



# Circle Lake Improvement District

## 2023 Annual Report

### 2023 Projects

#### **2023 AIS (Aquatic Invasive Species) Management**

##### Shoreline

This year, we had 54 property owners sign up for shoreline weed harvesting.

The total shoreline mechanical harvest was 2789 feet.

The cost was \$7 per foot plus a \$35 permit fee per homeowner and was paid for by the property owner requesting the service. This was the same cost as 2022.

##### Offshore

The DNR approved 41 acres of mechanical harvesting and 29.2 acres of herbicide treatment.

The cost for the mechanical harvesting was \$600/acre and was completed by J&N Weed Harvesting on 06/06/2023.

The cost for the herbicide treatment was \$417/acre and was completed by Lake Management on 05/16/2023

The result of both practices was excellent.

#### Grants for AIS (AIS Aquatic Invasive Species)

- The CLID applied for and was granted an (AIS) control cost-share grant for \$5,000.00 from Rice County Environmental Services.
- The DNR also granted us \$20,000 to be used over two years to assist with AIS management projects in 2022 and 2023. The balance of \$8000 was spent in 2023.

- A donation from the Circle Lake Association (CLA) was received in the amount of \$12,500, which included \$500 from Tri-Lakes Sportsmen Club.

## **Lake Restoration Plan**

Based on the conclusions from a 2021 Water Quality Report prepared by Chad Wittkop and Cassandra Markfort from the University of Minnesota Mankato in 2021 and a Watershed Assessment and Internal Loading Analysis conducted by ISG out of Mankato in 2022, it was determined that internal nutrient loading was the most significant contributor to Circle Lake's water quality impairment. Based on that, the Board began a search for a company that does lake restoration work. We found EverBlue Lakes, a company based in Michigan and doing lake restoration projects throughout the country. We received a bid from them for the cost of doing the necessary work to determine if their lake restoration methods would work on Circle Lake. As the cost of this work would exceed \$5000 a special meeting of the LID members was held in March 2023 to get approval to engage EverBlue Lake to do this work. This assessment project was approved by the members at that meeting.

Following this March meeting, EverBlue Lakes was engaged to review all of the data the LID has on the lake and make two on-site visits to the lake to gather any further data that was required for them to determine if EverBlue Lake's techniques would work in Circle Lake. If it was determined that EverBlue Lakes techniques could work on Circle Lake, then design a Lake Restoration Plan and give us a proposal for its implementation and cost.

### **EverBlue Lakes Conclusion:**

- Based on historical and current data collected by EverBlue Lakes, Circle Lake is Hypereutrophic – HIGHLY IMPARIED for recreational use.
- Phosphorus levels are more than 10 times higher than the minimum desired standard for reducing the risk of harmful algal blooms.
- Total Nitrogen is more than 3 times higher than the minimum acceptable standard.
- The lake is severely impaired for dissolved oxygen, is at moderate to high risk of a Summer Fish Kill, and has experienced a Winter kill.
- There is a significant amount of organic “muck” at the bottom of the lake.
- By all reasonable standards, Circle Lake was not swimmable and posed a respiratory irritation risk for boating from the time of the first sampling on 6/20 through the second sample date of 7/24 and beyond in 2023.

## **EverBlue Lake Restoration Plan**

- Lake Aeration would keep the oxygen level of the lake at a healthy level and support aerobic decomposition of the organic “muck” at the bottom of the lake.
- Introducing a nutrient-binding agent (Metallic) into the lake to make the phosphorus unavailable.
- Introducing a biological treatment into the lake to accelerate the decomposition of the organic “muck” at the bottom of the lake.

This project's cost and five-year budget is between 4.4 and 4.5 million dollars. The Board is currently looking for funding.

## **2023 Lake monitoring/data collection/survey**

The CLID conducted lake water sampling throughout the season to augment the samples taken by EverBlue Lakes. Also, samples were taken during the spring snow melt and after an early season 2+ inch rain event.

Monitor stations were put in place where Ditch 32 passes under Ecco Ave and where Wolf Creek crosses under 130th Street. These monitors continually collected data on air temperature and water level.

