:** Levels have decreased since monitoring began in 1972. In 2022, the average reading for chlorophyll-a was 12.8  $\mu$ g/L.



**Water clarity:** Since 1972, average Secchi disk depths have increased, and the lake consistently meets the standard for water clarity. The average reading in 2022 was 2.4 meters.



**Plants:** A plant survey was conducted in 2022 to assess aquatic vegetation in the lake. Coontail was the most common plant found at 94% of sites, and Flatstem Pondweed was the second most common plant, found at 62% of sites. Overall, plant growth in Rice Marsh covered 100% of the lake area. Watermeal and duckweed covered approximately 50% of the lake.

## Lake & watershed characteristics

Lake size	83 acres		
Average lake depth	5 feet		
Maximum lake depth	11 feet		
MPCA lake classification	Shallow lake		
Watershed size	966 acres		
Impervious surface	32% of watershed		
Impairment listing	Nutrients		
Common fish	Bluegill, Northern Pike, Black Crappie, Yellow Bullhead, Pumpkinseed Sunfish		
Invasive species	Curly-leaf Pondweed, Purple Loosestrife, Common Carp		



## 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.

# **Rice Marsh Lake Water Quality by the Numbers**

Over the last few years, Rice Marsh Lake has met the clean water standards set by the MPCA. The graphs below show water quality trends over time with the red line showing the MPCA standard for shallow lakes.

Averages *= Standard met			
Water Quality Parameter	Historical Average	2022 Average	MPCA Standard: Shallow Lakes
Total Phosphorus (mg/L)	0.113	0.037 ★	< 0.060
Chlorophyll-a (µg/L)	31.7	12.8 ★	< 20
Water Clarity (meter)	1.7 ★	2.4 ★	> 1.0



### **Trends Over Time: 1972-present**

Read the Water Resources Report at rpbcwd.org/annualreport



restoring your shoreline! Learn more: rpbcwd.org/grants

PURGATORY **BLUFF CREEK** WATERSHED DISTRICT

www.rpbcwd.org

♥fo) @rpbcwd