

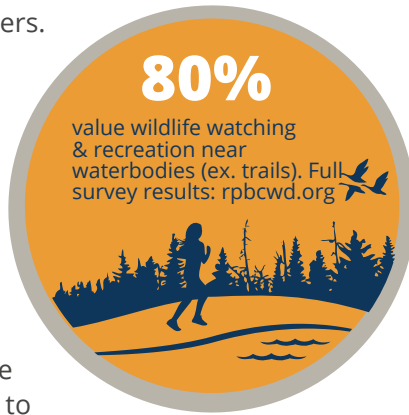
What's happening

UPDATING THE WATERSHED MANAGEMENT PLAN

The plan guides district actions for a decade, and is currently being updated.

In 2016, the district embarked on a special outreach campaign to engage the community in updating the 10-Year Management Plan. This included public meetings, a survey, and tabling at local events. Over 500 residents shared their concerns about local waters.

We gained insight into how residents use, and value water resources. This input helped frame the creation of the new plan's goals and strategies. Once completed, the plan will guide district actions over the next decade. The community can continue to engage with the district in this process in 2017. Join our email newsletter list to stay up to date! Subscribe at: rpbcwd.org



WILD RICE ON SILVER LAKE

Wild rice has been spotted on Silver Lake! Wild rice is uncommon in urban lakes. Northern wild rice is an aquatic grass native to the Great Lakes region, and usually found in Northern and Central Minnesota. It grows in shallow lakes, wetlands, and along streams in less than three feet of water. Wild rice, Minnesota's official state grain, is an important plant within the state. Not only is it an attractive source of food for migrating waterfowl, it is important agriculturally. Rice is a valuable crop culturally and economically. Wild rice needs clean water to flourish, and protecting Silver Lake will help promote this native Minnesota plant.



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2016

RILEY PURGATORY BLUFF CREEK WATERSHED DISTRICT

Located in Shorewood, Silver Lake sits at the edge of the watershed district. It is the only lake in the district that has wild rice, a rare plant to find in metro area lakes!

WATERSHED BOUNDARIES



CHARACTERISTICS

Size	71 acres
Volume	190 acre-ft
Average depth	5 ft
Max depth	14 ft
Watershed size	361 acres
MPCA lake classification	Shallow
Impairment listing	Not Listed
Trophic status	Hypereutrophic
Common fish	Unknown
Invasive species	Curlyleaf Pondweed, Purple Loosestrife

Dive deeper

Interested in learning more? Explore the following reports on our website.

Aquatic plants

Blue Water Science. 2014. Aquatic plant surveys for Silver Lake. Eden Prairie, MN.

Watershed study

BARR Engineering. 2016. Purgatory Creek Watershed Use Attainability Analysis.

Stormwater ponds

RPBCWD. 2013. Stormwater pond project.

Paleolimnology

BRamstack Hobbs J. M. and M. B. Edlund. 2015. Paleolimnological analysis of Silver Lake, Hennepin County, Minnesota. St. Croix Watershed Research Station.

Contact us

and find out how you can get involved

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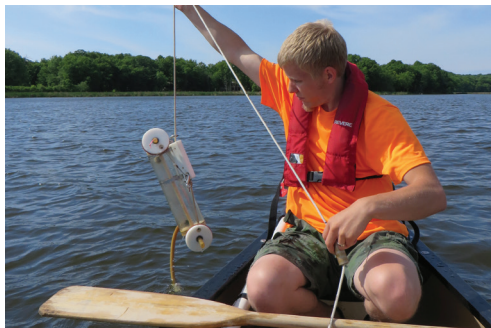


How healthy is Silver Lake?

Silver Lake water quality has been monitored since 1996. Since that time, it has consistently failed to meet the clean water standards set by the Minnesota Pollution Control Agency (MPCA). In recent years, water quality has improved, but still does not meet standards.

During the growing season (June - September), district staff visit Silver Lake every other week to collect water samples and take measurements. The water samples are sent to a lab where they are tested for several compounds including total phosphorous (TP) and chlorophyll a (Chl-a). Staff also measure how clear the water is using a disk that is lowered into the water until it can no longer be seen. All three of these parameters help indicate whether the water is clean. Find out more about each on the next page.

Silver is classified as a "Shallow Lake", which means that it is generally less than 15 feet deep and light can reach the bottom in most of the lake. To be considered healthy by the MPCA, shallow lakes need to be clear enough to see one meter down, and have low TP and Chl-a levels. These shallow lake standards are listed in the summary table.



