

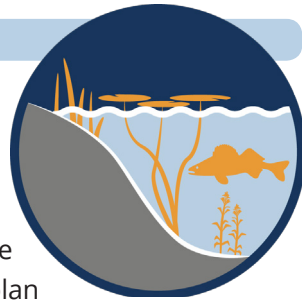
What's happening

Monitoring carp

In 2014, University of Minnesota researchers completed a management plan for invasive carp in the Riley Creek chain of lakes. The plan includes monitoring to estimate the number of carp over time. You may have seen district staff out on Ann this summer in a noisy boat and holding long nets. The boat is an electro-fishing boat that shocks the water to



stun fish. The nets are used to scoop up carp so they can be measured. These measurements are put into an equation to calculate the number of carp in the lake. With these data, the district can then decide whether carp need to be caught and removed from the lake.



Help prevent the spread of aquatic invasive species

Aquatic invasive species (AIS) are a serious concern. Both managing invasives, and preventing their spread are important strategies to keep our waters healthy. The district uses several tools to help in this work including education programs for youth and adults, early detection monitoring aided by volunteers, boat launch inspectors, fish and plant surveys, and lake treatment for invasive plants.

You can help too!

Inspect your boat
Clean, drain, dispose
Pull the boat plug

Become a volunteer monitor

Contact us for more information



Lake Ann 2015

Riley Purgatory Bluff Creek Watershed District



Quick facts

Size	119 acres
Volume	2005 acre-ft
Average depth	16.8 ft
Maximum depth	40 ft
Watershed size	250 acres
Direct land draining	105 acres
MPCA lake classification	Deep
Common fish	
Bluegill, White Sucker, Black Crappie, Yellow Perch	
Invasive Species	
Curlyleaf pondweed, Eurasian watermilfoil, Common Carp	
Trophic status	Impairment
Mesotrophic	Mercury

Located in Chanhassen northwest of Highway 5 and Powers Blvd, Lake Ann is one of the deepest lakes in the watershed district. It is surrounded by open hills and trees, with very little development on its shores. Lake Ann Park is a popular place for a swim. If planning a trip to the lake, keep in mind that only boats with electric motors and carry-on craft are permitted.



Dive deeper

Interested in learning more? Find the reports below on our website. Fish, plant, and sediment studies are just some of the research the district and its partners conduct. Can't find what you are looking for? Feel welcome to call or write.

Aquatic plants

JaKa, J. and Newman, R. 2014. Aquatic Plant Community of Lakes Ann, Lotus, Lucy, Mitchell, Susan, Riley and Staring within the Riley Purgatory Bluff Creek Watershed: Final Report 2009 – 2014. University of Minnesota.

Watershed study

BARR Engineering. 2013. Lake Lucy and Lake Ann: Use Attainability Analysis.

Stormwater ponds

RPBCWD. 2013. Stormwater pond project.

Carp management

Bajer P.G., Headrick, M., Miller B. D. and Sorensen P. W. 2014. Development and implementation of a sustainable strategy to control common carp in Riley Creek Chain of Lakes. University of Minnesota.

Contact us

and find out how you can get involved

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FIND US ON

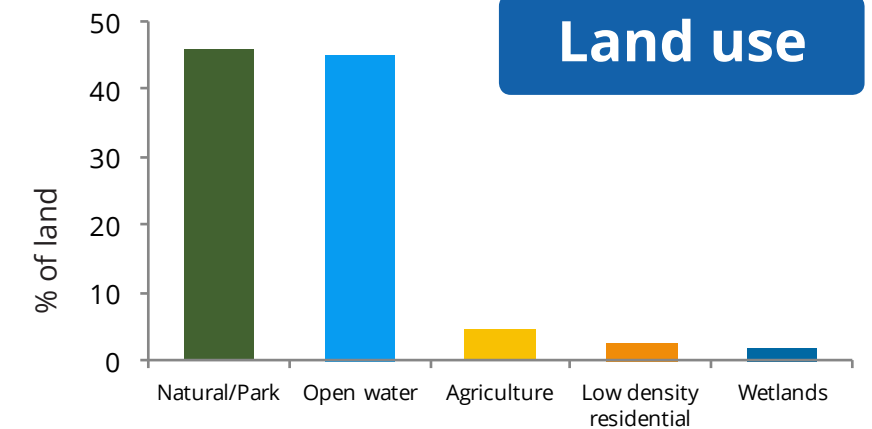
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Did you know?

Water entering Ann stays in the lake for 11 years before it flows out Riley Creek

Lakes Ann and Lucy are the headwaters to Riley Creek, which eventually flows into the Minnesota River

Existing land use is mostly natural spaces but may be turned into homes in the future



The land area that drains into Lake Ann is small and mostly open parks and natural spaces.



How healthy is Lake Ann?

For the past 40 years, Lake Ann has consistently met the clean water standards set by the Minnesota Pollution Control Agency (MPCA). The graphs on the next page show the trends over time. The red line on each graph marks the MPCA standard. The goal for each graph is for the average values (the dots) to be below the red line.

During the growing season (May - September), district staff visit Lake Ann 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.

