

## Duck Lake

Located in Eden Prairie, Duck Lake is one of the District's shallow lakes. Since 2011, it has seen improvement in water quality and met the Minnesota Pollution Control Agency's clean water standards for several years.

From June to September every 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).

Duck 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.

**P Total Phosphorus:** No significant trend. In 2023, the lake met the MPCA shallow lake standard (<0.06 mg/L) with an average total phosphorus level of **0.057 mg/L**.

**Chlorophyll-a:** No significant trend. In 2023, the lake met the MPCA shallow lake standard (<20 µg/L) with the average for the year at **15.2 µg/L**.

**Water clarity:** No significant trend. The lake consistently meets the MPCA shallow lake standard for water clarity (>1.0 meters). The average reading in 2023 was **1.6 meters**. Typically, staff are able to lower the Secchi disk to the lake bottom and still see it, so water clarity is likely better than what the data indicates.

**Fish:** Over the past few years, Duck Lake has had consecutive winter fish kills due to depleted oxygen levels. This has reduced native fish survival and is considered a natural process for a shallow lake.

**Plants:** Coontail was the most dominant plant species (96% of sites) followed by Flatstem Pondweed at 52% of sites. Overall, plant growth in Duck Lake covered 100% of the lake surface. The number of plants increased from 6 in 2020 to 16 in 2023. This is partially due to the inclusion of the west bay and very low densities of additional floating and emergent native species that previously were not found (Longleaf Pondweed, Arrowhead, American Lotus, and Hardstem Bullrush).

### Lake & watershed characteristics

Lake size	41 acres
Average lake depth	3.4 feet
Maximum lake depth	8 feet
MPCA lake classification	Shallow lake
Watershed size	233 acres
Impervious surface	20% of watershed
Impaired Waters listing	Not listed
Common fish	Bluegill, Black Crappie, Largemouth Bass, Green Sunfish
Invasive species	Curly-leaf Pondweed, Purple Loosestrife, Eurasian Watermilfoil, Goldfish

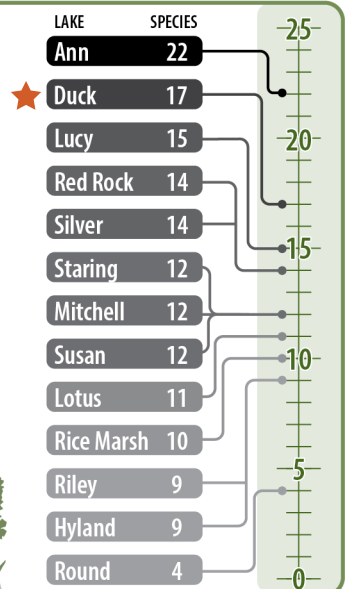


### Watershed Boundary



### Native Aquatic Plant Diversity

How does **Duck Lake** compare to **other lakes** in the District in **number of native plant species?**



