

Message from the President, Dan Reuter



Dear CLA Members,

Summer is finally here... I think, with the temps hitting 44 degrees and several frost warnings, I was beginning to doubt winter was over. With that said, today is a beautiful 90 degrees. With the warmer weather, it's good to see the boats on the water. Please be careful out there! The water is extremely low for this time of year.

In recent weeks, I have been receiving a lot of calls from members on new housing developments going in, around and near Cross Lake. I, as well as you, are also concerned about all of the new developments and how they will ultimately affect the lake and river, especially how they will eventually affect the quality of our water on the lake and river. With more boats, more trees, and natural shoreline being removed, and added street runoff, our lake and river will undoubtedly become more stressed with pollution and invasive species.

Unfortunately, the Association has no jurisdiction over what is being built on private property. Again, I want to reiterate, our primary mission and purpose: Cross Lake Association was formed in 1984 for the betterment and monitoring of, and improvement of, the water quality of Cross Lake and the Snake River of Pine County. Our goals are and will continue to be to strive to have a healthy lake.

We work in collaboration with county agencies, Minnesota DNR and DNR Fisheries as well as the Minnesota Pollution Control Agency regarding water quality and the watershed.

With that said, the CLA works hard on improving water quality and the surrounding watershed. What we cannot do, is tell homeowners what they can do with their property or what they build. We can recommend the best options for their shoreline when they are working on them, along with adding water gardens and holding ponds. We may also be able to get help from the county on some of these types of projects. I hope this explanation helps. Your best option is to be a voice in your community. Attend your local township and city council meetings. Another issue we face is our lake is divided into several townships: Pokegama and Chengwatana, which the lake is nearly divided in half from the north end to the Snake River, and Pine City. Attend your local township or city meetings and be a voice.

All the best and see you on the Lake!

Dan Reuter, President CLA Daniel.j.reuter13@gmail.com

612-209-6843



#### Summer is here!

Welcome to the June edition of the Cross Lake Crossings of 2021! We hope you continue to enjoy our publications

Membership can be renewed at:

website: https://crosslakeassociation.org

email info: info@crosslakeassociation.org

Dan Reuter, President dan@crosslakeassociation.org 612-209-6843

> Open Position VP Fisheries

Jody Klitzke, Secretary Newsletter Chair 651-245-8595 Jody@crosslakeassociation.org

Jeremy Berg, Treasurer 507-273-3763 Jeremy@crosslakeassociation.org

> Mary Reuter, Director Water Quality Chair Fair Parade Co-Chair maryreuter@gmail.com 612-209-6886

> Joe Paget, Director Pine County Fair Chair 651-353-1637

Margo Rothenbacher, Director Event Chair 651-278-5034

> Don Deutsch, Director Water Quality Tester 651-442-3796

Roger and Deb Larson Directors Freedom Fest/Water Quality 612-750-8587

Cross Lake Association of Pine County PO Box 325 • Pine City, MN 55063

## Cross Lake 2021 Calendar of Events

Lightened-Up Creamy Broccoli Salad

Board Meeting Monday, March 8th, 6:30 - 8:30 pm

## **Spring Membership Meeting**

Sat. May - 15th, 10:00 am - 1:00 pm Pine City Country Club Speaker: Paul Swanson District Mgr of Pine SWCD Shoreline Restoration & Grant Money Available Coffee & Donuts

Freedom Fest

Sat. June 26th - Sun. June 27th CLA will not be participating this year

4th of July Sunday - Boat Parade Registration Starts at 12:30 Norway Point area Prizes awarded for best 3 decorated boats

Art in the Park Every Friday from May 28th- July 30th

Pine County Fair Tue. August 3rd - Sun. August 8th

Pine County Fair Parade We will have a flotilla and candy! Come join us in the line up if you want to ride along

HWY36 Concert on the Lake Sat. August 14, 1:00 pm - ??? PM

**Annual Fall Meeting** Voting for Officers and Directors

Sat. September - 18th, 10:00 am -1:00 pm Pine City Country Club

#### **Final Board Meetings for 2021**

TBD

We as a board are still working on final dates on board meetings and other event dates. Please look for more updates in future newsletters or on line. Who doesn't like broccoli salad? Here is a lighter recipe for you to try!

