

# BIRCH LAKE



## QUICK FACTS

Subwatershed Size	647 acres
Surface Area	127 acres
Maximum Depth	6 ft
Average Depth	3 ft

### Common Fish

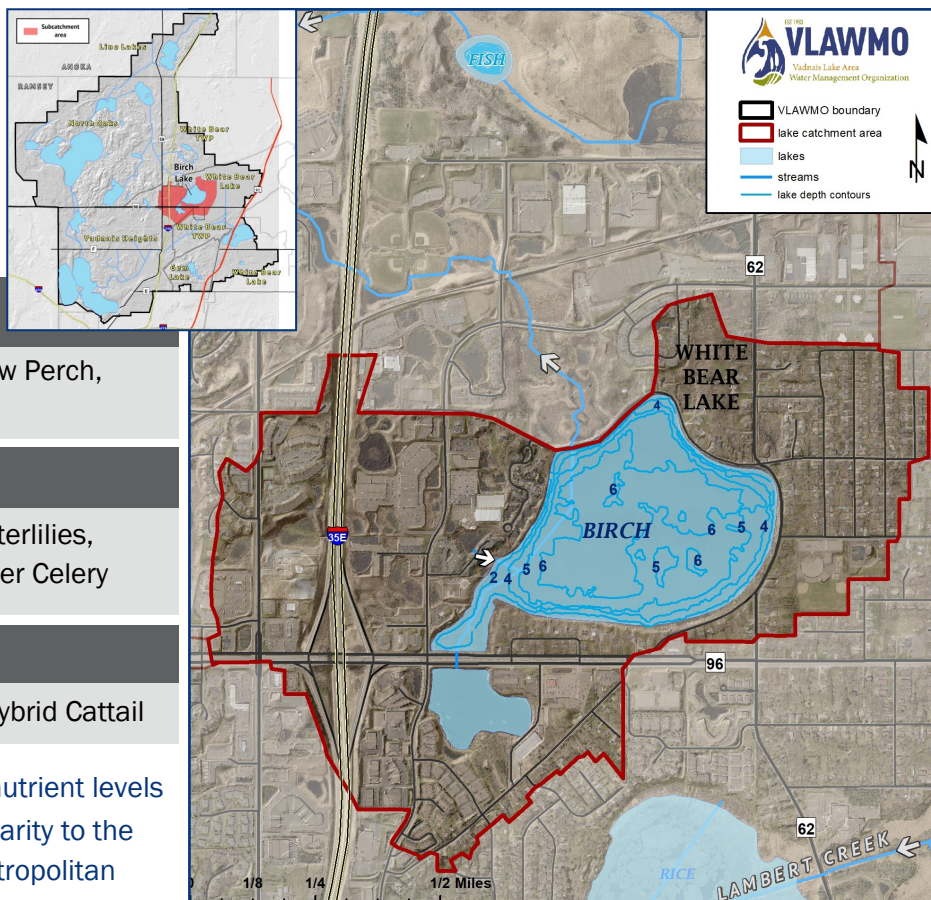
Largemouth Bass, Northern Pike, Yellow Perch, Black Crappie, Bluegill

### Vegetation Notes

Fern Pondweed (dominant), White Waterlilies, Coontail, Chara, Naiads, Cabbage, Water Celery

### Invasive Species

Eurasian Watermilfoil, water Lettuce, Hybrid Cattail



### LAKE SUMMARY:

Birch Lake has nutrient levels well below State standards and water clarity to the bottom of the lake. This is rare for a metropolitan waterbody. Birch Lake has an abundant vegetative community which helps to maintain its high water quality. Due to its close proximity to Cty 96 and 35W, it has a higher risk for chloride (road salt) accumulation. The Birch Lake Improvement District (BLID) is partnering with VLAWMO to conduct special chloride sampling to closely monitor lake chloride levels.