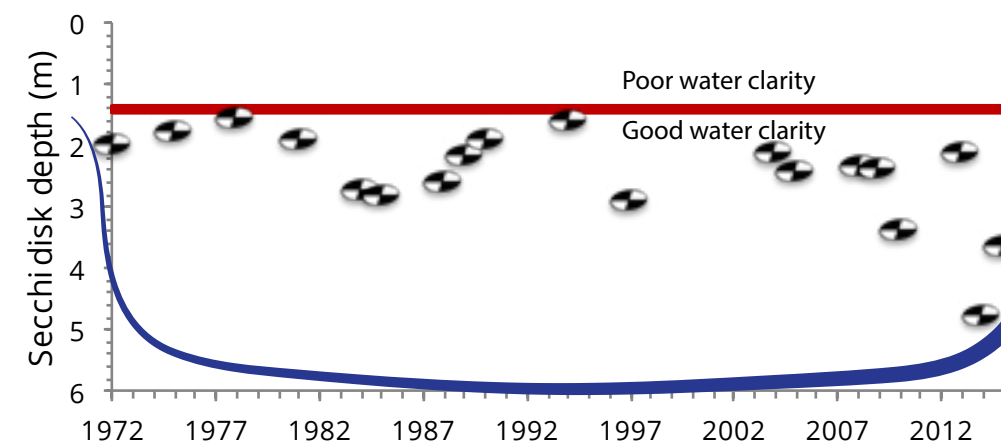
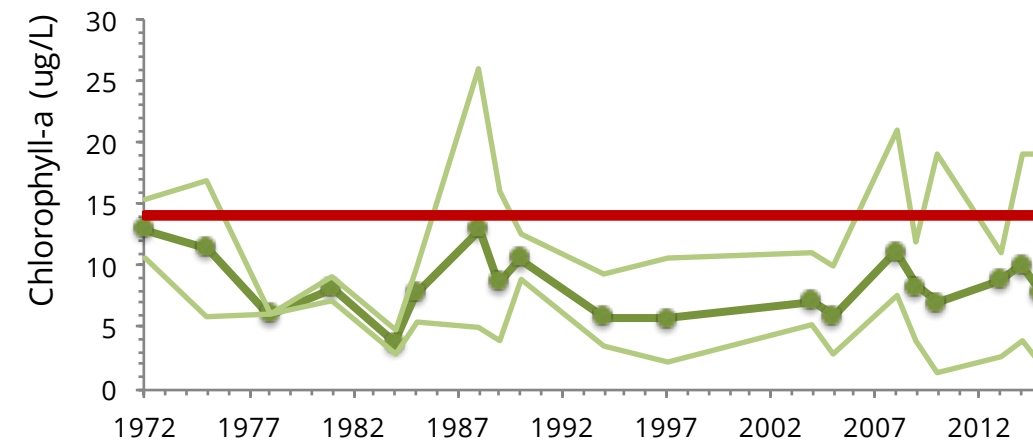
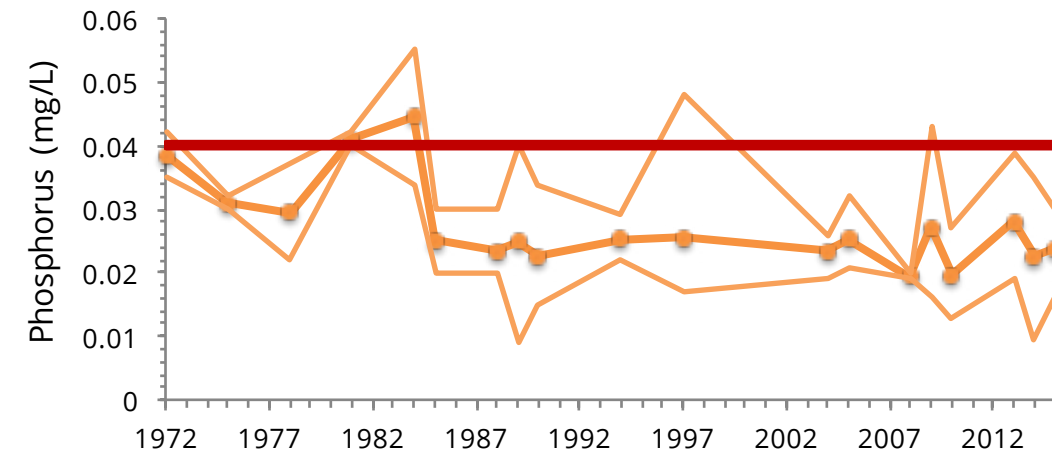
Ann is classified as a "Deep Lake", which means that it is over 15 feet deep and light can not reach the bottom in most of the lake. To be considered healthy by the MPCA, deep lakes need to be clear enough to see 1.4 meters down, and have very low TP and Chl-a levels. These deep lake standards are listed in the summary table.



[Above] Staff collect data on Lake Ann.
[Left] Bottles with water samples being prepared.
[Below] A swimmer enjoys Lake Ann.

Water quality graphs 1972 - 2015

Points are growing season (May-Sep) averages. Thin lines are the minimum and maximum 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 Lake Ann.

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	Since 1972			2015		
		max	min	average	max	min	average
TP	<0.04 mg/l	0.055	0.009	0.026	0.03	0.016	0.024
Chl-a	<14 ug/l	26	1.3	8.1	19	4	7.8
Secchi	>1.4 m	6.8	1	2.5	7.2	1.9	3.7