- 2 Strips low-sodium bacon
- 1/2 cup ice cubes
- 1/2 medium red onion, thinly sliced
- 1/2 cup buttermilk
- 1/3 cup reduced-fat sour cream
- 1/4 teaspoon finely grated lemon zest
- 1 tablespoon fresh lemon zest
- Kosher salt and freshly ground black pepper
- 6 1/2 cups broccoli florets (about 1 pound), cut into bite-size pieces
- 1/3 cup golden raisins
- 2 tablespoons salted roasted sunflower seeds

1. Combine the ice cubes, onions and 1 cup water in a small bowl. Let the onions soak for 10 minutes while preparing the rest of the salad, then drain and pat dry.

2. Cook the bacon in a small nonstick skillet over medium-low heat until crispy, about 8 minutes. Transfer to a paper-towel-lined plate to drain, reserving 1 teaspoon drippings for the dressing. Finely chop the bacon strips and reserve.

3. Whisk the buttermilk, sour cream, lemon zest and juice, reserved bacon drippings, 3/4 teaspoon salt and pepper to taste in a large bowl. Add the broccoli, onions and golden raisins to the dressing. Toss well, cover and chill for at least 1 hour and up to 4 hours.

4. Before serving, toss well and season with additional salt and pepper. Transfer to a serving dish and top with the chopped bacon and sunflower seeds.



# **Secretaries Desk**

by Jody Klitzke

#### Hi CLA Members!

I'm so excited that summer is finally here and can't wait to sit out on my floaty, playing with the grandchildren and taking the pontoon for a slow ride around the lake.

For my family and friends we like to have a lot of fun on the lake, but also think about safety and ensuring that we are all watching out for each other so there are no accidents that happen.

I hope you all have lots of fun, but please be safe on the lake!



Picture of big fish caught on Cross Lake at the North End by a CLA member. Courtesy of Eric T. Curran\_Bakken



Fisheries by Dan Reuter

Hi All

Just a little update on Fisheries for Cross Lake. I have been talking with Leslie George, she is our Area Fisheries Supervisor out of Hinckley, MN. They started up the research for the Quality Sunfish Initiative Program for Cross and Pokegama Lakes and did some netting on both lakes. This is some of what they caught:

On Cross, they netted 319 Bluegills with the average lengths at 7.5 inches with some as large as 9.3 inches.

On Pokegama there were 250 bluegills with the average lengths at 6.5 inches with some as large as 9.5 inches.

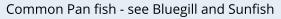
With this information, the DNR will be studying through the summer and have the official survey report available next spring.

Please watch the boat landings on both lakes for posted information on the project and contact info for comments and questions about it along with notices for a public meeting that will be held in the fall to discuss this further.

If you have any questions please feel free to contact me and I will do my best to assure them if I can not I will check with the DNR and get back to you.

Thanks Dan Reuter

612-209-6843





# **Cross Lake Association Accounting**

By

#### **Jeremy Berg**

ACCOUNTS	Jun 08, 2021
Assets	
Cash and Bank	
General Checking 🖻	\$28,815.83
Money Market 🖾	\$5,777.25
North End Project 🖻	\$16,000.00
Scholarship Fund 🖻	\$2,973.42
Stearns CD 🖻	\$5,489.35
Total Cash and Bank	\$59,055.85
Other Current Assets	
Total Other Current Assets	\$0.00
Long-term Assets	
Total Long-term Assets	\$0.0
Total Assets	\$59,055.8
Liabilities	
Current Liabilities	
Lifetime Membership 🖻	\$25.0
Prepaid Dues 🗈	\$600.0
Total Current Liabilities	\$625.0
Long-term Liabilities	
Total Long-term Liabilities	\$0.0
Total Liabilities	\$625.0
Equity	
Retained Earnings	
Profit between Jan 1, 2021 and Jun 8, 2021 🖻	\$7,252.9
Retained Earnings/Deficit 🖻	\$51,177.8
Total Retained Earnings	\$58,430.8
Total Equity	\$58,430.8

