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This magazine is a biannual publication of the Sauk River Chain of Lakes Association (SRCLA). The opinions expressed in the stories printed herein are those of the authors and do not necessarily reflect the opinions nor the official position of the SRCLA nor any of its directors or members. Please address any comments or inquires to the committee contact. The magazine is printed by the Cold Spring Record.

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# President's Message

### by Brad Matuska, SRCLA President



SRCLA President Brad Matuska

No duty is more urgent than that of returning thanks. – James Allen

Your Sauk River Chain of Lakes Association (SRCLA) is a dynamic and thoughtful group of dedicated people that I am so grateful to be a part of. And what amazing work they do! Just take a

look at the following pages of the projects that help the SRCLA accomplish its mission. I am so thankful for them! A great example was our Administrator, Ann Warling, who moved away and is no longer working with the SRCLA. Ann used her skills and wealth of experience to organize our data, communications, and projects in a smart and effective fashion to serve our members. Also, Susan Antolak, our marketing guru, is leaving the Board after 8 plus years of service! Her marketing expertise and diligence will be missed. Thank you Ann and Susan!

A quick review of what's going on in 2023: We continue to celebrate our financial support through our over 500 members and our charitable gambling at Shady's Long Shots which now includes horse racing. We celebrated some of the highest levels of water clarity on record. We celebrated our ability to achieve a level of control against the invasive plants, curly-leaf pondweed and hybrid watermilfoil. We continue to celebrate

our partnership with the Stearns County Sheriff's Department who patrols our waters and helps keep aquatic invasive species out of the Chain. We still have challenges too. Our phosphorus concentration in the water is a bit too high, and we still don't have management options for zebra mussels. However, our friends at the University of Minnesota are working diligently on possibilities.

If you have a love for the Chain and are as grateful as I am by the work of the people of the SRCLA, you can help by being a member, volunteering, and gambling a bit at Shady's. Please come to our Annual Meeting on Saturday, June 10 at 9 am at Shady's Long Shots in Cold Spring. Also, consider doing a shoreline restoration of your property or not using lawn fertilizers to reduce nutrient run-off. Please continuously visit our website, srcl.org, for resources and updates. And most of all, thank you for being a friend of the Sauk River Chain of Lakes!

# LET SIT RULE

Minnesota law requires docks and boat lifts to be out of the water for at least 21 days before putting them in another body of water.





Stewards of the Sauk River Chain of Lakes

# **Vice President's Notes**

# by Aaron Schwartz, SRCLA Vice President

Last summer, I put my name in for the vice president role with the SRCLA. My main motivation to take on the role was the feeling that we have an opportunity to build something special. Building on the work that previous board members had done, I felt we were in a position to expand our reach. Previously, we had done a good job reaching out to our membership keeping them informed with our mailings and newsletters, but there are other stakeholders that we still struggled to connect with. Try as we may to increase our mailers and reach new people, we were and still are limited in scope by the cost of mailing and the effectiveness of reaching all of our stakeholders via mail.

This led me to think back to a time I was frequent visitor to another water system. This system also has a very active lake association, and they had built a social

Hello Fellow Association Members and

Lake users! I am happy to report that

2022 was a good year for the SRCLA in

terms of membership, money raised, and

money spent. With the addition of the

gambling proceeds we receive from

Shady's Long Shots, we set a high budget

media presence that became the go-to place to learn what was happening on and around the lake. It's this memory that drives my current mission, to build a social community that reaches far beyond mailboxes. My vision is to create a space where lake shore members, neighboring community members, local businesses, and visitors can easily share what's happening on and around the lakes at any given time. The goal is to build a network where we can provide vital information quickly with our stakeholders whether that be rising waters or dangerous cracks on ice roads to ice fishing spots.

It is with this mission in mind that the SRCLA Board has partnered with Extend Marketing to increase our social media reach. In January, we launched an Instagram page @saukriverchainoflakes and revamped our Facebook https://www.facebook.com/-saukriver-

chainoflakesassociation/. It is through these avenues that we plan to connect with an ever-growing number of people to continue to build a vibrant lake community.

I know that the work we have already done will have an outsized impact; however, for this to truly have its desired effect, we need all of you. Please take a few minutes to look up our accounts and follow us for updates. We will be asking everyone to share lake life photos and what you enjoy about our beautiful water system. Also, if there are events that you would like us to share with our community, please let us know, that goes for our business elite members as well. Much like the lakes themselves, this community is for all of us to share and enjoy.

Thanks everyone, and I look forward to seeing you all out on the water.

by Troy Atkinson, SRCLA Treasurer

# **Treasurer Report**

error we found this summer and corrected. **Total Expenses - \$167,134** 

**Administrative Costs** \$10,541 Marketing \$19,812 Water Quality \$2,831 Land Use \$2,925 **I-LIDS** \$8,552 AIS \$122,473 **Final Balance Sheet for 2022** 

We ended 2022 with the following-Cash-\$58,817

CD's (2)-\$21,761 **Total Cash and CDs** \$80,578 Other Assets- \$47,000

**Total - Cash & Assets** \$127.578

We took inventory of everything that the association owns including Rock Buoys, I-LIDS, computers, marketing materials, promotional items, etc. to come up with "Other Assets."

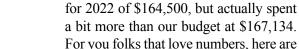
### 2023 Financial Outlook

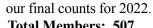
For 2023, we once again put together a budget that has us spending over \$157,000 this year. We are sitting in a good financial position but do need your memberships and the gambling proceeds

we receive to keep up this amount of spending on programs and services that are vital to taking care of the Sauk River Chain of Lakes.

We cannot do this without your support. We are looking to really hit the new hybrid watermilfoil infestation hard in order to prevent it from spreading further or from adding another invasive species to deal with each year. We need your membership and participation to spread the word on how the SRCLA is here to help all of us be the best stewards of the lakes we can. Please join the association and reach out to your neighbors and the other 1200+ lakeshore owners to show your support of the SRCLA. Share our magazine, The Chain Link, with others to help explain what we are doing to make the Chain of Lakes better for everyone.

If you have any questions or want more details on the financial report for 2022 or the budget for 2023, please reach out to Troy@pierceinsurance.com. Thank you!





**Total Members: 507** 

This consists of Individual/Family members- 451

**Business members: 56** 

We were down a bit from 2021 - 468 individuals and 58 businesses- so 526 total.

### **Total Income - \$110,128**

Membership dues \$42,570 Grants \$20,978 Gambling proceeds \$40,000 Interest Income \$132 Newsletter ads \$325 CD (cashed in as due) \$6123

Income decreased from \$141,000 in 2021 as our gambling proceeds were down by half due to a rent calculation



# **AIS Awareness and Prevention Report**

# by Steve Weeres, AIS Awareness & Prevention Committee

The Sauk River Chain of Lakes Association (SRCLA) AIS Awareness and Prevention committee leads activities to reduce the likelihood of transport of AIS both into and out of the SRCL. This is accomplished primarily through implementation and management of awareness and prevention efforts at the four public access points on the SRCL. The committee also may implement AIS education and awareness activities with the broader community.

The SRCLA continues to maintain the Internet Landing Installed Device Sensors (I-LIDS) at the four public access points on the SRCL; Highway 23, Highway 22, County Road 71, and Long Lake. The I-LIDS system is designed to automatically monitor boats/trailers upon entry or exit from the landing. When a rig is detected, I-LIDS plays multiple educational messages and triggers the camera to capture and transmit high-resolution videos of the boat/trailer's condition over the Internet to a remote server. There, the videos are reviewed by trained personnel as part of an ongoing service provided by Environmental Sentry Protection. Videos are reviewed for compliance with State Law relating to the transfer of aquatic plants on the boater's equipment. Videos of potential violations are further re-

viewed and posted on a secure website where we can review the videos for confirmation. If violations are detected, the Stearns County Sheriff is notified, and the owner of the boat can receive a warning or citation. The Sheriff's department has renewed its commitment to assist with the enforcement of AIS transport regulations for the 2023 season.

From the data gathered by the I-LIDS systems installed at the access point, we can quantify the number of launches in a season. A summary of the data from the past five years is shown below.