# Duck Lake Water Quality by the Numbers

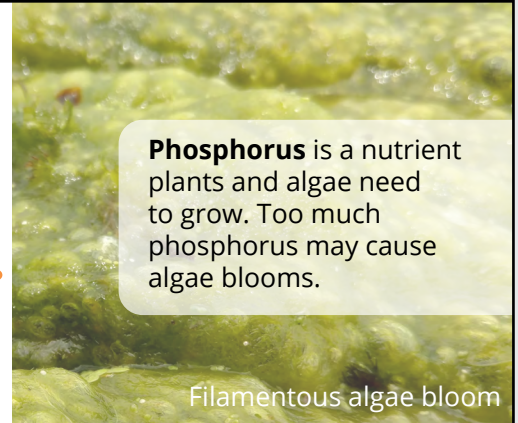
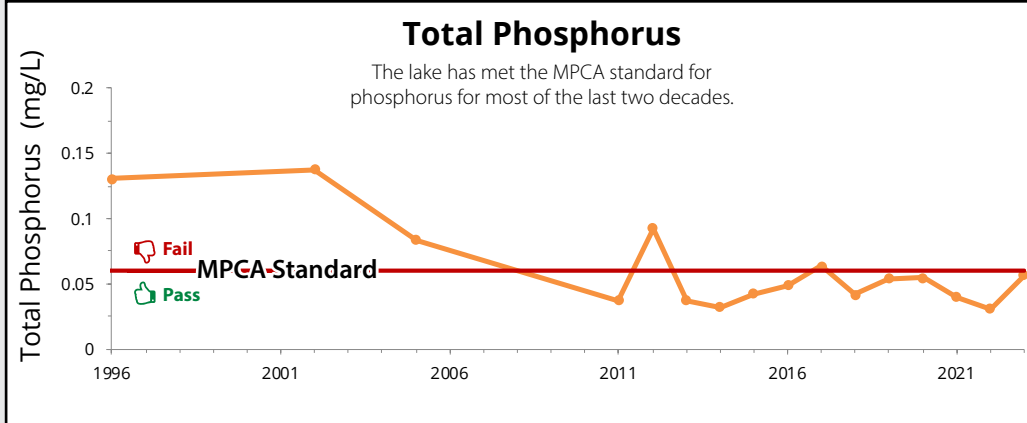
The graphs below show water quality trends over time with the red line representing the MPCA standard for shallow lakes. Over the last decade, Duck Lake has typically met the clean water standards set by the MPCA.

## Water Quality Report Card

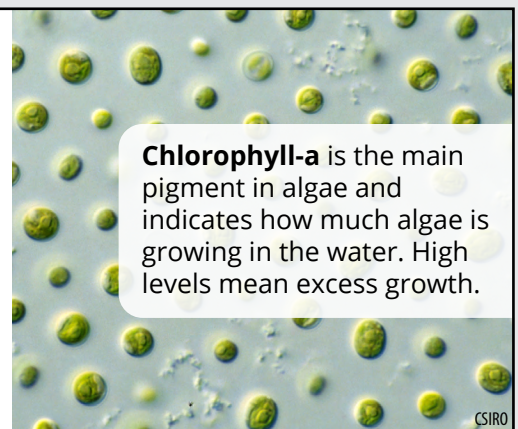
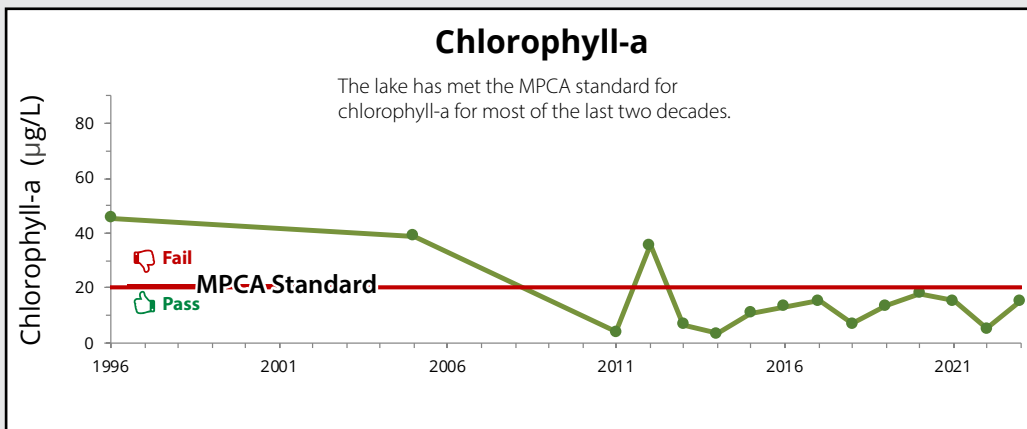
[rpbcwd.org/grades](http://rpbcwd.org/grades)