Profit and Loss			
Cross Lake Association			
Date Range: 2021-01-01 to 2021-06-08			
ACCOUNT NUMBER	ACCOUNTS	Jan 01, 2021 to Jun	
	Income		
	Investments – Interes	\$3.50	
	Member Dues	\$6,923.00	
	Newsletter Reimburs	\$4,912.23	
	Sales	\$60.00	
	Total Income	\$11,898.73	
	Total Cost of Goods	\$0.00	
	Gross Profit	\$11,898.73	
	Operating Expenses		
	Fireworks	\$500.00	
	Form 990 Taxes	\$40.00	
	Meeting space renta	\$125.00	
	Member Food	\$60.00	
	Membership Dues	\$170.00	
	Newsletter mailing	\$773.75	
	Newsletter printing	\$1,550.99	
	PayPal Processing fe	\$68.58	
	Postage & Delivery	\$1,000.00	
	Website	\$276.97	
	Zoom	\$80.45	
	Total Operating Exp	\$4,645.74	
	Net Profit	\$7,252.99	

## Membership

158 paid members for 2021 totaling \$6838

There is approximately 500 total houses on Cross Lake and the Snake River. Please talk to your neighbors and stress the importance of becoming a member for our lake. and river.

Accounts	
General Checking	\$28,815
Money Market	\$5,777
North End Project	\$16,000
Scholarship Fund	\$2,973
Stearns CD (0.4% int)	\$5,489.35
Total	\$59,055.85

ACCOUNTS	Jan 01, 2021 to Jun 08, 2021
Income	
Investments – Interest 🖻	\$2.84
Member Dues 🖻	\$6,663.00
Newsletter Reimbursement	\$4,912.23
Sales 🖻	\$60.00
Uncategorized Income 🖻	\$260.66
Total Income	\$11,898.73
Total Cost of Goods Sold	\$0.00
Gross Profit As a percentage of Total Income	\$11,898.73 100.00%
Operating Expenses	
Form 990 Taxes 🖻	\$40.00
Membership Dues 데	\$170.00
Newsletter mailing 🖻	\$773.75
Newsletter printing 🖻	\$1,550.99
PayPal Processing fee 🖻	\$68.58
Postage & Delivery 🖻	\$1,000.00
Uncategorized Expense 🖻	\$685.00
Website 🖻	\$276.97
Zoom 🖻	\$80.45
Total Operating Expenses	\$4,645.74



# Summer FUN! by Jody Klitzke Continued from last newsletter

One of the best things about summer is that you can enjoy family and friends by getting outside in the sunshine. You can make your own fun! Here are just a few things that I found on the Parents magazine website:

- Build a backyard obstacle course using things like, hula hoops, sticks, stones, etc.
- Camp in the yard
- Do a bike parade in your neighborhood
- Make a bird feeder
- Color with chalk on the driveway
- Teach your kids how to cook and make simpler things
- Do a picnic in the yard or on your deck, whichever you prefer
- Paint outside, you can use paper, rocks, etc.
- Tour a Police or Fire Station
- Of course "Go Fishing", living on a lake affords us this one.
- Play games like football outside in the yard
- Participate in a community park activity or volunteer to create some for kids in the area
- Enroll in a art class at the Pine Center for the Arts
- Go for a cruise around town and explore Pine City
- Do a toy swap at the park
- Volunteer your time, this teaches kids compassion and responsibility. i.e. do a clean park day and then have a barbecue after
- Check out the Snake River Fur Post
- Arrange a scavenger hunt
- Build a Bonfire I know we all like to do this on the lake, include smores for a treat
- Watch movies outdoors
- Read a story, maybe not too scary, depending on the kids ages







#### Parents Magazine website:

https://www.parents.com/fun/activities/ outdoor/cheap-summer-fun/?slide=slide\_ 5a054f85-65cb-4eb7-8dc9-fab0334833ee# slide\_5a054f85-65cb-4eb7-8dc9fab0334833ee



### Summer can be fun for all with a little ingenuity and imagination!



# **First Friday Gallery Openings**

Pine Center for the Arts features local artists each month. Opening receptions are held the first Friday of the month, from 4-7 pm. Local brews from 320 Brewery, wine and appetizers will be served.
The Gallery is free and open 3-5 pm on Thursday;
4-6 pm on Friday; and 10 am-12 pm on Saturday.