Total Observed Launches					
	Year				
Access Point Location	2018	2019	2020	2021	2022
Highway 23	689	673	496	463	458
Highway 22	902	787	897	824	1159
Highway 71	708	468	498	411	852
Long Lake				644	809
				2342	3278

As the access point usage increases, the chances for inadvertent import/export of AIS increases as well. Hence, it is paramount to maximize AIS awareness at the point of access. The SRCLA is committed to maintaining the I-LIDS systems as our primary tool to emphasize the preventative actions required to minimize the spread of AIS.

We all have a responsibility to protect our lakes, rivers and wetlands. We can do this by:

- Learning to recognize aquatic invasive species
- Following Minnesota's AIS laws and regulations
- Clean and drain boats and equipment before leaving a water access
- Dry boats and equipment for a minimum of 5 days before entering another water body.
- Throw all unwanted bait in the trash. It is illegal to release live bait in the water. We can all do our part, both with our own

activities and reminding visitors of the importance of following proper procedures when launching and retrieving watercraft.

We are always looking for new ideas to promote awareness of AIS transfer. If you have an idea or are aware of effective methods others have implemented, contact the author at SteveSRCLB-@gmail.com.







# **Aquatic Invasive Species (AIS) Committee**

<del>by</del> Gene Krebs, AIS Committee

The Sauk River Chain of Lakes Association (SRCLA) completed another year of trying to manage the invasive species that have come to inhabit our beautiful lakes. Hybrid watermilfoil (HWM) was surveyed in Horseshoe last summer and a late season treatment was completed. We are also now infested with zebra mussels along with the everpresent curly-leaf pondweed (CLP). Key areas of CLP were also harvested and chemically treated.

Mechanical harvesting will be implemented again in an effort to attain some control of CLP along with some chemical treatments in areas permitted through the DNR. Chemical treatments will also be used in an attempt to slow the spread of HWM. SOLitude has been retained to professionally administer the chemical treatments along with Limnopro to do the post-treatment surveys. Unfortunately, there is no effective way to treat for zebra mussels. There is ongoing research at the Minnesota Aquatic Invasive Species Research Center at the University of Minnesota, and we are closely watching and hoping for positive results.

The funds to support chemical treatment, surveys and mechanical harvesting are provided by gambling proceeds at Shady's Long Shots, membership dues, and grants from the DNR and Stearns County.

Please remember to Clean Drain and Dry all of your equipment when entering or exiting the water. If you purchase a dock or lift that is coming from another body of water, it is required to

have that equipment sit on land for at least 21 days. Any organism on the equipment will die off in that time frame.

For any questions involving aquatic invasive species visit our website srcl.org. The plant survey results and treatment area maps are continuously updated and located at scrl.org/projects/. Please be aware that the SRCLA does not manage the aquatic plants along the frontage of properties. For resources on how to manage your frontage, (go to "About Us" and then "Aquatic Plant Management) at scrl.org. Any additional ques-Gene tions contact Krebs (gene.j.krebs@-gmail.com) or Wayne (ontraxtruckrepair@embarqmail.com).

# Learn about the AIS Detectors Program

by Megan Weber, Extension Educator, University of Minnesota

Aquatic invasive species (AIS) can be a depressing topic. We all hear a lot about the negative impacts invasive species can have on the water bodies we love. The infested waters list maintained by the Minnesota Department of Natural Resources grows each year. And it feels like there's always a new species to worry about on the horizon. It can build up and it's easy to feel like there's no hope with all those negative reports and feelings building up. One of our program's goals at the University of Minnesota is to create opportunities for any Minnesotan to become part of the solution to aquatic invasive species prob-

The AIS Detectors Program at the University of Minnesota is the result of a partnership between the Minnesota Aquatic Invasive Species Research Center and University of Minnesota Extension. The program was born in 2017 with the launch of the AIS Detectors

volunteer program and has since grown to offer a full suite of educational, volunteer, and participatory science programs and events. We hope to have something for everyone in our lineup whether you're ready to commit to long-term annual volunteering or just want a chance to learn a little something new. No matter how involved you wish to be, each of these programs and events provides opportunities to learn more, get engaged, or make on-theground impacts towards the problems we face with AIS in Minnesota. As you read on, you'll learn more about each of these programs, how they provide opportunities to make a difference, and (if you're interested) how to get involved. AIS Detectors Core Course & Vol-

# unteer Network

The AIS Detectors Core Course is our flagship program. With over 13 million surface acres of water in Minnesota and not enough paid professionals in the state to cover it all, this program seeks to increase the capacity for AIS efforts in Minnesota by building a dedicated network of passionate, lake-loving volunteers. We offer the Core Course each spring and now have live workshop options that are either virtual or in-person. No matter which you choose, your learning begins online with a self-paced course where you'll learn basics of aquatic ecology, more about invasive aquatic plants, invertebrates, and fish, how to identify target invasive species from native look-a-likes, AIS regulations in Minnesota, how to report invasive species, and how to do monitoring on your own. Following the self-paced online course, you'll join the instructors for a live workshop either online or inperson for an active day of learning building on what you learned online.

After successfully completing the course, you become a Certified AIS De-

AIS Detector Program continued on page 8





### AIS Detector Program continued from page 7

After successfully completing the course, you become a Certified AIS Detector and can become part of the AIS Detectors volunteer network. Volunteers can either respond to requests for volunteers or give time in their own ways that contribute to AIS early detection, outreach, research, and management. The program has grown and evolved over the years and now also includes a special track for professionals interested in AIS related professional development as well. Since the program launched, 420 people have become Certified AIS Detectors! Registration for the AIS Detectors Core Course is open now! If you'd like to learn more about the Core Course and register visit z.umn.-edu/DetectorsRegistration.

### **Starry Trek**

Starry stonewort is a relatively new invader to Minnesota with the first discovery in Lake Koronis, not far from the Sauk River Chain of Lakes, in 2015. After a series of new discoveries in 2016 we saw a need for a broader search effort to better understand the distribution of starry stonewort in Minnesota. Starry Trek was developed to bring together passionate Minnesotans across the state in a one-day search for starry stonewort and other AIS. Volunteers participating in Starry Trek have been responsible for the discovery of 4 of the known populations of starry stonewort in the state, including the

population in Grand Lake in Stearns County. The early detection in Grand Lake is a contributor to the high degree of success management efforts taking place there have had. In addition to the 4 populations of starry stonewort, Starry Trek volunteers have reported new populations of zebra mussels, Eurasian watermilfoil, curly-leaf pondweed, invasive mystery snails, purple loosestrife, and freshwater golden clam. The Stearns County Coalition of Lake Associations has been a local host since the program's launch in 2017. Save the Date! If you'd like to participate, Starry Trek will be held on August 19, 2023. Learn more at www.starrytrek.org.

### **AIS Management 101**

Despite the prominent role lakeshore residents and lake associations play in making decisions surrounding AIS management, there are very few (if any) educational opportunities for non-professionals to learn more about the factors that can impact management decisions. We created a fully online course, AIS Management 101, to help individuals become more informed consumers of aquatic invasive species management. This course is offered every year in February. If you'd like to be sure to hear more about it when registration opens for next year, you can sign up for updates at z.umn.edu/-Notify-Me-AISmgmt101.

**Aquatic Plant ID Workshop** 

Did you know Minnesota is home to six native species of milfoil? Or that eight different types of carnivorous aquatic plants called bladderworts can be found in Minnesota waters? In partnership with the Minnesota Department of Natural Resources, we offer an aquatic plant ID workshop each year to offer the opportunity to see, touch, and learn to identify many of Minnesota's aquatic plants (both native and invasive). In 2022, we had live specimens from 70 species available! If you're ready to take your aquatic plant identification skills to the next level, then this is the workshop for you! This year the Aquatic Plant ID Workshop will be held in St. Paul on July 27th. If you'd like to get updates when registration opens, you can sign up at z.umn.edu/Aquatic-PlantID-Updates.

If one of these opportunities resonates with you, we hope to see you at one of our upcoming events! No single person will be able to solve all the problems associated with aquatic invasive species, but anyone can become a part of the solution. We hope opportunities like these inspire you to become part of a positive force for Minnesota's water resources.







