

Lake Leader

East Polk SWCD



BLUE- GREEN ALGAE MONITORING

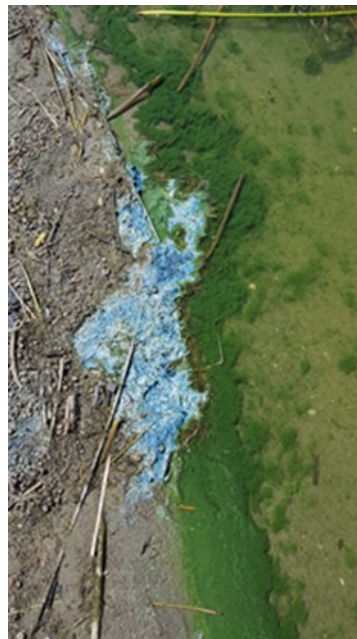
Since the discovery of blue-green algae or algal toxins in lakes and reservoirs during the summer of 2018, regular sampling and monitoring has been conducted to discover algal blooms/toxins and learn more about the conditions that may lead to algal blooms. Red Lake Watershed District (RLWD) staff regularly sampled for algal toxins in Maple Lake (once every two weeks). Maple Lake was chosen as the “sentinel” lake for RLWD algal toxin monitoring because it was location of the highest concentration of algal toxins that the RLWD had previously measured within a lake sample and because of its popularity for aquatic recreation. If measurable concentrations are found in Maple Lake, the RLWD is prepared to sample other shallow eutrophic lakes to find other cases of measurable or high algal toxins. The RLWD uses Abraxis test strip kits to test the water for algal toxins. “Jar tests” are another low-cost tests that can be used by anyone to confirm the presence and relative abundance of blue-green algae.

BLUE-GREEN ALGAE RESULTS

A total of three samples (July 20, August 3, August 19) were collected in 2021 from the Polk County marina on Maple Lake. Algal toxins were not detected in any of the samples.

Available information from the U.S. Environmental Protection Agency and the World Health Organization indicates that the concentrations above 8-10 ppb create a moderate risk during recreational exposure. Measurable concentrations below that level would be classified as a “low risk”. The general advice for dealing with harmful algal blooms is “when in doubt, stay out.” When potentially harmful algal blooms are identified, especially areas where blue-green algae can accumulate, it is best that pets and small children are kept out of the shallow water. Blue-green algae thrive on excess nutrients, heat, and stagnant water.

Please contact the East Polk SWCD staff (218-563-2777), the RLWD (218-681-5800) for lakes within the Clearwater River Watershed, Polk County Environmental Services (218-281-6445), the Minnesota Pollution Control Agency (MPCA) water quality hotline number (651-757-2822), and/or the MPCA algae inbox (algae.mPCA@state.mn.us) about suspected blue-green algae blooms in your lake.



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SPECIAL POINTS OF INTEREST

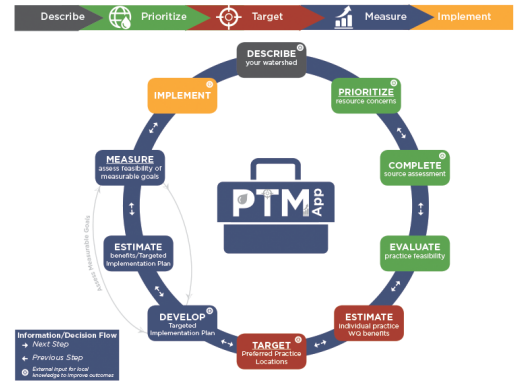
- Learn about the discoveries of Blue Green Algae found on Maple Lake provided by the Red Lake Watershed District.
- One Watershed, One Plan: combining multiple water planning efforts into one effort
- Shoreline Restoration Program: The East Polk SWCD and MN Native Landscape will provide technical assistance and landscaping with available cost-share to restore your shoreline.
- 21 Day Dock Rule– docks, lifts, and rafts must be dried for 21 days before entering a waterbody.
- CD3 Cleaning Station– check out the brand new cleaning station, purchased by the AIS Taskforce to help stop the spread of Aquatic Invasive Species.
- Updated lake Directory—contains new information on current contacts

CLEARWATER RIVER ONE WATERSHED ONE PLAN

The Clearwater River Watershed includes the Clearwater River, Ruffy Brook, Lost River, Hill River, Poplar River, Lower Badger Creek, and their tributaries. Major lakes in the watershed include Clearwater, Maple and Pine Lakes. The counties, soil and water conservation districts, and watershed district in this area began a state-funded planning process in 2021 to prioritize where to work and what to work on in the watershed.