# **3rd Avenue Gifts**

Whether you're looking for a thoughtful handmade gift or a unique finishing touch for your home or cabin, you'll find beautiful art and crafts made by local artists at Pine Center for the Arts' 3rd Avenue Gifts. **Open during Gallery Hours.** 

# **Summer Arts Programs for Kids**

June and July | FREE We're busy planning loads of fun, creative and free classes for our Summer Arts Programs. More information coming soon! Watch for details at www.PineCenter.org





This activity is made possible by the voters of Minnesota through an operating grant from the East Central Regional Arts Council thanks to a legislative appropriation from the Arts & Cultural Heritage Fund.



Classroom & Gallery Space | 265 5th Street SE, Pine City, MN 3rd Avenue Gifts | 505 3rd Ave SE, Pine City, MN 55063

# **Music on the Lake**

by

#### Margo Rothenbacher

Welcome to Spring and Summer 2021, the ice is out and so are the boats!

Last year the Cross Lake Association teamed up with lake member Paul Rynder's band,

Highway 36!

On Saturday, August 14, 2021 starting at 1:00 pm, the Highway 36 band will perform once again for all to enjoy music on Cross lake.

There was an overwhelming positive response by members of the association about this event last year with lots of boats, kayaks and jet skis in attendance.

- We even received a hand written thank you note!
- Lake owners who were listening from the shores seemed to truly enjoy the music also!

We are also asking for boaters of every kind to share kindness by donating to the Pine City Food Shelf during this concert. We will have a boat on the lake with a sign that will be collecting the goods. The CLA will deliver the items to the food shelf.

This concert will replace the Fall Winter Dance.



Water Quality by Mary Reuter,-Chair

#### Hello Cross Lakers! And Snake River Peeps!

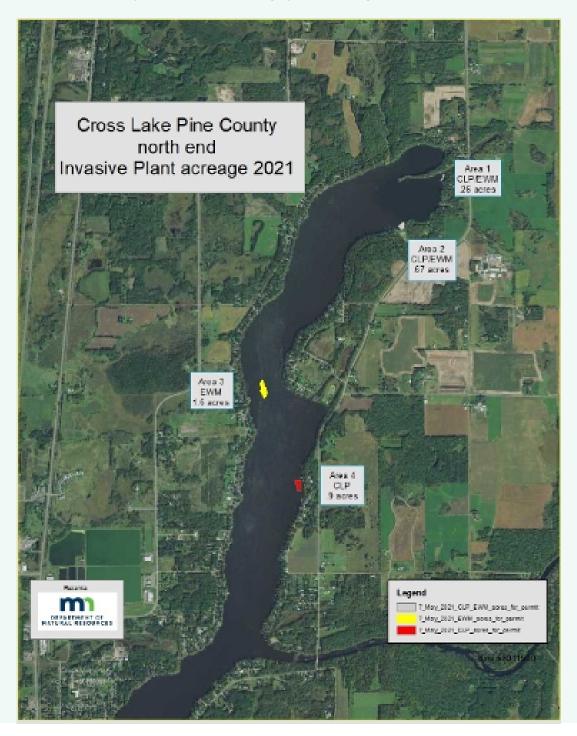
Another great season is on its way and the Water Quality team is busy already. Our work begins actually in January getting signatures obtained for the DNR permits, sending them to the DNR, and securing Lake Management to treat the lake. Another great thing we've started again this spring is water testing like we did last year for such things as lake temperature, nutrient load, and PH levels. We will be doing this 2x a month every other Tuesday at 10 a.m. so if you are interested in joining us, just let me know and you can ride along. It takes about 2 hours. Don Deutsch is our guru extraordinaire on all things science and I am so thankful for him and his expertise and willingness to help get these tests done and sent off to various entities such as the Minnesota Pollution Control Agency. Since the COVID shutter, I have not held any water quality meetings. I am hoping to get them started up again shortly. In the meantime, if you have topics you would like to know about or discuss, please send them to me at <u>waterquality@crosslakeassociation.orgormaryreuter@gmail.com</u>. I will get an agenda going and a meeting if we get enough people who want to meet.



#### 2021 Eurasian Water Milfoil and Curly Leaf Treatment on Cross Lake and part of the Snake River.

The areas on this map indicate areas that were treated in mid-May. The permit was issued for two treatments. Notice that only a few areas were treated this spring due to the cold weather and little plant growth. If the growth of either Curly-leaf Pond Weed or Eurasian Water Milfoil spikes, we will be able to treat again this .