# Sauk River Chain of Lakes Association (SRCL) Land Use Assistance Contract/Application

0				
General Informat	cion		Amendment $\square$	Cancelled
SRCL		Yes 🗆 No 🗆		
Organization	Contract Number	Other federal or other state funds?	Board m	eeting date(s)
Applicant				
Land Occupier Name	Address	City/State	Zip	Phone #
Conservation Pra	actice Location			
Physical Address		Lake Name		
Contract Informa	tion			
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practice that w board or that the conservation p conservation di aforementioned	Ill the SRCL provide cost-shars removed by the land occ failed due to improper maint ractice listed are described in istrict technical representatived life, it shall be the responsibility that this contract is in force.	upier or landowner durin renance. The specific op n the operation and mair e. If title to this land is trar	g its effective life with eration and maintena ntenance plan prepare ensferred to another pare	nout consent of the SRCL nce requirements for the ed for this contract by the ty before expiration of the
	st be planned and installed i echnical Guide, and guidan District.			
verified by the	or which reimbursement is class SRCL board as practical and itted for reimbursement.			
Applicant Sig	natures			
The land occupier's	signature indicates agreemer	nt to:		
. Grant the organ	nization's representative(s) ac	cess to the parcel where	the conservation prac	tice will be located.
	Obtain all permits required in conjunction with the installation and establishment of the practice prior to starting construction of the practice.			
	ice certification, the project si imited to: reporting, documen		These photographs n	nay be used by the SRCL
Date	Landowner/Spokesper	son		
Date	Land Occupier		Address if different fr	om applicant information
	if different from applica	nt signature		

www.srcl.org Page 9

Land Use continued on page 10







CUI	nservation Practice
The	land project for which cost-sharing is requested is
1.	What is the primary objective of project?
2.	How will this project help our lakes?
3.	Effective life of project?
<b>Те</b>	chnical Assessment and Cost Estimate  Total project cost estimate
2.	Who has approved or engineered the project?
Enti	ty Contact Name Phone Number
2.	What percent is being paid by a government entity? What entity?
3.	How much are you needing or looking for to make sure project gets completed?
The	nount Authorized for Financial Assistance e SRCL Organization Board has authorized the following for financial assistance, to be funded to applicant after projections
	sompleted. \$from  Enter program name and fiscal year
is c	Enter program name and nood you





# **Gambling Report**

# by Karla Smetana, Gambling Volunteer Coordinator

We have continued our gambling opportunities at Shady's Long Shots in Cold Spring which is the largest source of income for us to financially support our mission. Thank you to all who participate!

Pull-Tabs and E-Tabs are available year-round. Mid-October until Easter we host BINGO on Wednesdays and the Meat Raffle on Friday nights. This January we added Sunday afternoon Horse Racing to the mix. This was a very popular activity during the Curling Tournament at Shady's in the beginning of February and has continued to be successful. Please continue to support our gambling opportunities along with Shady's Long Shots great drink and food options.

We would especially like to thank the 25 volunteers who have helped us to host these gambling events this season.

Your time and commitment are greatly appreciated! These volunteers represent the following lakes: Cedar Island, East, Great Northern, Horseshoe, Knaus, Koetter, Long, Park, and Schneider. Let us know if you would like to help and bring representation to your lake. Karla Smetana is looking for 6 – 8 additional people to help with the gambling events next season.







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# <del>-</del>

# Are You a Lake Steward? Would You Like to Be?

### by Richard Gallea, Land Use Committee

Minnesota Lakes and Rivers (MLR), an advocacy group founded in 1993, has launched a Lake Steward Program. MLR is working with many lake associations across the state to promote it, including the Sauk River Chain of Lakes Association (SRCLA).

The first step is to take a 10-question quiz to "Score Your Shore", which covers questions such as:

- fertilizer & pesticide usage
- septic maintenance
- stormwater runoff
- percentage of unmowed shoreline buffer
- aquatic plant management practices

If your responses meet MLR's criteria, you are considered a Lake Steward! After taking the quiz, an SRCLA volunteer will contact you and offer to visit your site to discuss your goals and vision for the property. A site visit is strictly optional and can be declined by the shoreline owners.

Owners that decide to become a Lake Steward are awarded a beautiful sign (see below) that can be displayed at the end of their dock or along their shoreline.

The Chain has many unique types of shoreline, and even if you decide not to become a Lake Steward, you can still protect the aquatic habitat and water quality. I would be happy to talk with you about steps you can take to enhance your shoreline and connect you to helpful resources, including cost-share opportunities and companies that assist with lakescaping projects.

If you have any questions about the Lake Steward program or general lakescape options, please contact me (rigallea@gmail.com) for assistance.

Take the Quiz today!







Page 12



# Flowering Rush Project Report

<del>by B</del>rad Matuska, President

Aquatic invasive species can cause recreational, economic, and ecological damage - changing how we use and enjoy the water of Minnesota. One such species, flowering rush, was discovered on Sauk Lake several years ago. It is actually an attractive decorative plant, but once introduced to a lake or river, its aggressive growth along shoreland can: 1) make it difficult to access the water, 2) overtake and outcompete native plants. potentially lowering biodiversity, and 3) provide unsuitable shelter, food, and nesting habitat for native animals. In the spring of 2022, Stearns County Parks employees discovered a new population of flowering rush 15 miles downstream from Sauk Lake near Melrose. It is spreading downriver, and the SRCLA wants to make sure it doesn't make it to the Chain. The SRCLA designated Brad Matuska to manage an aquatic invasive species control project through the Stearns Coalition of Lake Associations which is being funded by a grant from the MN DNR. The goal of this project is to keep flowering rush from spreading further. The project started in the summer of 2022 with a team from Limnopro Aquatic Science of St. Cloud surveying the location and concentration of flowering rush. However, we were unable to treat these infested areas, because the river was inaccessible due to extraordinary low water levels. We hope to treat these areas in the summer of 2023. Other entities involved in the project include Clarke/SOLitude Aquatic Services, Stearns County Parks, MN DNR, and the Sauk River Watershed District. For questions about this project, please contact Brad Matuska at brad@mississippitopsoils.com.



Flowering Rush (Butomus umbellatus).











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# Website and Social Media Report

<del>by Kersten Thellin, Website Coordinator</del>

Over the winter, the SRCLA took on the task of moving our website (srcl.org) to a more modern development tool with the primary goals of making it easier for our members to get information and complete the annual membership process. We are also using a different online payment processing tool, so you can complete your online membership process with a credit card or you can use the paper form and mail it in with a check if you prefer. With this new approach, we also make it easier for our Administration team to manage, update, and get information posted as efficiently as possible. You'll also notice a refreshed approach to our other social media tools including Facebook and Instagram. You are invited to contribute your images by tagging #saukriverchainoflakes or sending directly to Aaron Schwartz at aarschwartz@gmail.com.

# Greetings and Happy Spring from the Marketing Committee -

—by Susan Antolak, Marketing Committee

We had a great time sponsoring the Catfish Festival this winter! This event has significantly grown over the last couple of years. I hope many of you had a chance to join us at the weigh-in tent. If not, make sure that you plan on joining us in February 2024!

We have anxiously awaited Spring and to see our open water again!

**2023 SRCLA Annual Meeting** - Please join us on Saturday June 10, 2023 @ 9:00am at Shady's Long Shots in Cold Spring.

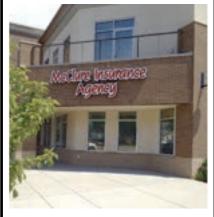
We will also be sponsoring Eden Valley Daze on June 23 – 25, 2023, River Lake Days in Richmond on July 13 – 16, 2023 and Hometown Pride Days in Cold Spring on July 27 – 29, 2023. Please join us in supporting our local community festivals!

SRCLA Online Store – Please make sure that you watch the website and our social media posts for the seasonal online store dates for June and September. We will have a lot of fun clothing, towels, hats, and miscellaneous items to purchase!

We would like to thank all the area businesses that have supported us over the years with membership and advertising! If you own a local business and want information on joining the SRCLA, please check out our website at scrl.org.

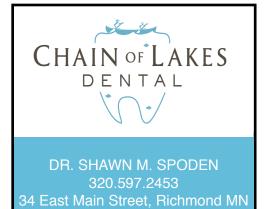
We are also always looking for volunteers to help on our committees. If you are interested in volunteering in any way, please reach out to any one of our board members.

Have a safe summer enjoying our Chain of Lakes!