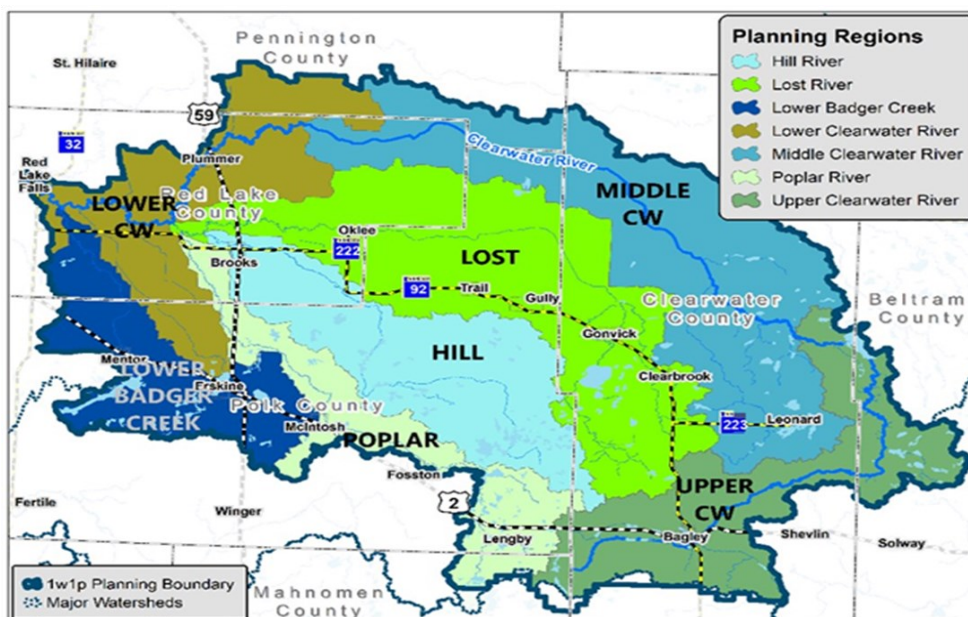
The 1W1P will establish clear implementation timelines, milestones and cost estimates for restoration and protection activities. Combining multiple water planning efforts into one effort will create a more efficient and cooperative plan for water management. Plans will include goals and implementation actions that are prioritized and targeted on a watershed basis with measurable results, instead of a bunch of individual plans that are restricted to political boundaries.

The Clearwater River Watershed One Watershed One Plan effort formally began in June 2021 with Public Open House events held in Brooks and Gonvick. At these meetings, participants learned about the watershed, learned about the planning process, and provided input by discussing potential issues and opportunities for the plan to address. Issues gathered from the public were compiled and compared to priorities from state agencies and existing county water plans, resulting in a watershed issues list. These issues were then prioritized using existing data and local knowledge to determine what the priorities of this plan will be. Priorities include bacteria, phosphorus, and sediment runoff, streambank erosion, soil health, groundwater quality and quantity, wetland protection, and protection of high quality lakes, streams, and forests. Measurable goals, and the actions needed to accomplish goals, are being developed to address those priority issues.



A planning tool called PTMapp (Prioritize, Target, and Measure Application) has been developed for the Clearwater River Watershed. The tool will be used to prioritize locations where projects will provide the greatest benefit within the watershed. The tool uses detailed LIDAR elevation data, along with land use, soil types, and other data, to estimate pollutant runoff and pollutant reductions from projects/practices.

A draft plan will likely be completed in the spring of 2022. The public will then have an opportunity to comment on the draft plan during a 60-day review period. Once the 10-year plan is complete, planning partners will develop a two-year work plan for the first installment of watershed-based implementation funding that has been approved and reserved for the watershed by the Minnesota Board of Water and Soil Resources.



RIP RAP DOESN'T WORK ON ALL SHORELINES

Rip Rap is the most common shoreline erosion practice in East Polk County. Rip Rap has its advantages as it is easy to maintain, it's eco-friendly, and it lasts for a long time. However, as shown in Figure 1 and Figure 2 it has its disadvantages as well. Landowners have contacted The East Polk Soil and Water Conservation District and Minnesota Native Landscape last summer with the same concerns. Rip Rap does a great job at stabilizing the toe of the shoreline, but in some cases, it does not stabilize the soil.

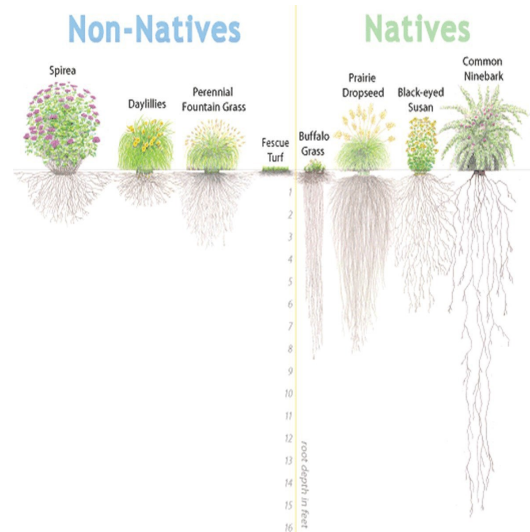
The shoreline in figures 1 and 2 shows that the rip rap undercuts the grass into the soil which is caused by particle erosion. Particle erosion results when the tractive force exerted by the flowing water exceeds the bank materials' ability to resist movement. In addition, if displaced stones are not transported from the eroded area, a mound of displaced rock will develop on the channel bed. This mound has been observed to cause flow concentration along the bank, resulting in further erosion.