After taking a cruise around the lake and checking our usual treatment spots, I have placed a call to the DNR for additional treatment. Lake Management marks the treated area with a small balloon, so you may or may not notice it. The area is still safe to swim in or fish. We treat with Aquathol® K which is a concentrated herbicide formulated to effectively eliminate a wide variety of submerged weeds. Aquathol® K begins working on contact to inhibit protein synthesis while breaking down cellular structure or submerged weeds including hydrilla, and curly-leaf pondweed. To treat the Eurasian Water Milfoil, we treat Eurasian Water Milfoil with Hyrothol® which is a highly effective algaecide and herbicide.





Credit to ©2021 Regents of the University of Minnesota<u>https://www.maisrc.umn.edu/about-curlyleafpondweed</u>and https://www.maisrc.umn.edu/about-eurasianwatermilfoil

#### What it is?

Curlyleaf pondweed is a non-native, invasive aquatic plant that can grow in very dense stands, displacing native species. One of its advantages is that it produces hardy turions – buds that can remain viable for long periods before sprouting to form new plants. Curlyleaf pondweed can grow in depths up to 15 feet.

#### Life cycle

Curlyleaf pondweed is generally the first pondweed to come up in spring, helping distinguish it from other native pondweeds. It dies in the mid-summer, and dead plants may accumulate on shorelines. Its primary means of reproduction is through the production of turions, hundreds of which can be produced by each plant. Turions remain dormant in the sediment through the summer and germinate in the fall. Germination rates can be as high as 80 percent, and turions can remain viable in the sediment for two or more years.

#### What it affects?

Curlyleaf pondweed displaces native plants, disrupting vegetation structure that provides forage and shelter for waterfowl, fish, invertebrates, and algae-consuming zooplankton. It also reduces recreational opportunities for swimmers and boaters by forming thick surface mats.

#### Where it's found

Curlyleaf pondweed occurs in over 750 water bodies in Minnesota, spread throughout 70 out of the state's 87 counties. It is native to Eurasia, Africa, and Australia, but is now found throughout much of the United States.

#### How does it spread?

Curlyleaf pondweed is spread by humans inadvertently transporting plants and/or fragments among waterbodies. Infestations often occur in high-use lakes.

#### What does it look like?







Curlyleaf pondweed produces a long stem (up to a meter) with small, submerged leaves that have distinct "teeth," or wavy edges. In the spring, its turions look like small greenish-brown pinecones.

# About Eurasian and hybrid watermilfoil

Eurasian watermilfoil (*Myriophyllum spicatum L*.) is an invasive aquatic plant that was introduced to North America in 1880 in New York state. It grows rapidly and tends to form a dense canopy on the water surface, which often interferes with recreation, inhibits water flow, and impedes navigation. Eurasian watermilfoil is a particularly problematic aquatic weed, due to its ability to reproduce from fragments and spread rapidly, its high growth rate in a range of temperatures and environmental conditions, and its tendency to reach the surface and form extensive mats of plant at the surface, which can allow it to shade and outcompete native vegetation.

#### What it is?

Eurasian watermilfoil is a submersed vascular plant in the family Haloragaceae. It is native to northern Europe and Asia. Several other members of the genus*Myriophyllum*are native to North America. In Minnesota, the native northern watermilfoil (*M. sibiricum*) is common, but is often displaced by Eurasian watermilfoil. Eurasian and northern watermilfoil hybridize and hybrids are now found in a number of lakes in North America, including Minnesota. This hybrid watermilfoil is also considered invasive.

As with most invasives, the best approach is to prevent invasion. Once an invasive species is established it is highly unlikely to be eradicated. New tools are being developed to predict new exotics and to develop strategies for preventing their introduction. Minnesota's program of education, laws that prohibit transport and boater inspections appear to have slowed the spread of Eurasian watermilfoil, however, prevention is not 100% effective and control measures will likely be required for established infestations.

