

'Our water is our diamond'



From left: White water lilies bloom in South Center Lake at Loren’s Park in Center City. A boater crosses South Center Lake, part of the 20-lake Chisago Lakes Chain of Lakes. Where it dead-ends at South Lindstrom Lake in Lindstrom, Linden Street was made narrower. Chisago Soil & Water Conservation District work accomplished through Clean Water Fund grants has included both urban and rural projects. **Photo Credits:** Ann Wessel, BWSR

Two lakes in the Chisago Lakes Chain of Lakes move toward removal from the Impaired Waters List as urban, rural conservation practices improve water quality



“Whether they live there or it’s a recreational cabin or getaway, they care about the lake the same.

— Casey Thiel, Chisago SWCD

CENTER CITY — On a hot summer weekday, boisterous swimmers splashed near a private dock as the occasional boater crossed South Center Lake. On the opposite shore, a couple of anglers fished from Loren’s Park.

There’s a good chance none of them knew South Center Lake is on course to come off the Minnesota Pollution Control Agency’s (MPCA) impaired waters list as soon as 2022.

What residents and visitors do know is that water quality has improved.

From 2013 through 2018, phosphorus levels in both South Center and North Center lakes consistently surpassed water-quality standards for aquatic recreation. (Phosphorus feeds the algae that can turn lakes green.) Average Secchi disk readings, which measure water clarity, hovered at the threshold. Average chlorophyll-a levels, which indicate algal growth, remained high.

“Things have definitely gotten better, and they’re getting close to the point where we can delist specifically these two lakes,” said Lee Engel, MPCA water quality monitoring supervisor. “You can see that concentrations are

trending in the right direction.”

The 2018 results arrived in late January.

For the first time since the listing, South Center Lake came in under the threshold for chlorophyll-a. The 2018 average reading was 8.6 micrograms per liter. The threshold is 14 micrograms per liter. South Center Lake’s 2018 average readings for all three indicators were the best they’ve been since being listed.

Nine lakes in the 20-lake Chisago Lakes Chain of Lakes were listed as impaired in 2008.

Ten years and more than \$2.2 million in water-quality improvement projects later, the Chisago Soil & Water Conservation District’s (SWCD) work with landowners and cities appears to be paying off.

“People are seeing the lakes improve. I hear that a lot from people,” said Casey Thiel, Chisago SWCD water resource specialist. “The fishing’s better. There’s less invasive plants. There’s more water. Water levels are a big issue. And then, ‘Hey, we haven’t seen that algae bloom that we usually get.’”

SWCD staff credits the cumulative effect

At a Glance

IMPAIRED: The MPCA added these Chisago Lakes Chain of Lakes to the impaired waters list in 2008: Little, Linn, Ogren, Pioneer, North Center, South Center, Wallmark, School and Emily

WATERSHED: 36,800 acres

CONNECTED: Sunrise River, St. Croix River, Mississippi River

DETAILS: Full story on blog: <https://medium.com/@MnBWSR/our-water-is-our-diamond-9a459745135a>



In Lindstrom, new or rebuilt city streets are made narrower when possible — a strategy that reduces stormwater runoff and cuts city maintenance costs. Linden Street was made narrower where it dead-ends at South Lindstrom Lake. It's flanked by a stormwater treatment system with rain gardens.

of water-quality projects large and small.

“What it shows is that the actions taken have definitely had an effect on water quality. The reality is that these things don’t just change with a flip of a switch. They take some time to switch back to meeting standards,” Engel said.

About \$1.7 million in Clean Water Funds — including a Targeted Watershed Demonstration grant that wraps up in early 2020 — has helped to pay for the projects. To date, the SWCD has leveraged \$380,000 from the Chisago Lakes Lake Improvement District (LID), \$116,700 from the Natural Resources Conservation Service’s (NRCS) Mississippi River Basin Initiative (MRBI), and \$50,000 from the St. Croix River Association.

Conservation projects gained momentum as SWCD and NRCS staff earned landowners’ trust and as word spread.

BWSR awarded the Chisago SWCD two more Clean Water Fund grants related to Chisago Lakes Chain of Lakes work in December. A \$250,000 grant will fund additional best management practices in the chain. A \$100,000 grant will fund a

Project Tally

- 88:** rain gardens
- 21:** water and sediment control basins
- 13:** lined waterways
- 10:** storm drain inlet protections
- 9:** vegetated swales
- 8:** shoreline plantings, grassed waterways
- 7:** gully stabilizations
- 4:** iron-enhanced sand filters
- 3:** stormwater pond retrofits
- 2:** diversions
- 1:** livestock access control, wetland restoration, enhanced street sweeping, long-term hay planting

gully stabilization affecting Green Lake in Chisago City.

Work accomplished through the 2015 targeted watershed grant was calculated to reduce at least 690 pounds of total phosphorus annually — 11 percent of the Total Maximum Daily Load (TMDL).

“Our water is our diamond,” said Frankie Dusenka, 62, of Chisago City-based Frankie’s Live Bait & Marine, on a late December afternoon as he was heading out to check on the minnows.

“That’s the catalyst that makes everything thrive in this

area. ... To keep the diamond shining, you’ve got to take care of it. It all starts with water quality.”

Dusenka, whose business bills itself as the No. 1 Ranger boat dealer in the world, has hosted carp tournaments to thin lakes’ populations of the bottom-churning invasive species.

“I believe it’s the most important thing here next to the schools — lakes being first, schools being second,” Dusenka said. “It’s nice having a lake in our backyard.”

In Lindstrom, a panorama of South Lindstrom Lake unfolds at the end of Linden Street.

The street is narrower to reduce runoff and cut city maintenance costs. The Linden Street project was the first Chisago Lakes Chain of Lakes project funded with the SWCD’s share of \$1 million in Clean Water Funds available through a direct appropriation to the Anoka Conservation District.

Most of Lindstrom’s 3.5-square miles lie within the shoreland district.

“That’s our market value, that’s our quality of life,” said Lindstrom City Administrator John Olinger.

When the lakes were put on the impaired waters list, Olinger said the council made cleaning up the lakes a priority. The city put a minimum impact design ordinance in place, brought septic systems off the lake and onto the city sewer system, and focused on filtering the water before it entered the lakes.

Chisago Lakes LID board member Jill Behnke, 60, was born in the Chisago Lakes Chain of Lakes area, where she’s lived for all but 15 years. Recently, Behnke said she hasn’t seen as much algae.

“Everything we put in this lake makes a difference because it all ends up in the Sunrise River, and from the Sunrise River it ends up in the St. Croix River. So for us to be able to start seeing improvement is a great accomplishment, and it needs to be continued,” Behnke said.

A 2014 Clean Water Fund grant plus the NRCS funding allowed the SWCD to expand its reach to agricultural producers. An MRBI fund extension will allow more cropland conservation work.

“In general, we would like to see the successes in the upper reaches of the watershed just continue throughout the entire watershed,” Thiel said.