

Surface Water Quality Update

2017

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. During the open water season, volunteers go out on their lake every two weeks to measure water clarity and collect samples for algae and nutrient testing.

Lake clarity is important because it indicates how deep sunlight can reach into the water. Less light means less photosynthesis by aquatic plants, which means less oxygen for fish and other aquatic animals. Clarity is influenced by levels of microscopic plankton algae in

the water. The amount of nutrients in the water, especially phosphorus, determines algae growth.

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.

Burnsville Lake Clarity Report Card (depth measured in feet)					
LAKE	2014	2015	2016	3-YR AVG.	GOAL
Alimagnet*	3.0	2.6	2.3	2.6	4.3
Crystal*	7.5	7.2	7.2	7.3	6.9
Earley	4.6	5.9	5.6	5.4	5.6
Keller*	2.6	2.3	3.3	2.7	5.9
Lac Lavon	13.1	13.8	14.4	13.8	11.8
Sunset Pond	7.2	4.6	5.9	5.9	5.6
South Twin	6.9	5.9	6.2	6.3	4.6
Wood Pond	4.3	8.2	5.9	6.1	5.6

*Considered "impaired" by the Minnesota Pollution Control Agency



Detention vault during construction



Water Quality Fees: Hard at Work

The water quality fee on water bills helps support surface water quality improvement projects, such as stormwater system maintenance, storm pond cleanout and removal of invasive aquatic plants in lakes.

Water Quality Improvement Project for Keller Lake

In 2017, with assistance from a Minnesota Clean Water Fund grant, the City installed an underground system to improve water quality in Keller Lake. Stormwater runoff from a 151 acre that previously flowed untreated into the lake is now directed into the new system, which captures pollutants that harm water quality.

The first part of the system, a detention vault, retains runoff and allows pollutants to settle out to the bottom, leaving the water cleaner than before. The second part, an infiltration field, allows water to soak into the ground. There, it is filtered by the soil as it works its way down to become part of the groundwater supply.

Redirecting runoff into the underground system will reduce the amount of phosphorus going into Keller Lake by nearly 80 pounds. Reduction of this pollutant will enhance wildlife habitat and improve lake aesthetics and recreation opportunities. And because it's buried underground, the new system located within Crystal Beach Park has no impact on public space in the park.