#### Life cycle

Eurasian watermilfoil reproduces from fragments and seeds. Although reproduction from seeds was thought to be uncommon, the presence of hybrids and viable seeds suggests that sexual reproduction can be important. Plants flower once they grow to the surface in June-September; the emergent flower spikes give the plant its scientific name (*M. spicatum*). The plant will also produce autofragments in the summer; small branches that break off the plant and form roots which can establish new plants. Any fragment of the plant stem that includes a node (whorl of leaves) can produce a new viable plant. Eurasian watermilfoil stores carbohydrates in the lower stems and root crowns which enables the plant to survive over the winter, even with low or no light under the ice. In the spring when water temperatures approach 10-15 °C (50-60 °F) the plant will begin growing out of the rootcrowns and sometimes overwintering stems and grow toward the surface. The plants often form a canopy throughout the summer that shades out native plants.

#### Where is it found?

Eurasian watermilfoil is currently found in more than 45 states and three Canadian provinces and it is estimated that millions dollars are spent annually on control. It was first found in Minnesota in 1935 in Lake Owasso (Ramsey County). By 1999, it had colonized over 100 waterbodies and by 2015, it was found in roughly 300 lakes in Minnesota.

#### How does it spread?

Eurasian watermilfoil is spread most commonly by inadvertent transport by boaters, however some waterbodies appear to have been infested by natural means (downstream transport). Milfoil can get tangled in boat propellers or become lodged in other areas of the boat or trailer. The most important thing you can do to prevent its spread is to always clean, drain, dispose, and dry your boat between lakes.

#### What does it look like?

Eurasian watermilfoil has whorls of 4 feathery leaves, each with 12 – 21 pairs of leaflets (native northern watermilfoil has 5 – 9 pairs). It forms dense underwater stands of stems and mats of vegetation at the surface of the water. Mature plants have narrow flower spikes that emerge 2-5" above the water surface.<u>Learn more about</u> identification of Eurasian watermilfoil from the Minnesota DNR.







#### How to control it from spreading?

As with most weeds, there are three general control strategies that can be employed: mechanical/manual, chemical, and biological.<u>Learn more about each strategy here</u>. Click here for<u>more information specifically about the</u> <u>milfoil weevil</u>. (below is the non-hybrid EWM that is currently found in Cross Lake, the Snake River and Pokegama Lake.

Hybrid watermilfoilCurrently not found in Cross, Pokegama or the Snake River

#### Myriophyllum spicatum x Myriophyllum sibiricum

Eurasian and northern watermilfoil hybridize and hybrids are now found in a number of lakes in North America, including Minnesota. This hybrid watermilfoil is also considered invasive.

**Species**: A rooted, submersed aquatic plant, which is a hybrid of the native northern watermilfoil and non-native Eurasian watermilfoil.

**Origin**: Eurasian watermilfoil is native to Europe, Asia, and Africa. It was most likely introduced to North America from Asia in the 1940s. The hybrid has arisen in North America by sexual reproduction between the native and non-native species and was first documented in the early 2000s.

**Impacts**: Like Eurasian watermilfoil, hybrid watermilfoil can form dense monocultures with surface matting that can shade out native plants, inhibit navigation and disrupt recreation. Some genotypes of hybrid watermilfoil are more tolerant of some herbicides and, thus, more difficult to control.

**Status**: Widespread throughout North America, but distribution among lakes is less well-documented because genetic analysis is required for certain identification. As of 2017, hybrid watermilfoil had been confirmed in 23 lakes in Minnesota, but likely occurs in many more.

**Where to look**: Look in waterbodies that have Eurasian or northern watermilfoil, in water depths from two to 15 ft. It can be found in lakes by itself or in lakes with either or both parent species. Regulatory classification (agency): It is a prohibited invasive species (DNR), treated as Eurasian watermilfoil in Minnesota.

**Means of spread**: Boats, boat trailers and water recreation equipment. If a waterbody has both Eurasian and northern milfoil present, they may produce hybrid watermilfoil offspring.

#### How can people help?

- Remove all aquatic vegetation before transporting aquatic equipment.
- Notify the DNR Invasive Species Program with the exact location, if you spot suspected hybrids.