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# **2022 Water Quality Monitoring Results**

### -by Gary Schnobrich, Water Quality Committee

The 2021 and 2022 water quality sampling seasons were unique. We experienced a season in 2021 of extremely low water levels due to drought followed by a period of extremely highwater levels in the Chain in the early part of 2022 due to major rain events upstream in the Sauk River Watershed. These weather events emphasize the importance of looking at water quality monitoring over a long term as well as looking at seasonal averages as opposed to a single sampling event. Samples in the past have been obtained and analyzed May through September on the Sauk River Chain of Lakes; however, in 2022, the May sampling had to be canceled due to high water levels and safety concerns. It will be interesting to see what effects these events have on water quality in the long-term scheme of things.

Allison Lightfoot, the Environmental Monitoring Manager of the Sauk River Watershed District (SRWD), has compiled the results of the 2022 monitoring season in an excellent report that can be accessed from the Sauk River Chain of Lakes Association web page at https://www.srcl.org and scrolling down to "Latest News" topics. The report contains data from the 2008 to 2022 monitoring sites upstream and downstream of the Sauk River Chain of Lakes and data from the 2010 to 2022 monitoring sites on "Flowage Lakes" (Zumwalde, Krays, and Knaus), "Non-Flowage Lakes" (Horseshoe and Cedar Island), and Schneider Lake which is considered a natural lake. Included in the report is a map of the sampling locations on the Chain, background information to help you understand the importance of the sample parameters to the water quality in the Chain of Lakes, excellent graphics to illustrate the results obtained, and insights as to what effect this data might have on aquatic life and recreation on the Chain of Lakes.

Discussions are underway for additional future monitoring on the Chain and to what extent the SRCLA can aid the SRWD's efforts. One project would attempt to determine the potential nutrient loading that the tributaries entering the lakes have during spring runoff as compared to the loading from the Sauk River as it enters the Chain of Lakes. This would involve sampling a number of creeks that enter the lakes in the spring of the year. Another project would include taking Dissolved Oxygen (DO) and water temperature at the existing sampling locations to establish a water column profile at one-meter intervals. This information might give a picture of the depth at which there is no longer enough DO to support fish. It would also help understand how nutrients that have been deposited over decades in the lake bottom sediments are reintroduced up into the water column again and are contributing to aquatic plant growth and algal scum. A third project would involve taking samples a meter off the lake bottom to determine what the sediment is releasing into the water column. The SRCLA is looking at to what extent we can help the SRWD with these water quality monitoring efforts. We are also looking to add a water monitoring site on Bolfing Lake. This would add another "Natural Lake" to our sampling locations. Although we wouldn't have a 10year history, it would give a good comparison with Schneider Lake. To keep our expenses down, we could eliminate the Zumwalde Lake site. The existing location is shallow and during low water levels it is difficult to get good samples. Another option is to move the Zumwalde Lake sampling location to a deeper location. This option would mean a 7th sampling location would be added at additional expense. These are some of the many decisions the SRCLA will be tasked with 2023. The Sauk River watershed is a very

complex system, and it isn't easy to pinpoint one or two causes that impact our water quality. Our goal is to document as much scientific data to support efforts to improve the water quality in the Sauk River Chain of Lakes. That being said, we as a Board, remain committed to continuing our water quality monitoring program and are exploring new and different ways to continue to understand our water system.

### Spring Highway 22 Road Clean-Up

At the date of the deadline for this article, the highway ditches were under several feet of snow and the forecast was for more to come which is usually the case during high school tournament season. I know in the past Aaron Schwartz has thanked the many wonderful volunteers that helped with the Adopt-A-Highway road clean-up. As the snow melts and the temperatures warm. I will be soliciting the help of SRCLA members to help with the clean-up of the 2 mile stretch of Highway 22. Make no mistake, this does have an immediate impact on water quality in the watershed. Look for dates and time on the Lake Association web page at https://www.srcl.org. I look forward to meeting many of you as we complete this task later this spring.





# Aquatic Plant Management: Part II: Managing Invasive Vegetation —by Amy Kay, SOLitude Lake Management

In Part I of Managing Invasive and Nuisance Vegetation, which can be found in the last edition of *The Chain Link*, the importance of why we manage invasive and nuisance vegetation and the variety of tools available to lake managers was discussed. One of those tools was aquatic herbicides. A selective aquatic herbicide was chosen as the best management strategy for the control of hybrid watermilfoil (HWM) on Horseshoe Lake in the summer of 2022 to support the Sauk River Chain of Lakes Association's (SRCLA) goal of controlling invasive species quickly to keep them from establishing and spreading throughout the Chain.

ProcellaCOR (florpyrauxifen-benzyl), the chosen product, is a selective, systemic aquatic herbicide. In this context, selective refers to a product's tendency to control only the targeted plant(s) (in this case HWM) while having minimal to no impact on anything else. Systemic, refers to its ability to control the entire plant from its leaflets to roots. SOLitude Lake Management (previously Clarke Aquatic Services) recommended ProcellaCOR due to research supporting its ability to selectively control HWM quickly (usually within about two weeks) and that it may provide longer term control (up to three years) without needing to target the entire lake at one time - a treatment strategy commonly referred to as "spot treatments".

Another compelling feature of ProcellaCOR is that it is classified as a "Reduced Risk Pesticide" by the USEPA. This classification means the USEPA considers it to be safer than traditionally approved and used aquatic products.

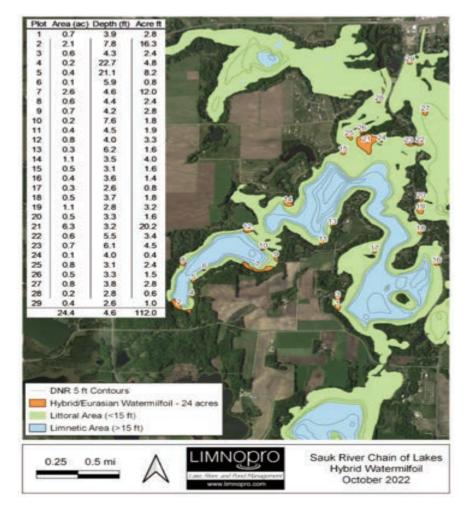
SOLitude Lake Management is a PRO Certified ProcellaCOR Specialist – a required certification to purchase and apply ProcellaCOR. Post-treatment sur-

vey work, performed by Limnopro Aquatic Science, showed excellent control of HWM in the treatment areas while nontarget vegetation (native plants) continued to thrive which means the collective goal of the 2022 project was achieved. Because of the success of these applications, the SRCLA intends on implementing a ProcellaCOR strategy in 2023 to established populations of HWM on Horseshoe Lake that were not managed in 2022.

The sites that will be targeted for control in 2023 can be seen on the pictured map; however, additional survey work will be performed prior to proposed 2023 applications to ensure all established HWM sites are accounted for prior to application and therefore, while likely to be very similar, sites may be modified slightly to include any HWM

that was not identified in the fall of 2022

Applications will only take place once the SRCLA secures a permit from the Minnesota Department of Natural Resources for final proposed 2023 management sites, and information specific to the date of application and sites managed with ProcellaCOR can be found at srcl.org and via posting of the treatment areas. The only water use restriction will be for the irrigation of ornamental plants for 5 days, and turf can be irrigated immediately. All recreational activities including swimming, fishing, boating, etc. can resume immediately following the applications.



Stewards of the Sauk River Chain of Lakes



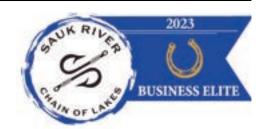




# **SRCLA Membership Levels**

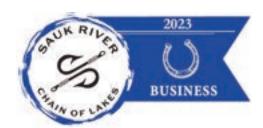














See Page 20 for SRCLA Membership Form







# **NEW MEMBERSHIP OR MEMBERSHIP RENEWAL FORM**



# SAUK RIVER CHAIN OF LAKES ASSOCIATION

### WWW.SRCL.ORG

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Business Name:		
Current Address (street, city, state, zi	ip):	
Lake Property Address (street, city, st	tate, zip):	
Lake you live on:	Home Phone	2:
Email Address1:	Cell Phone1:	
Email Address2:	Cell Phone2:	
ME	MBERSHIP DUES CONTE	RIBUTION
(All Individual/Family Memberships recent Business Member:\$75 (Business name	\$60 Crappie\$80 Walleye ive a SRCL Association Membershi ne included in Membership Listings in the SRCL org	\$100 Catfish\$150 Bass ip Decal, See www.srcl.org for more information.)  Spring and Fall Newsletters.) your website/Facebook in SRCL.org's Business Carousel.)
	Donate additional amount for a spe dentify additional amount into appr	
Walleye Stocking: \$	Weed Control: \$	General Fund: \$
ARE YOU	INTERESTED IN DONAT	ING YOUR TIME?
	(please circle interested area	below)
Invasive Species	Fisheries Weed Control	
Land Use	Water Quality Road Cleanup	
Gambling - Bingo night	Gambling – Meat Raffle	night Board Member

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# <del>-</del>

# **2023 SRCLA Payment Options**

The Sauk River Chain of Lakes Association has spent a lot of time researching membership payment options for 2023 to find the best one that will work well with our website and for our members. So, announcing for this year we are able to make a Credit/Debit Card payment via our website that is safe and secure using the payment vendor called "Stripe".

