

## 2023 Update

# **Staring Lake**

Staring Lake is located in Eden Prairie, west of Flying Cloud Drive and north of Pioneer Trail. Staring has a public boat ramp and a fishing pier. The Eden Prairie Outdoor Center is also located on its shores, off of Staring Lake Parkway.

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).

Staring 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: Since carp management began in 2011, levels have decreased. In 2023, the lake did not meet the MPCA shallow lake standard for total phosphorus (<0.06 mg/L). The 2023 average was 0.101 mg/L, which in part was likely due to low water levels and a whole-lake herbicide treatment in 2022.



Chlorophyll-a: No significant trend. In 2023, the average reading for chlorophyll-a was 87.6 µg/L, which failed to meet the MPCA standard for shallow lakes (<20 µg/L), and was significantly higher than recent years. In an August sample, blue-green algae numbers were high, indicating a probable presence of toxins at that time.

Water clarity: Since carp management began in 2011, clarity has improved. The average reading in 2023 was 0.9 meters, which failed to meet the MPCA standard (>1.0 m).

Fish: Electrofishing was used to monitor Common Carp, an invasive species that harms water quality by stirring up lake bottom sediments. Carp biomass is decreasing in the lake with little to no reproduction detected the last six seasons. However, near record low water levels led to a winterkill of native fish, which eat carp eggs. Bluegill were stocked in late spring to offset this loss, but not before carp reproduction occurred. This was the first time since 2015 that a significant carp reproduction event has occurred.

Plants: In 2022, a herbicide treatment successfully treated Eurasian Watermilfoil with none of this invasive species observed in 2023. Unfortunately, the reduced vegetation combined with low water levels led to reduced water quality. Nutrient levels should improve as native vegetation expands across the lake. The District will continue to monitor the plant community to assess native vegetation and keep invasives in check.

#### Lake & watershed characteristics

Lake size	166 acres
Average lake depth	7 feet
Maximum lake depth	16 feet
MPCA lake classification	Shallow lake
Watershed size	10,158 acres
Impervious surface	21% of watershed
Impairment listing	Mercury & nutrients
Common fish	Bluegill, Black Crappie, Black Bullhead
Invasive species	Curly-leaf Pondweed, Eurasian Watermil- foil, Brittle Naiad, Common Carp



#### Watershed Boundary



## **Native Aquatic Plant Diversity** How does Staring Lake compare to other lakes in the District in **number** of native plant species?



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### **Staring 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, **Staring Lake** has failed to consistently meet clean water standards set by the MPCA.

2015

2016

2017

2018

2019

2020

2021

2022

2023

#### Water Quality Report Card

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