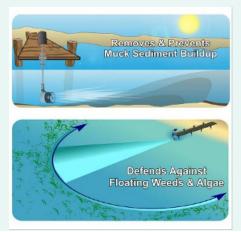
#### Keys to ID:

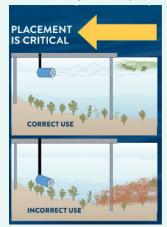
- Looks intermediate to Eurasian and northern watermilfoil.
- Compare the typical number of pairs of leaflets on a leaf
- Eurasian watermilfoil: 12-21
- Northern watermilfoil: 5-9
- Hybrid watermilfoil leaf: 8-12

Looking for ways to make your swim area more desirable without chemicals or weeding?Check out the hydraulic jet.No need for a DNR permit! And the Fish love it!However, there are a few rules by the MN DNR:

#### Know the rules

- Legal: Blowing away floating surface debris and algae, if lake bottom is not disturbed. No permit is needed.
- Not legal: Using a hydraulic jet in any way that disturbs the lake bottom or uproots aquatic plants. Illegal use of hydraulic jets may result in a citation, restoration order or both from a state conservation officer. Consider fish, water quality and neighbors
- Illegal use: Destroys fish habitat and clouds the water.
- Improper use: Creates mats of vegetation and unnatural sediment berms that reduce enjoyment of the lake. Hydraulic jet brand names examples include: HydroSweep Pro, Aqua Thruster, Aquasweep and Aqua





## **Point intercept Survey**

Starting this month in June, Limnopro Aquatic Science, Inc., will be conducting a Point intercept survey.

Cross Lake is classified as a deep lake in the North Central Hardwood Forests Ecoregion. Cross Lake has an excessive amount of what is called nuisance growth on the lake that includes the invasive Curly Leaf Pondweed and Eurasian Watermilfoil, along with native plants often found in lakes with high nutrients, including excessive growth of coonstail.In 2013, the MPCA designated the lake as being impaired for recreation because of excess nutrients. Limnopro will begin in June a lake-wide survey of Curly Leaf Pondweed during a period it is at its peak growth and a second survey in August during the peak growth period of most native plants and other potentially invasive species such as Eurasian Watermilfoil.

Point intercept surveys will be done at a depth of less than 15 ft where sunlight penetrates deep enough for plants to grow). Cross Lake has 508 littoral acres.

The standard rake density method will be applied during the point intercept survey. Pre-loaded GPS coordinates, equally spaced at a chosen point spacing will be loaded to an onboard GPS/sonar unit. The surveyors travel to each a point where a double-sided rake attached to a rope is tossed off the port side of the boat and dragged with four distinct pulling motions over an area of approximately three-meter (10 ft) length. All plants brought to the surface are identified to species and ranked on a density scale from 0 (no plant) to 3 (see right inset). Data will be tabulated and analyzed within a Geographic Information System to generate a series of analyses for assessment of plant condition. Once the survey is completed I will have a full report for members to read. We will then take the information gathered and share it with the DNR for further areas to be sprayed for invasive species and suggestions on how to manage nuisance plants.

Hoping you have a wonderful and eventful summer on the lake!

Please email or call me if you'd like to see this Aquathruster in action or with any ideas or questions.

Mary

#### Plant Rake Density Scoring



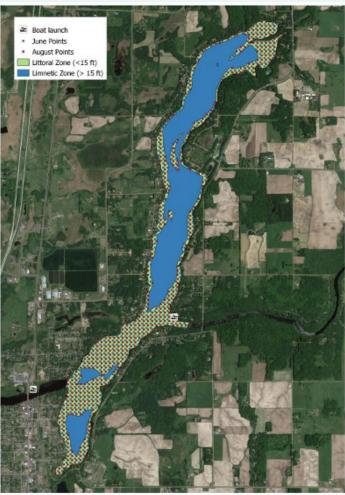
At least one plant but coverage is less than ½ the width of the rake



More than ½ the width of the rake contains plants but rake head is easily visible.



Entire width of rake contains over flowing plants and the top of the rake head cannot be seen.



Example point grid over the littoral zone of Cross Lake. The number of points are the correct number (1016 total) but a new grid will be produced to ensure all the littoral is covered.

# **Boating Safety**

## by Joe Paget, Roger and Deb Larson

## Be safe this boating season

Spring is here and it is time to get out and enjoy the lake. It is important for everyone to enjoy the lake, while being safe. During the year 2020, there were 49 non-boating drowning in Minnesota, and another 16 boating related deaths.Nobody believes a water tragedy can happen, but too often it does.