To use this new payment option, simply click on "Become a Member" in the drop down menu under "Membership" on our home page at srcl.org. Then, choose and click on what membership level you would like for 2023 and select

"Purchase" to fill out your membership and payment information.

### Member levels for 2023

Sunfish-\$40

Crappie-\$60

Walleye- \$80

Catfish- \$100

Bass- \$150

Business- \$75

Business Elite- \$150

If you do not want to sign up online, we will still happily take your payment by check. You can send in a membership form that you are able to download that is found online at the bottom of the "Become a Member" page and mail it in to

us with a check payable to SRCLA.

### Our mailing address is:

**SRCLA** 

PO Box 369

Richmond, MN 56368.

Once we receive your membership, we will send you a "Thank You" letter and your 2023 membership sticker to display on your boat, dock, or fridge.

Any questions or issues with finding or making an online payment, contact Troy at Troy@pierceinsurance.com.

Thank you!

# SRCLA ONLINE STORE • WATCH FOR OPENING JUNE 10-24!

# Hybrid Watermilfoil Spreads to Cedar Island Lake -

-by Dan McEwen, Limnopro Aquatic Science, Inc.

Containing the spread of HWM. The Sauk River Chain of Lakes is now known to be home to at least three different aquatic invasive species (AIS), including curly-leaf pondweed, zebra mussels, and most recently hybrid watermilfoil (Fig. 1).





Fig. 1. Confirmed hybrid watermilfoil collected from Horseshoe Lake on 10/19/2021. Note the plant has 12 leaflets in this case. Genetic tests have shown that a sample of HWM from all around Horseshoe Lake and Cedar Island Lake are the same genotype (i.e., clones). Subsequently, any HWM on the lakes should look very similar to these photographs.

The first hybrid watermilfoil (HWM) was discovered during a routine plant survey by Limnopro during August 2020. The Sauk River Chain of Lakes Association (SRCLA) authorized expanded searches in 2021, and Limnopro found additional plants that had grown into beds across a good part of the northernmost shore in Horseshoe Lake. SRCLA had all known beds of HWM treated by Clarke in 2022 with Limnopro conducting a post treatment survey in July 2022. During that follow up

survey, HWM was discovered to have spread to new areas not only through Horseshoe Lake but also into Cedar Island Lake. Based on estimates, HWM spread from a single plant in 2020, to 15 acres in 2021, and 40 acres in 2022 (Fig. 2). As is often the case with a new AIS infestation, plants are spreading rapidly. New chemical treatments and new surveys are planned for 2023.

What is the problem with HWM? An

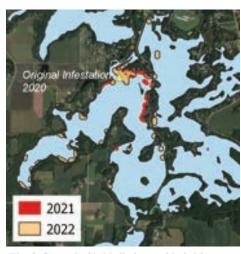


Fig. 2. Spread of initially located hybrid water-milfoil plant (yellow triangle) in 2020 through to 2022. All red areas were chemically treated prior to the 2022 survey.

AIS is a species that has naturalized in parts of the world other than the USA. Unlike most native plants, AIS tend to grow densely and to the surface of the water. This type of growth not only gets in the way of using the lake when trying to navigate through, it also shades the

understory of the lake to prevent native plants from growing. This can create suboptimal habitat for fish and other organisms that live within the lake, as well as create conditions that cause nutrients to be released from bottom of the lake to create algae blooms. Research also has shown that the creation of these poor conditions can lead to declines in property values of homes on lakes with AIS. Average home values on lakes with invasive watermilfoils are less than those without the plants, all other things being equal.

What's so hybrid about hybrid watermilfoil? In my previous life, I taught university biology courses. One of the very first lessons learned by incoming students is the definition of the primary unit of life – the species. A species by definition is a life unit that can reproduce and give birth to viable (or fertile at maturity) offspring. A species is referred to with both a common name and scientific name. For example, "humans" are known as "Homo sapiens"; "dogs" are also known as "Canis domesticus", and so on. Scientific names are given in Latin language and as such always italicized. While in English speaking places, we call the thing we recognize as a dog a "dog", in Spanish speaking places, that same animal is called "perra". No matter where we are in the world; however, scientists all know that animal is called domesticus. The first part of the scien-





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### Hybrid Watermilfoil continued from page 22

scientists all know that this animal is called Canis domesticus. The first part of the scientific name is capitalized and is referred to as the "genus," and the last part of the name is the "species." A genus can have multiple species. For example, while Panthera leo is the thing we call "lion", Panthera tigris is what we know as a "tiger". We would probably agree that lions and tigers are different looking species, but they are more similar to one another than say a lion and dog. We say the lion and tiger are in the same genus but different species. The scientific name then also has built into it a sort of categorization scheme.

Well, here is where things get interesting. Sometimes different species can mate with one another and produce offspring. Yes, Napoleon Dynamite, there is such a thing as a "liger"! A liger is the offspring of a male lion and female tiger (Fig. 3). When this can happen, we call the thing with two different parent species a "hybrid." Hybrids are designated with the Latin name using the genus and a cross of the two species. The liger then is *Pathera leo x tigris*. The vast majority of hybrids produced in nature and artificially cannot survive for long periods of time or enough generations to become a new species. They are weaker, in an evolutionary sense, than either of their parent species. Rarely, a species can have characteristics that make it stronger than either parent species by inheriting the best of both, a condition scientists refer to as "hybrid vigor."



Fig. 3. A liger is a hybrid species produced from a cross between a lion and tiger.

Well, let's get to the point. As the name implies, HWM (Myriophylum spicatum x sibericum) is a hybrid of two different watermilfoil species, the native northern watermilfoil (Myriophyllum sibericum) and the invasive Eurasian watermilfoil (Myriophyllum spicatum). Minnesota is known to have six different native watermilfoils (genus Myriophylum) with the most common being northern watermilfoil along with the nonnative Eurasian watermilfoil (Fig. 4). Eurasian watermilfoil (EWM) is a regulated AIS in Minnesota, first discovered at Lake Minnetonka in 1987. Since its initial discovery, its been found in 397 other lakes according to the most recent MN Infested Waters List. This gives an approximate infestation rate of 11 new lakes per year. Today EWM is an AIS and millions of dollars have been spent on trying to control it, but HWM is probably worse! A body of research indicates that HWM can be

even more invasive than EWM, showing faster rates of growth and increased resistance to chemical control when compared with EWM.

HWM and genotypes. Plant reproduc-

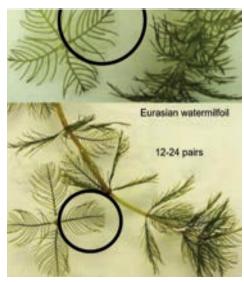


Fig. 4. Morphology of native northern watermilfoil (top) compared with Eurasian watermilfoil (bottom). No known pure strain Eurasian watermilfoil has been found on Sauk River Chain. All of the hybrid watermilfoil on Sauk River Chain has had 12-13 leaflet pairs.

tion is a little different than what most of us are probably accustomed to thinking about. Any human baby is a result of sexual union of mother and father, and the traits of the offspring are a mixture of dad and mom. With the exception of identical twins, every person on the planet has their own unique set of traits defined by their genes. Plants, on the other hand, commonly reproduce by both sexual and nonsexual (typically referred to as vegetative) means. Some

Hybrid Watermilfoil continued on page 24



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### Hybrid Watermilfoil continued from page 23

nonsexual (typically referred to as vegetative) means. Some species primarily reproduce vegetatively. This nonsexual, vegetative reproduction provides what is analogous to giving birth to identical twins in humans. In plants, we tend to call these "clones". So, an entire population of plants can be parented from a single offspring and have the same exact genetic makeup and therefore traits. Both EWM and HWM, while able to reproduce sexually, principally reproduce through cloning, which happens by releasing fragments during parts of the year. The advantage of nonsexual reproduction is that it can happen much faster than sexual reproduction. The primary mechanism for cloning in HWM is a process called "autofragmentation" where it purposefully sheds off parts of itself to have fragments float to new areas of the lake to start new plants. Combine autofragmentation with the chopping up of plants as a boat motor runs over them, and you have a recipe for very fast expansions.