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### Trophic State Index (TSI):

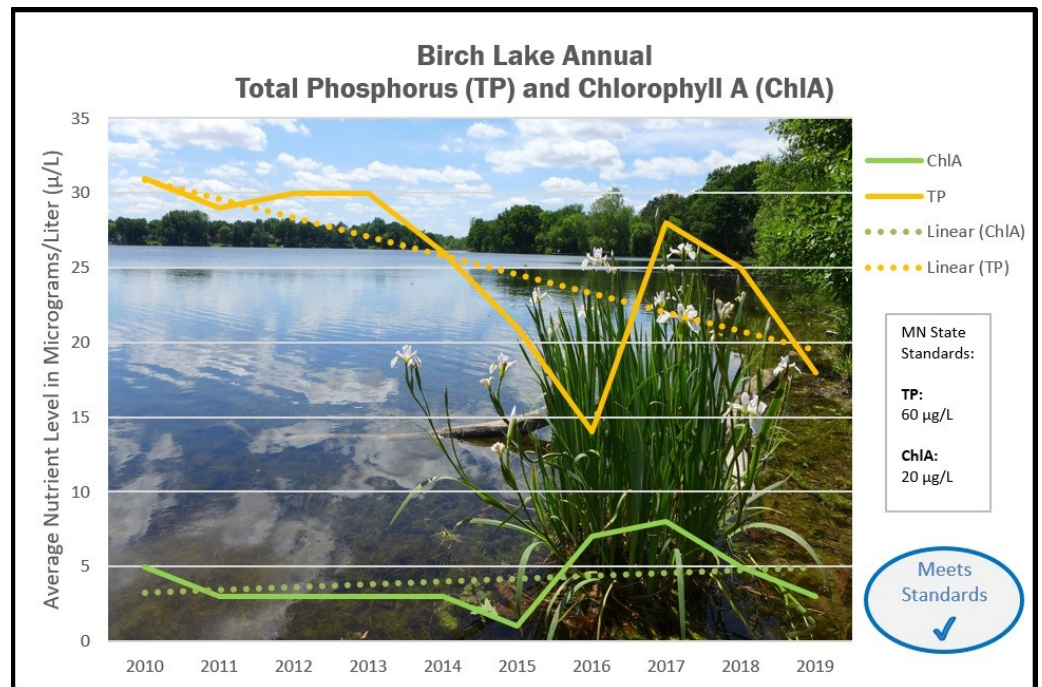
A TSI rating is an additional calculation based on the lake data averages. These values are used in water management to compare lakes using a consistent scale.

Birch Lake	2019	Clear		Moderately Clear		Green		Very Green	
		Oligotrophic		Mesotrophic		Eutrophic		Hypereutrophic	
		20	30	40	50	60	70	80	
Trophic State Index (TSI): Overall									
TSI Transparency: Secchi Disk									
TSI Chlorophyll A: ChlA									
TSI Total Phosphorus: TP									



## NUTRIENT SUMMARY:

Levels of phosphorus (TP) and chlorophyll-a (ChlA) are well below state standards, which is a rare occurrence for such an urbanized water body. TP and ChlA have had a slight down trend in the last 16 years. The financial support and volunteer time from the BLID plays a large role in maintaining the



## PICTURE POST:

A picture post was installed at the Birch Lake north shoreline in 2019. A collaborative effort between VLAWMO and the Birch Lake Improvement District (BLID), the post is a tool for phenology monitoring on the shoreline. Phenology, the study of environmental changes over time, helps lake residents and managers keep a record of environmental conditions instead of gradual changes getting lost and unnoticed over time. Volunteers who participate take photos in a 360° panorama to document shoreline changes, ice in/out, algae blooms, aquatic vegetation, storm damage, and other things that may turn up on in the photos. Visit [vlawmo.org/get-involved](http://vlawmo.org/get-involved) to learn more and add to this valuable data collection.

## PROJECT SUCCESS:

From 2009-2020, Birch Lake has received 1 large (public property) shoreline restoration, 7 residential shoreline restorations, and 1 raingarden. Each project was partially funded by the VLAWMO's cost-share program. The large restoration on the North side of the lake was completed in 2012, spanning 850 feet of shoreline. It included the installation of hundreds of native plants, an access path with large stones for fishing platforms, and a bench for viewing. A partnership between the City of White Bear Lake, the Birch Lake Improvement District, and VLAWMO provides funds and for annual maintenance and monitoring.



Visit [VLAWMO.org](http://VLAWMO.org) under the "waterbodies" page for a complete list of Birch Lake reports and studies.