Figure 1.



Figure 2.



If you have rip rap on your shoreline and are experiencing particle erosion there is a fix! The best way to stabilize your soil is to plant a native vegetation buffer of at least 10 feet. Native plants have deeper root systems that substantially increase the ability of soil to absorb and retain water. Native grasses and sedges are particularly effective due to their fibrous roots that grab and hold the soil. Non-native plants have shorter root depths to about 3 feet but native plants have root depths that reach up to 16 feet into the soil. Minnesota Native Landscape has a variety of seed mixes that consist of grasses and wildflowers that are designed to stabilize your shoreline. In more critical areas with high impact erosion we install woody vegetation, a mix of shrubs and trees due to their strong root system.

Please visit our website for more information on the Shoreline Restoration Program at: <https://eastpolkswcd.org/shoreline-restoration>.

We Provide Cost Share!

The East Polk SWCD offers up to **50% cost share**. Funding will cover any approved expenses of your shoreline restoration or rain garden project. Proposed projects will receive design plans, and cost estimates prior to installation. The shoreline restoration and rain garden program provide technical assistance to meet your satisfactory needs. Our projects are intended to minimize cost, reduce ecological impact, and guarantee an aesthetically pleasing restoration area for you.

Installation Services

The East Polk SWCD is partnered with Minnesota Native Landscape that will provide native landscaping for your shoreline. Minnesota Native Landscape works with the landowners directly. Their team consists of seasonal biologists, ecologists, and landscapers, who are very passionate about protecting and restoring native landscaping. Working with East Polk SWCD and Minnesota Native Landscape greatly benefits you! All planning and installation will be completed by a team of dedicated professionals, making the process easier on landowners.

To schedule a site visit with the East Polk Soil and Water Conservation District please call our office at (218)- 563-2777 or Email Marea Gryskiewicz at schommer.eastpolk@gmail.com.



SHORELINE RESTORATION AND RAIN GARDEN PROGRAM



2021 LAKE LEVELS

Monthly Lake Level Average	Hill River	Cross	Turtle	Spring	Poplar	Sarah	Union	Maple	Cable	Cameron	Badger
May 2021	1.91	1.44	7.77	2.16	1.03	4.98	7.65	2.35	1.76	2.50	4.99
June 2021	1.75	1.26	7.22	1.53	0.85	4.56	7.40	2.18	1.50	2.23	4.51
July 2021	1.44	0.93	6.90	1.39	0.73	3.94	7.00	1.69	1.01	1.67	4.12
August 2021	0.91	0.52	6.96	1.16	0.49	3.72	6.63	1.18	0.47	1.50	3.68
September 2021	0.94	0.48	6.98	1.34	0.51	4.15	6.63	1.18	0.38	1.56	3.81
October 2021	1.15	0.54	7.03	1.70	0.71	4.10	6.78	1.25	0.40	1.69	4.21

* table numbers are elevation in feet

SOLAR POWERED BOAT CLEANING STATION



The Minnesota Department of Natural Resources reminds lake property owners to check boats and trailers, docks and boat lifts, and all other water-related equipment for invasive species when removing equipment for seasonal storage.

While it's always important to look for invasive species on boats, docks and other equipment, it is especially important at this time of year. Several new Zebra Mussel confirmations in recent years were initially reported by people removing docks, boats and lifts.

"Lake property owners play an important role in detecting invasive species, by carefully examining equipment when taking it out of the water at the end of the season," said Heidi Wolf, DNR invasive species unit supervisor.

Minnesota law requires that docks and lifts remain out of the water for at least 21 days after removal from a waterbody before they can be placed into another body of water. In addition, anyone who transports a

dock or lift from a shoreline property to another location for storage or repairs may need a permit to help prevent the spread of aquatic invasive species.

The DNR recommends these steps for lake property owners:

- Look on the posts, wheels and underwater support bars of docks and lifts, as well as any parts of boats, pontoons and rafts that may have been submerged in water for an extended period.
- Hire DNR-permitted lake service provider businesses to remove boats, docks, lifts and other water-related equipment. They have been trained on Minnesota's aquatic invasive species laws and have experience identifying and removing invasive species.
- Contact an area DNR aquatic invasive species specialist. If an invasive species is discovered in a waterbody that has not already been confirmed in that water.