These clones in research space are called "genotypes", and scientists are learning much about different genotypes in lakes. Research indicates that different genotypes of HWM can have significantly different growth rates and resistance to herbicide treatments. The SRCLA had genetic work on samples collected in 2021 and found that they are all the same genotype and were a genotype unique to this Chain. This suggests that there was likely a single introduction that led to the spread of all of the plants found so far. This suggests that preventing new introductions of EWM or HWM to SRCL is still important. Management efforts to date are focused on the single genotype present in the lake system. If new strains are introduced that have more vigor, and old strains are controlled, the new strains can quickly outgrow the old strains.

What can you do? Learn to identify the watermilfoils in your lake. While the SRCLA will continue to provide professional monitoring services, much more area can be covered if you can just check your nearshore areas. First, be able to tell watermilfoils from lookalikes including coontail (Fig. 5). Second, be able to distinguish between native watermilfoils, HWM, and EWM. Often times, a close up photograph of

suspect plants sent to the SRCLA is enough to rule out new infestations. Finally, continue to support the efforts of the SRCLA to keep the Chain of Lakes in as good of shape as is humanly possible.



Fig. 5. Coontail is a common native plant often misidentified with watermilfoils. Note that the leaves are not in whorls of four and that the tips of coontail leaves are forked.













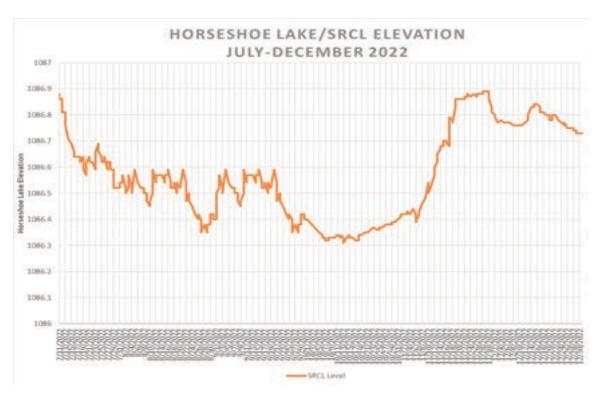


# **Lake Level Monitoring Report**

### -by Steve Weeres, AIS Awareness & Prevention Committee

Electronic monitoring of the SRCL level based on the LAKESCOUT data buoy (www.winrectech.com) was installed in July 2022 and has provided continuous readings of lake level since

then. The link to portal to view the realtime elevation is available on SRCL.org. The elevation measurement is updated every 12 hours. With electronic monitoring, elevation data can be measured year-round. The elevation measurements from July through December 2022 are available on SRCL.org and are shown below.



With real-time lake level measurements in place and available, we can have more exact discussions of water level. From the 2022 data, the average elevation for the time period was 1086.6 feet, and the deviation was +/- 0.3 feet. We can put the measured level in context by reviewing the available data from the DNR LakeFinder database. The Ordinary High Water Level (OHWL) for the SRCL is 1086.5 feet. This level would be the determined natural boundary between the terrestrial landscape and the aquatic landscape. If the OHWL is considered the "normal" level, then the we can say that the SRCL average level in the second half of 2022 was within 0.1 feet of normal.

Reviewing occurrences of high water, there have been four known occurrences over 1089.5 feet in the past 25 years. This level is 3 feet higher than the current average. These higher levels oc-

curred in 1997, 2001, 2013, and 2022. To see the impact of this level on your property, simply get a yard stick and place it where the water meets your shoreline. Not only should we strive to manage our shoreline for normal levels, we should act over time to minimize the impact of high water occurrences through shoreline improvements.

These high water occurrences are driven primarily by Sauk River stream flow due to excessive precipitation events or snow melt in the upper Sauk River Watershed. The SRCL receives stream flow from 740 square miles of watershed area to the northwest. We can combine the ability to follow the SRCL level real-time with knowledge of occurrences of extreme precipitation events in the upper watershed to get advance knowledge of high-water levels. The SRCLA is working with the Sauk River Watershed District and the St.

Cloud State Department of Atmospheric and Hydrologic Sciences to evaluate the feasibility of models that can allow us to predict SRCL levels based on precipitation events in the upper watershed. These models also allow us to track the effect of improvements made in the drainage landscape in the upper watershed.

Electronic monitoring of lake level provides short term benefits of real-time lake level and potential changes. Plus, it provides a historical database that will support both the management of the lake and surrounding landscape.

SRCL Lake Elevation Portal: https://www.srcl.org/water-level-horse-shoe.

If you have any questions or comments, please contact the author at steveSRCLB@gmail.com.

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# **Fisheries Report**

### <del>by Ma</del>tt Noska, Fisheries Committee

2022 was quite the year as it relates to the fishery. We started out the year with a historic flood that was only preceded by the 1950's. However, our DNR partners continued to focus on our fishery throughout the year, as you will see below from Joe Stewig. We have seen success with the Quality Bluegill Initiative and our Walleye natural reproduction rates. We are hoping that our partnership with the DNR continues to foster new ideas and initiatives to keep our fishery strong for our future generations. There is still work being done to encourage the State of Minnesota to pursue a state-wide Walleye limit reduction. This would have a dramatic impact on Walleye fisheries across the state, including the Chain. We also have been in conversations with the DNR to pursue a Crappie initiative that matches the one we set in place on the Chain a few years ago for our Bluegills. The SRCL Board will continue to monitor these potential regulation changes and communicate with the membership along the way.

Happy Fishing everyone, Matt Noska Fisheries

# Sauk River Chain of Lakes (SRCL) 2022 Lake Summary

In 2021, Sauk Rapids Area Fisheries staff conducted lake surveys throughout

the Sauk River Chain of Lakes (SRCL). Sampling consisted of spring targeted Bluegill/Black Crappie surveys on Horseshoe and Cedar Island lakes and summer gill nets (all lakes). The SRCL is surveyed every three years with gill nets and every six years with trap nets and bass electrofishing. In 2021, fish were sampled with gill nets only, and in 2024, the survey will consist of gill nets, trap nets and bass electrofishing. Spring targeted Bluegill/Black Crappie assessments will be conducted every 4 -5 years, and Young-of-the-Year (YOY) Walleve are sampled annually in October.

Sampling	Frequency (yrs)	Next Survey
Summer Gill Nets	3	2024
Summer Trap Nets	6	2024
Spring LMB/SMB	6	2024
Spring BLC/BLG	4 – 5	2025
Fall Walleye	annual	2022

The Walleye population in the SRCL had been sustained through fry stocking Horseshoe (275,000 – 675,000 fry) and Cedar Island (755,000 – 1,355,000 fry) lakes every other year since 2001 and

prior to that through fingerling stocking. The SRCLA has also done some supplemental stocking as well (100,000 fry each year we stock). However, in 2015 during a routine fall young-of-

year (YOY) Walleye assessment, we noticed some Walleye that were too big (9-11 inches) to be YOY. Upon ageing a sub-sample of these fish, we verified that they were from the 2014-year class

Fisheries Report continued on page 28







# Fisheries Report continued from page 27

the 2014-year class a year in which we did not stock Walleye. We have always assumed that some natural reproduction of Walleye was occurring within the Chain, but to what extent was unknown. After 2015, we started conducting an-

nual fall YOY Walleye assessments in order to document natural reproduction. Since 2015, we have documented excellent natural reproduction in most years (Figure 1). Many of these catches rival the catches during stocked years. For

perspective, we consider anything between 25 and 50 YOY/hr to be successful. After 2017, DNR discontinued stocking, and we asked the SRCLA to cease stocking as well.