Cross Lake is a wonderful recreation area for boaters, kayakers, swimmers, and fisherman. Any time you are recreating on the water, there are considerations to keep you and your family safe. It is so important to make sure you have properly fitting personal flotation devices (life jackets) and wear them. Many of the fatalities from 2020 involved persons not wearing a life jacket. Always have adult supervision when young children are swimming in the water. And finally, always swim with a buddy.

Consider these tips before you and your family take to the lake.The circumstances in the water can change rapidly. Your preparation and safety awareness ahead of time can make all the difference.Do your part to make Cross Lake a safe place.



Boaters of all experience and skill levels must take seriously their safety responsibilities. Following are a few simple safety tips will help make your boating season fun, memorable and safe.

- Life jackets on, all the time. Don't just bring one, wear one. In Minnesota, 90 percent of boating fatality victims are not wearing a life jacket. By law, children under 10 years old must wear one while the boat is underway. Wearing a life jacket is the easiest step boaters of all ages can take to help ensure they get home safely.
- **Drinking and boating do not mix**. Boating under the influence is illegal and is the single greatest factor in fatal boating accidents. Keep the alcohol on shore for the safety of friends, family and everyone on the water.
- **Check safety equipment.**For those putting their boat in the water for the first time this season, it's important to check all safety equipment. That includes making sure life jackets fit and are in good condition and checking navigation lights, sound-producing device, fire extinguisher and carbon monoxide detectors. Also remember to inspect and use the engine cut-off lanyard.
- **Own the wake.** "Owning the wake" means understanding that all boats produce wakes, so you need to be aware of the potential impacts of their wake. This includes impacts to others on the water, the shoreline, and equipment like docks and moored watercraft.
- **Know the rules**. Make sure you know Minnesota's boating laws and regulations.<u>An online education course</u>can help increase your knowledge.

In addition to helping to ensure safety, boaters also play a vital role in preventing the spread of <u>aquatic invasive species</u>. Every time your boat comes out of the water – whether an AIS inspector or enforcement officer is present or not – you must clean aquatic plants and debris from your watercraft, drain lake or river water, and dispose of unwanted bait in the trash. Remember to keep drain plugs out and water-draining devices open while transporting watercraft.

Get more information on safe boating at the following websites:

mndnr.gov/boatingsafety

https://www.dnr.state.mn.us/regulations/boatwater/index.html

## City and Township Area Map Provided by Dan Reuter

- Pine City
- Chengwatana
- Pokegama

**NOTE:** The dark blue line drawn down Cross Lake shows the division of Pokegama and Chengwatana.





2021

**Cross Lake** 

Association

## Purpose and Objectives of CLA – Mission Statement

Parts taken from Art.II Sec. A of the current Bylaws

Cross Lake Association of Pine County is a nonprofit organization under the laws of the State of Minnesota (Ch. 317A). The mission and purpose shall include, but not be limited to, the promotion and improvement of the understanding and comprehensive management of Cross Lake, Pine County fisheries, and its watershed. The objectives of the Association shall be clean water, recreation, operation walleye and other services from government and sociability. The Association was granted exemption on April 10, 1987 as a nonprofit 501(c)(3) charity under the Internal Revenue Code of 1954.



#### Serving Cross Lake and the Lower Snake River

Cross Lake Association P.O. Box 325 Pine City, MN 55063

Non-Profit U.S. Postage PAID Pine City, MN 55063 Permit No. 8

Forwarding Service Requested

## **2021 MEMBERSHIP APPLICATION**

(Membership year runs from Jan. 1 thru Dec. 31, 2021)

Member Name(s)						
Mailing Address						
City, State, Zip						
Phone Number		_Primary Email				
Secondary Email (optiona	l)					
Pine City Address (if differ	rent than above)					
Send newsletter	by email (environmen	tally Friendly & saves ເ	ıs money)			
I would be willing to help with the following (circle all that apply)						
Governing Board	Membership	Newsletter	Boat Parade	Garage Sale		
Senior Outing	Freedom Fest	County Fair	Fair Parade	Dinner Dance		
<b>Membership Categories: (Check one)</b> Regular \$25  Contributing \$30-\$40  Associate \$45-\$50Sustaining \$60-\$85 Sponsor \$100+ Lifetime \$500+ Benefactor \$800+						

Mail to: The Cross Lake Association, P.O. Box 325, Pine City, MN 55063 or pay on website: https://crosslakeassociation.org