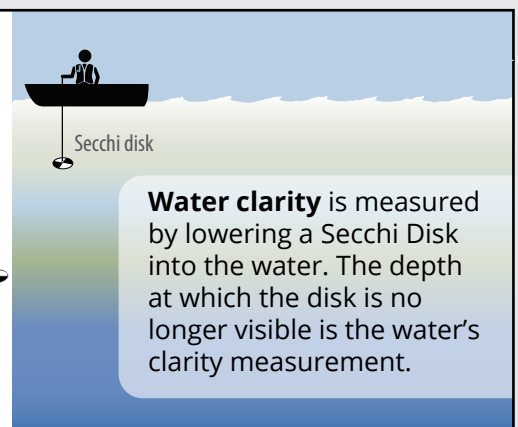
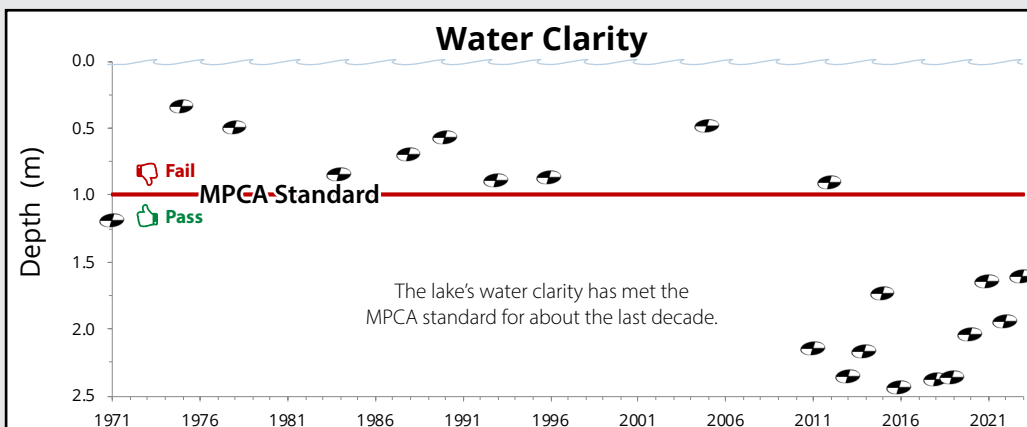
### Trends Over Time: 1972-present



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



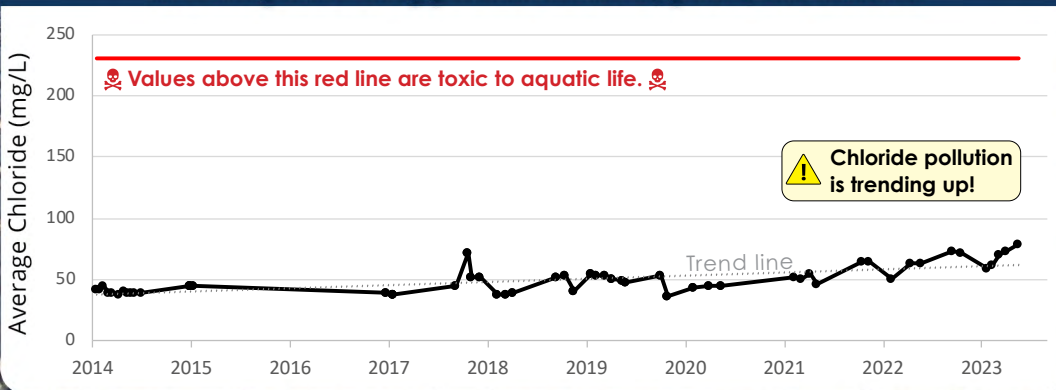
**Chlorophyll-a** is the main pigment in algae and indicates how much algae is growing in the water. High levels mean excess growth.



**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.

## Chloride: A Growing Concern

Chloride permanently pollutes our lakes, ponds, and streams!



### What can I use instead of winter de-icers?

All affordable & effective residential de-icing products contain chloride, even those labeled as "eco-friendly" or "pet safe."

Focus instead on reducing build up of ice on your property:

- Shovel early & often
- Prevent ice formation, avoid driving or walking on snow
- Pile snow where it won't melt & refreeze on walkways

ONE TEASPOON of SALT POLLUTES 5 GALLONS of WATER FOREVER

Learn more [rpbcwd.org/salt](http://rpbcwd.org/salt)