Secci Disk readings are collected by a LID member.

Dam Gauge readings are collected by a LID member.

## **Buoys were placed in the lake to identify hazards.**

The District added two more buoys for a total of seven buoys in the lake, identifying where there are hazards to navigation this year. (Rocks that are close to the surface and very shallow water). We want to thank the Rice County Sheriff's office for handling the permitting, placement in the spring, and removal in the fall of all our buoys. Thank you.

## **Community Engagement**

- The CLID made a presentation at the 2023 Future of Southern Minnesota Lakes Conference sponsored by ISG. This presentation focused on our experience getting the CLID created.
- The CLID also made a presentation to the Cannon River Watershed Joint Powers Board (CRWJPB) to inform them of our Lake Restoration Plan.
- The CLID has a plan to support the Rice County SWCD with their work to support the establishment of Native Plantings on properties around the lake.
- The lake suffered a significant fish kill due to low oxygen levels in the lake over the winter. The CLID supported the efforts that were required of the lake community to clean up the dead fish that washed up on shore around the lake by providing a dumpster for their disposal.

# Circle Lake Improvement District Budget for 2024

<b>Estimated Income</b>		
<b>Estimated Carryover from 2023</b>		\$20,000
<b>Membership Special Assessment</b>	\$300/parcel assessed	\$50,000
<b>Grant</b>	DNR	\$10,000
<b>Grant</b>	Rice County	\$5,000
<b>Grant</b>	Other	\$10,000
<b>Income Total</b>		\$95,000
<b>Estimated Expenses</b>		
<b>Administrative Expenses</b>	Printing, Postage, Website, Office Items	\$3,000
<b>Contract Services</b>	Consultants	\$3,000
<b>Rice County</b>	Admin Fees	\$510
<b>MCIT</b>	Liability Insurance	\$1,800
<b>Sub Total</b>		\$8,310
<b>Projects</b>		
	Weed Harvest/Management	\$45,000
	Lake Monitoring	\$15,000
	Ad hoc watershed project	\$15,000
<b>Sub Total Projects</b>		\$75,000
<b>Total Expenses</b>		\$83,310
	<b>Working Capital/Cash Reserves</b>	\$11,690

## **RESULTS OF THE ITEMS VOTED ON BY THE MEMBERSHIP AT THE 2023 ANNUAL MEETING**

- 2024 Budget (Approved)
- Invasive Weed Control (cost > \$5000) (Approved)
- Lake Monitoring (cost > \$5000) (Approved)
- Watershed Project (cost > \$5000) (Approved)
- Elected two available seats for District Members to the Board of Directors
- Cheryl Bahnsen (three-year term)
- Stefanie Johnson (two-year term)

All 32 members approved all items on the ballot.

## **POSSIBLE PROJECTS OVER THE NEXT 5 YEARS**

Items on our five-year plan will/might include:

- AIS Invasive Weeds control
- Reducing the nutrient load entering the lake
- Reducing the nutrient load in the lake
- Lowering the sediment load entering the lake
- Controlling the level of the lake
- Carp population control
- Core Sampling
- Native Plant Restoration

We will continue developing relationships with the various organizations and government agencies that work in this area and provide grants for lake improvement/water quality work.

The seven-member CLID Board is a hard-working, dedicated group of individuals who volunteer their time and energy to work on CLID issues. Their talents are wide-ranging. I am incredibly grateful for all they do.

Members, we appreciate your support. Please let us know if you have some free time and would like to get involved.

Sincerely,  
Dean Sunderlin Circle Lake Improvement District - Chair

### **The CLID Board of Directors:**

Dean Sunderlin Chair	Term Ends in 2025
William Houston Vice Chair	Term Ends in 2024
Denise Klokov Secretary	Term Ends in 2024
Cheryl Bahnsen Treasurer	Term Ends in 2026
Carl Bahnsen	Term Ends in 2025
Jeff Jirik	Term ends in 2024
Stefanie Johnson	Term Ends in 2025