More information is available at mndnr.gov/AIS.



The Polk County Aquatic Invasive Species (AIS) Task Force made a recent purchase to help protect waterways in Polk County. The Polk County Commissioners authorized the Task Force to use grant funding that was saved in prior years to purchase a CD3 Wayside Solar boat cleaning station from a MN based company CD3 systems. CD3 systems products aim to give the public tools and equipment to combat AIS spread throughout the country.

The MN clean, drain, dry initiative aims to keep boats and watercrafts free of water which ultimately keeps aquatic invasive species where they are. Responsible lake and river users need to take necessary steps to take the time to look over all watercraft equipment when recreating on lakes and rivers. Aquatic hitchhikers continue to spread all throughout MN on boats and watercrafts. The cleaning stations will help lake and river users have the necessary tools to combat aquatic invasive species from hitching rides on watercrafts.

The AIS taskforce knows how important our lakes and rivers are for people recreating in Polk County. They aim to keep our waterways clean and productive for future generation of lakes and river users. We are proud to have a CD3 system in our toolbox to combat AIS spread in Polk County. In the 2022 boating season the CD3 makes its home at East Shore public launch area located on NE side Maple Lake off County Highway 10. This access provides sufficient space to use the unit without hindering people from using public access sites throughout Polk County. Even if you are launching in Maple Lake stop in to test out the new cleaning station, it's free to use! For more information contact Polk County Environmental Services at (218) 281- 5700. — Jacob Snyder, Assistant Environmental Svs. Administrator



EAST POLK AQUATIC INVASIVE SPECIES

UNION LAKE

Curly Leaf Pondweed:

Forms weed mats that shade out of native plants. Have somewhat stiff, wavy leaves with fine toothed edges that are 1/2 inch wide and 2-3 inches long, arranges alternately around the stem. When it dies back in mid-summer, it releases nutrients which cause algal blooms.



Eurasian Watermilfoil:

Forms dense mats that interfere with boating and swimming. Long spaghetti-like stems. Leaves arranged in whorls (circles) of 3-5 around stem. Each leaf has 12-21 leaflet pairs. Northern watermilfoil, a native look-alike, has 7-10 leaflet pairs.



SARAH LAKE

Chinese Mystery Snails:

Chinese mystery snails are small animals with a coiled spiral shell. They grow up to three inches tall and are olive colored. The shell opening is on the right when the shell is pointed up. They have an operculum ("trapdoor") covering the opening, which is missing when the snail is dead and the shell is empty.



SPREAD THE WORD!— If you find out that the lake you are on or near has any other type of aquatic invasive specie in it, let other people know and remind them to be careful not to transport them to another body of water.

2022 LAKE DIRECTORY

East Polk Soil and Water Conservation District

240 Cleveland Ave
McIntosh, MN 56556

District Manager– Rachel Klein-
klein.eastpolk@gmail.com

District Technician– Marea Gryskiewicz –
schommer.eastpolk@gmail.com

District Technician – Jenna Wiersma –
wiersma.eastpolk@gmail.com

Office: 218-563-2777

Website: <https://eastpolkswcd.org/>

Sandhill Watershed District

219 N Mill St
Fertile, Mn 56540

Administrator– April Swenby

Office: 218-945-3204

Website: <http://www.sandhillwatershed.org/index.html>

Red Lake Watershed District

1000 Pennington Ave S,
Thief River Falls, Mn 56701

Water Quality Coordinator– Corey Hanson -
Corey.Hanson@redlakewatershed.org

Office: 218-681-5800

Website: <http://www.redlakewatershed.org/>

Maple Lake Improvement District

Po Box 41
Mentor, MN 56736

Brian Floan, President– 218-574-2345

Mike Moore, Vice President– 218-687-3637

Loren Able– 701-741-1147

Jim Baune– 218-779-5295

Roger Behm– 218-574-2035

John Bohm– 218-200-9016

Brian Wavra– 218-773-3083

Union Lake Sarah Improvement District

Po Box 61
Erskine, MN 56535

President– Shane Johnson– 218-289-3309

Vice President– Lonnie Paradis– 218-686-2522

Secretary/Treasurer–Ginny McCright– 218-234-2079

Polk County Aquatic Invasive Species Taskforce (AIS)

320 Ingersoll Ave
Crookston, MN 56716

Jacob Snyder-
jacob.snyder@co.polk.mn.us

Office: 218-281-5700

Website: <http://www.co.polk.mn.us/264/Polk-County-Aquatic-Invasive-Species-Tas>

PROMOTING STEWARDSHIP OF POLK COUNTY'S NATURAL RESOURCES

Lake Leader

www.eastpolkswcd.org

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East Polk SWCD



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