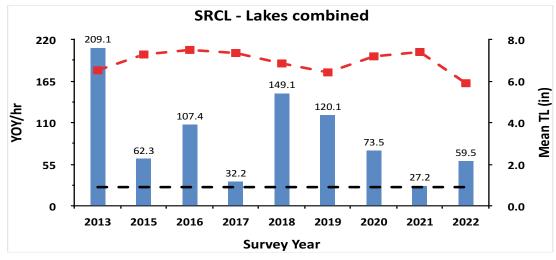


Figure 1. Fall young-of-the-year (YOY) Walleye catch rates from 2013 – 2022. Blue bars are stocked years and black bars are non-stocked years. The red dashed line is the average size of YOY Walleye.

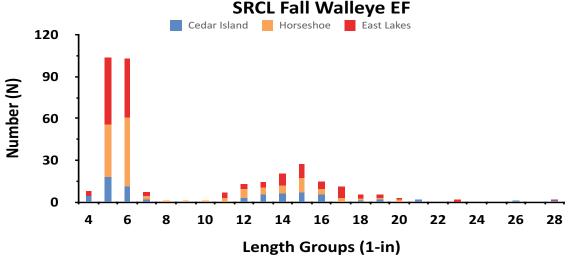


Figure 2. Length frequency of Walleye caught from the Sauk River Chain of Lakes during October 2022.





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We sampled 352 Walleye in October 2022 of which 224 were YOY. YOY Walleye ranged in length from 4.6-8.5 inches with an average length of 6.0 inches (Figure 2). One hundred and twenty-eight age-1 or older Walleye were sampled, and their lengths ranged from 9.3-28.5 inches with an average length of 15.6 inches (Figure 2).

This brings us back to our 2021 gill net survey. The catch in 2021 (5.3/net) was the highest on record and slightly higher than 2018 (4.6/net; Figure 3). One hundred eighty-three Walleye were sampled and ranged in length from 9-26.7 inches with an average length and weight of 16 inches and 1.5 pounds (Figure 4). Fifty-nine percent of the

Walleye caught were longer than 15 inches and 12% were longer than 20 inches. Thirteen-year classes were sampled in 2021 dominated by age-2 and age-3 fish which made up 45% of the catch. All told, 89% of the Walleye sampled were from naturally reproduced years!!!

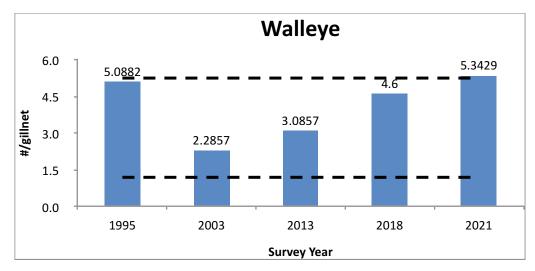


Figure 3. Historical gill net catch rates of Walleye (lakes combined) for the Sauk River Chain of Lakes (1995 – 2021). Dashed lines indicate the upper and lower level of what we would expect to see for lakes similar to the Sauk Chain.

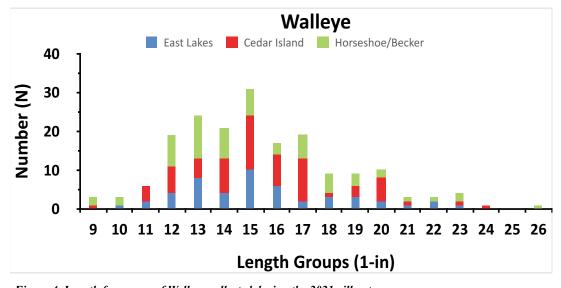


Figure 4. Length frequency of Walleye collected during the 2021 gill net survey.

To build on what we've observed during our fall YOY Walleye shocking (2015 – present) and our 2018 and 2021 gill net surveys, we have put a hold on all Walleye stocking and have ramped up our sampling effort on the SRCL to every three years to better monitor

Walleye recruitment. We will also continue to monitor Walleye natural reproduction through annual fall electrofishing and plan any future stocking accordingly. Stocking is not off the table, but naturally reproduced fish typically have a genetic advantage

over stocked fish. Based on our surveys, no Walleye stocking is warranted or needed at this time.

Happy Angling!!!
Joe Stewig,
MN DNR Area Fisheries Mangager



# **Catfish Fest**

### by The Richmond Firefighter's Relief Association



Our 2nd Annual Catfish Fest was a great success, all due to the sponsors and everyone that participated in the event. Thanks to everyone that helped with the event!

The catfish samples served by Channel Marine were excellent! Plus having the educational part of showing how to clean and prep the Catfish was a huge plus! A special thank you to Chain of Lakes Fire Dept for your support on the ice again this year!

We weighed more catfish than last year. This year we weighed 164 catfish, compared to last year we weighed-in 75 catfish. Prizes are awarded to the top 50 fish by weight. This year's 50th place

fish weighed in at 5.86lbs, the previous year's respective weight was 2.7lbs. The first-place fish this year weighed in at 15.28lbs, last year was 9.56lbs. A lot more fish were brought in this year. Hope everyone had an exciting time fishing!!

We had more people fishing in the event this year. We sold 428 more fishing tickets than last year, for a total of 678 tickets sold this year. We had a tremendous turnout this year with people gathering at the weigh-in to sample fish, participate in the catfish cleaning, and talk with the representatives from the Sauk River Chain of Lakes Association. These are the sponsors that helped make this such a huge success:

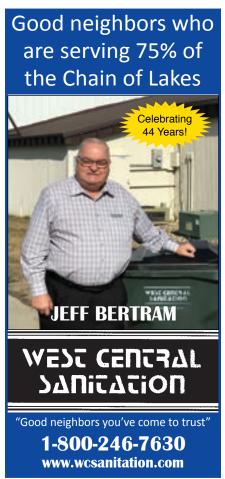
Custom Wheel Outlet (CWO), Smart'n Construction, Promotional Resources, Firefest, Schwieters, Brinky's Liquor, Electrical Installers, Lakes Metal Works, Sauk River Chain of Lakes Association, Main Street General, Premier Real Estate Services, Project One Construction, Toms Windshield Repair, Falcon Bank, SCHEELS, Renegade Truck

Equipment INC, Gilk Plumbing and Heating & A/c LLC, Sugar Print, Midsota Painting, Sherwin-Williams, R&D Concrete, Arctic Anchor, North Kingston Repairs and Minnesota Truck Headquarters.

The Richmond Firefighter's Relief Association wants to send out a huge Thank You to everyone that participated in the event! The proceeds from this year's event are going towards the purchase of battery-powered auto extrication tools for the Richmond Fire Dept. Please Visit www.catfishfestonthechain.com for more information on the event.







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# **Safety Buoy Report**

# by Brad Matuska, President

In late 2019, the SRCLA conducted a landowner survey, at the direction of the Stearns County Sheriff's Office (SCSO), to assess the need of additional no wake zones along the Chain. The areas in question were identified to be at the confluence of Krays and Great Northern, Great Northern and Zumwalde, and the entry to Kron's Bay in the southwest corner of Horseshoe Lake. With the majority of respondents in favor of additional no wake zones,

the SCSO then needed to conduct a boat survey in these areas in order to create a new County ordinance that would establish new no wake zones. Then, COVID hit, and it put a stop to the process. The SRCLA recently reengaged the SCSO again about the process, and it was suggested to establish caution buoys, as an experiment, only at the confluence of Krays and Great Northern instead of any new no wake zones. The SRCLA agreed with this suggestion and

will place a caution buoy on the Great Northern side and a caution buoy on the Krays side. While low boat speed will not be enforceable by the SCSO in this area, the goal will be to encourage boater safety in a less restrictive way. Please share your experience with this new approach by emailing Brad Matuska at brad@mississippitopsoils.com.

# Shorelines – Where Will Yours Be in 10 Years?

-by Nick Neuman, Stearns County Environmental Services

The most common issue shoreland property owners face is shoreline bank stabilization. Reduced native vegetation at the water's edge and increased runoff from the property, combined with wave action from boat traffic, often leads to shoreline stabilization issues.

The good news is that these situations can be remedied. The other news is that it often requires a change in shoreline stewardship.

This article will outline a few strategies and practices to improve your shoreline so that it can last for the years ahead rather than washing away your property.