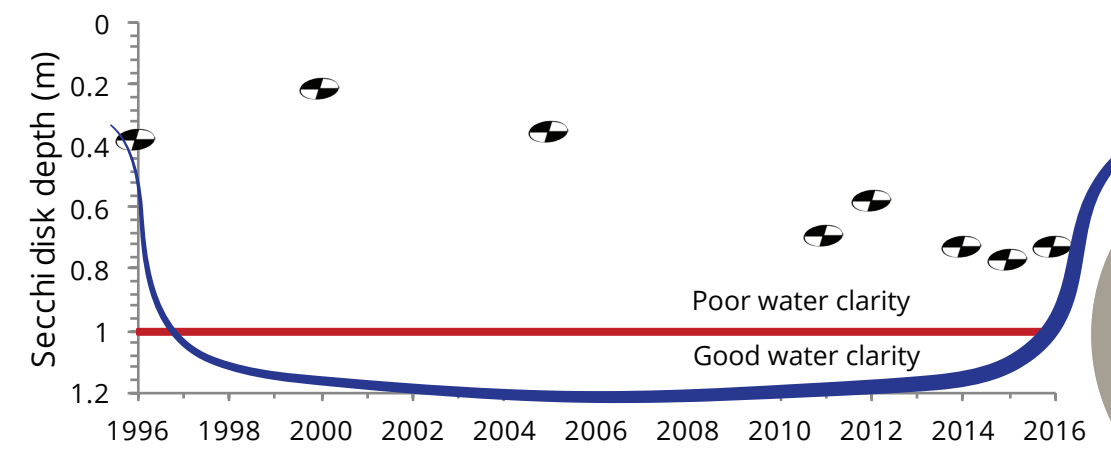
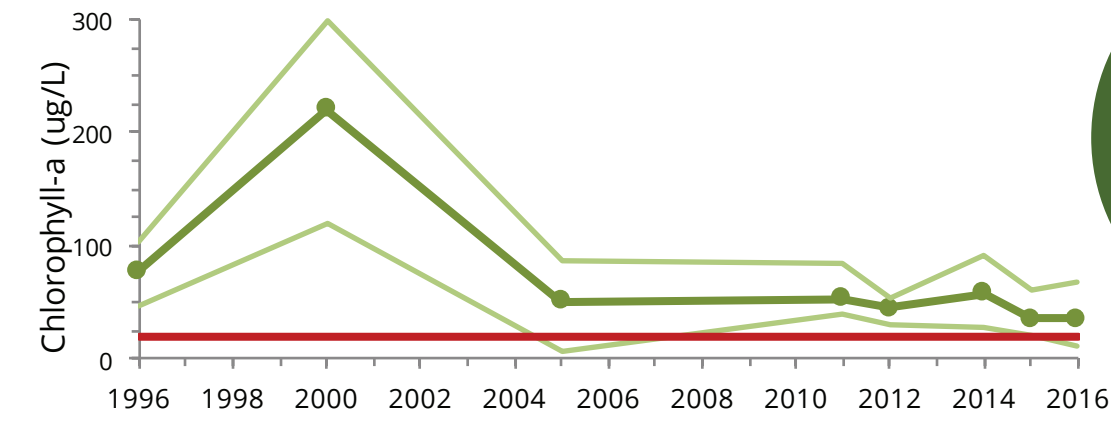
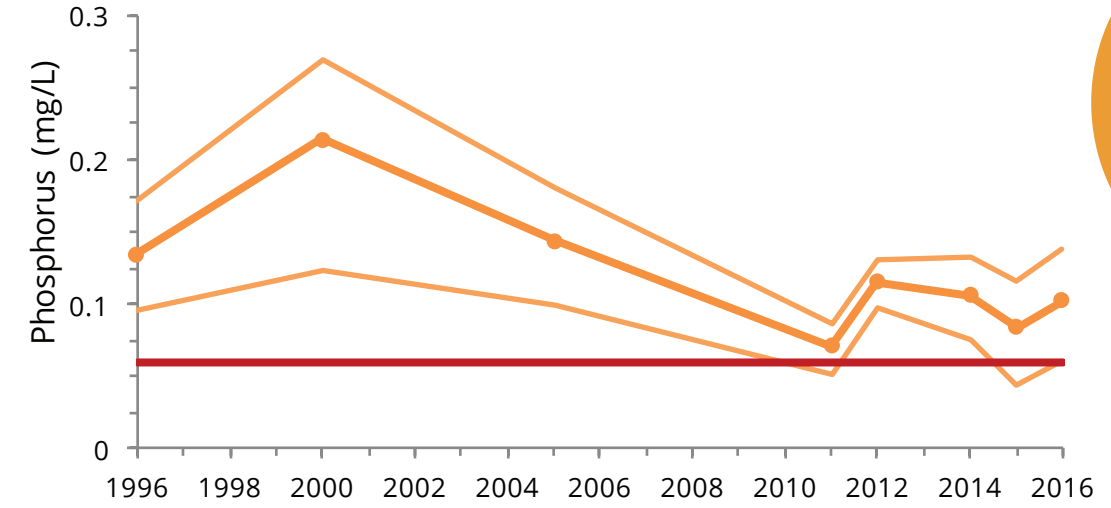
A staff member prepares to collect a water sample using a Van Dorn sampler.



An egret hunts along the shores of Silver Lake.

Water quality graphs 1996 - 2016

Points are growing season (Jun-Sep) averages. Thin lines are the min and max values for each year.



Phosphorus is a nutrient that plants and algae need for growth. It is often measured as total phosphorous (TP). Too much phosphorous can cause algae blooms.

Chlorophyll a is the main pigment in algae, so measuring chl-a can tell us how much algae there is. Too much chl-a means that there are too many nutrients in the water.

Water clarity is measured using a **Secchi Disk**, a black and white disk the size of a dinner plate. It is lowered into the water, and the depth at which it is no longer visible is recorded.



Rainwater runoff, the water that flows across yards, parking lots, and streets into stormdrains, is one of the main causes of pollution in urban areas. You can take simple actions to help protect Silver Lake.

- Keep the curb clean**
Sweep up leaves, grass clippings and fertilizer from driveways and streets.
- Water with care**
Grass requires 1-inch of water per week: about one hour of sprinkling per week if it has not rained.
- Salt smart**
The salt we use to melt ice can pollute our lakes and creeks. Use salt sparingly and always shovel first.
- Reuse the rain**
Collect and reuse rainwater with a rain barrel.
- Build a raingarden**
Raingardens soak up water and filter out pollution. Visit our website for help.

Summary table

	MPCA standard	1996 - 2015			2016		
		max	min	average	max	min	average
TP	<0.06 mg/l	0.27	0.05	0.12	0.14	0.061	0.102
Chl-a	<20 ug/l	300	8	74.6	67.6	11.6	35.6
Secchi	>1 m	1	0.2	0.6	1.1	0.7	0.5

