

Surface Water Quality Update

Summer 2018

Tracking Lake Health

Eight Burnsville lakes are monitored through a volunteer program called the *Citizen-Assisted Monitoring Program (CAMP)*, which is managed by the Metropolitan Council. From April through October, volunteers visit their lake every two weeks to measure water clarity, record temperature, and collect samples for algae and nutrient testing.

Measuring lake clarity indicates how deep sunlight reaches into the water. Less light means less photosynthesis by underwater plants, which means less oxygen for fish and other aquatic animals.

Density of microscopic plankton algae influences lake clarity. In turn, nutrient levels in the water, especially phosphorus, determines plankton algae density.

The clarity data from CAMP volunteers is summarized in the table to the right. The three-year

clarity averages show that most monitored lakes in Burnsville are at or near their goals. These results along with other lake data guide the City's decisions about surface water quality programs and projects.

To learn more about the status of Burnsville lakes and the data that is collected, visit the Natural Resources webpage at www.burnsville.org.

For more CAMP lake data visit the water quality management section of www.metrocouncil.org.



Disk used to measure water clarity

Burnsville Lake Clarity Report Card (depths shown in meters and feet)						
LAKE		2015	2016	2017	3-YR AVG.	GOAL
Alimagnet*	meters	0.8	0.7	0.7	0.7	1.3
	feet	2.6	2.3	2.3	2.4	4.3
Crystal	meters	2.2	2.2	2.3	2.2	2.1
	feet	7.2	7.2	7.5	7.3	6.9
Earley	meters	1.8	1.7	1.4	1.6	1.7
	feet	5.9	5.6	4.6	5.4	5.6
Keller*	meters	0.7	1.0	0.9	0.9	1.8
	feet	2.3	3.3	3.0	2.8	5.9
Lac Lavon	meters	4.2	4.4	4.4	4.3	3.6
	feet	13.8	14.4	14.4	14.2	11.8
Sunset Pond	meters	1.4	1.8	2.4	1.9	1.7
	feet	4.6	5.9	7.9	6.1	5.6
South Twin	meters	1.8	1.9	2.2	2.0	1.4
	feet	5.9	6.2	7.2	6.5	4.6
Wood Pond	meters	2.5	1.8	1.3	1.9	1.7
	feet	8.2	5.9	4.3	6.1	5.6

* On the 2018 Minnesota Impaired Waters List for aquatic recreation



Lake visitor checks boat for aquatic hitchhikers

Program Highlights

The water quality fee on water bills supports surface water quality monitoring and improvement projects such as storm pond cleanout and removal of invasive plants in lakes.

Alimagnet Storm Pond Enhancement

One of Lake Alimagnet's stormponds recently got an upgrade. Installed in late 2017, an iron-enhanced sand filter system will improve the pond's ability to capture phosphorus from stormwater runoff before it enters Lake Alimagnet. Thanks to the new system, the Burnsville area's phosphorus load into the lake will be reduced by about 30%. Less phosphorus means less algae growth and better lake health.

Increased Watercraft Inspections at Crystal Lake

Boat inspections help prevent the spread of aquatic invasive species such as Zebra Mussels. During the 2018 boating season, an aquatic invasive species grant from Dakota County is helping fund Crystal Lake watercraft inspections through a private company. These inspections allow scheduling during the boat launch's busiest times and supplement inspections done by the Minnesota DNR.

Lake Success Story

The Minnesota Pollution Control Agency de-listed Crystal Lake from the State's 2018 Impaired Waters List. Crystal was added to the list in 2002 due to high phosphorus levels. Since then, strategies such as rain garden installation and invasive plant removal have reduced phosphorus levels and improved the lake's water quality.