# Assess & Establish Native Vegetation – No Permit Needed

Many unstable shoreline areas arise where the native plants have been cut, mowed, or removed and replaced with non-native plants & shallow root systems (lawn grass is the most common). Buffers of native shrubs, native grasses, and native flowers have extensive root systems that stabilize the soil, improve habitat, and improve water infiltration to ensure long-term bank stability. Note – Many people like to plant hostas & other ornamental plants. These decorative plants do not provide adequate root mass for effective stabilization. Native alternatives function better and



Shoreline where vegetation has been removed from slope and continued disturbance is leading to erosion on the slope and undercutting at the toe. Note the tree cut at the water's edge – if left to fall into the water, it would have provided shore protection. Also note the adjacent undisturbed area – no erosion concern there.

look just as nice.

Trees also play a vital role. Shorelines with good tree root systems and cover provide very robust bank protection. Shorelines continue to lose more trees than are established. Even if you do not have shoreline problems now, planting trees is one of the best things you can do to protect shoreline areas. Another note - many people call and ask about trees falling in the water. The best thing you can do is to leave the tree in the water. It breaks wave action from hitting the shoreline. It may even become your new favorite fishing spot as it provides excellent habitat for a variety of fish species.



Shorelines continued on page 32



### Shorelines continued from page 31



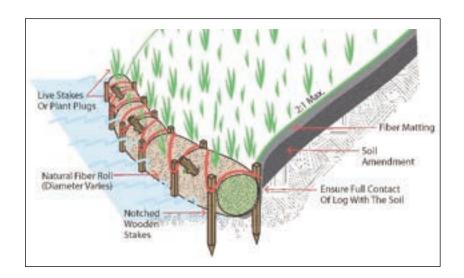
Shoreline with no native vegetation & steep bank. Re-grading & removal of material to make the slope more gradual and establishing native vegetation will improve shoreline stability. Rock can remain at the toe of the bank.



Shoreline with excellent native vegetation established above a rock toe on a large lake with significant wave action. The shoreline is very stable, looks good, and provides great habitat for birds and butterflies.

# Bioengineering With Fiber Products - No Permit Needed

Natural, biodegradable fiber rolls, used in conjunction with native plantings, are used as the next level of shoreline protection. Coconut fiber and wood fiber logs are the most common here and are often known as coir logs or biologs. They are staked along the shoreline with minor grading for a more stable bank and provide protection to avoid undercutting. This practice works well, especially in tandem with sedges (planted as plugs) and/or woody vegetation like dogwood or willow (often planted as live stakes).





Eroding bank. Notice the lawn grass mowed up to the edge and the steep drop at the bank. Undercutting is very common in these situations. Regrading to a gentler slope & coir log is a good stabilization choice in this situation.



Regrading completed, coir log in place, erosion control blanket down. Now it is time for plants. Hundreds of native flowers, grasses, sedges, shrubs, and trees are options here – including low-growing plants. Notice how access is easier and the view can be improved.

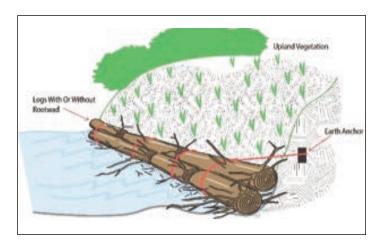




### Bioengineering with Trees - No Permit Needed

For more intense areas of shoreline erosion, tree revetments and root wad revetments can be used very successfully. Here, tree logs are anchored at the bank and tied into the slope. This practice maintains the visual integrity of natural shorelines, can be very cost-effective if trees are supplied locally, and provides excellent habitat for fish and other wildlife. This practice occurs naturally when

trees fall over into the water - protecting the shoreline from wave action and allowing more plants to grow and take advantage of the sunlight now hitting the bank.

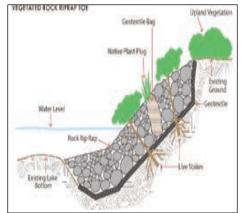




# **Rock Riprap with Native Vegetation** - Permit & Site Assessment Required with Stearns County

Historically, many areas have used rock for erosion control along shorelines. Often, more rock has been utilized than necessary - especially on smaller bodies of water. Excessive rock dramatically changes the shoreline dynamics, reduces persistence vegetation, and drastically changes

shoreline aesthetics. Rock riprap can be utilized in conjunction with the above methods to help achieve a stable shoreline, but the appropriate quantity of rock will likely be less than people expect. You'll need to contact Stearns County for a site assessment and a permit to determine if rock above the ordinary high water level (OHWL) is going to be part of the project







Note the vegetation in and around the rock. Vegetation cannot be removed to place rock. This is the case below and above the OHWL. Vegetation will help hold rock in place, especially in areas that are steep or prone to ice action.

Contact the Environmental Services office for more resources about shoreline practices, erosion control, permit requirements, and no-cost site visits to help you evaluate shoreline options.



The Sauk River Chain of Lakes Association is in Photos needed NEED of photographs of our beloved Chain of

Email your photographs to noska76@aol.com





# Lawn Rangers No More: A Lake Yard Goes Native



When Richard and Mary Gallea bought their home on Great Northern Lake in 2004, they pictured restful weekends on the water, a respite from their workaday lives in the city. What they didn't envision was this: sitting for 10 hours on a riding mower each week to keep their mammoth yard trimmed. While the home's previous owners had done so, Richard said it "was a non-starter" for them

These days, it takes 40 minutes per week to mow the small, neat lawn around the Gallea's front door and side yard. Yet their motivation hasn't just been a downsized yard, but what they've planted to replace it: a breeze-stirred meadow of native grasses that waves bright with orange, blue, red and yellow wildflowers. Where turf grass once dominated, the ever-changing pallet of a miniature Midwest prairie now holds sway.

"We're in awe of all the plants; it's so calming and beautiful," said Mary Gal-

lea. "There are monarch butterflies, and sometimes so many bees you can feel their vibration in your chest. Firefly season is my favorite time of year; you see hundreds from our dock.

At first, finding ways to escape the "lawn



ranger" lifestyle wasn't the Gallea's top priority. The more urgent problem was a rotted, sagging retaining wall made of old railroad ties. Because the wall stood on a steep bank between the house and lake, its removal required a permit from the Stearns County Environmental Services Department. Railroad ties are now discouraged for home landscaping as the creosote they're treated with has been ruled a carcinogen by the U.S Environmental Protection Agency.

"We went to present our case for the permit, and Greg Berg from the Stearns County Soil and Water Conservation District (SWCD) said, 'Have you ever thought of native landscaping?' We didn't think that was an option," Richard said. As it turned out, there were cash incentives that made this option appealing. SWCD proposed a comprehensive project to remove the retaining wall, grade and restore the slope, and plant native vegetation. Later, the Galleas expanded the planting to cover even more of their property. The project's total cost was \$23,710, yet thanks to State of Minnesota funds the Gallea's share was \$5,910.



To prepare the site, contractors were careful to prevent erosion where the hill-side drops to the lake. (That's why the railroad ties were embedded there in the first place.) Rather than scrape off the sod, they killed the grass and dug in hundreds of plugs - starter native flowers and prairie grasses. The steep section of bank with old railroad ties was sculpted to a more gradual grade, and the contractor added a small set of steps to allow access to the lake and dock.

They soon found out that compared to unrolling blankets of new sod, a prairie yard takes shape on its own schedule. For the first year or two, it can look sparse even scruffy.

That's because young praire plants and grasses first spend their energy on deep roots that may plunge 6 to 12 feet deep in search of moisture. It's an insurance policy for survival that evolved on the

drought-prone grasslands of the Midwest. Just as the plants had to master their new home, so too did the Galleas have to master their new prairie.

Eager to make their prairie thrive, the Galleas gave it too much irrigation the first year. The water-thirsty weeds loved that and almost crowded out the watersipping natives. Once they cut back on sprinkling, the prairie took charge. There's little maintenance now except to pull thistle or quaking aspen seedlings in spring. "Without a trained eye, you don't know what's a weed and what's not," said Richard. "We had the experts come out and help us with weed management." This ensured that native plants weren't mistakenly plucked out in the process. These days, when Richard has to irrigate (2021 was a droughty summer) he does so with nutrient rich, "magic fish poop water" pumped straight from the lake. This spares his household well and the aquifer from which it draws.

While the prairie grows lush and thick, it's easy to navigate on mowed trails and paths with brick pavers that lead to the waterfront. The Gallea's spacious dock and boat overlooks a previously sterile rip-rap shoreline now gone native with overhanging grasses. Meanwhile, in front of their home, a small, civilized patch of grass proves that yards still have their place. Except for one big difference: while a grass yard always sings the same tune, a prairie yard riffs in a different key from season to season.

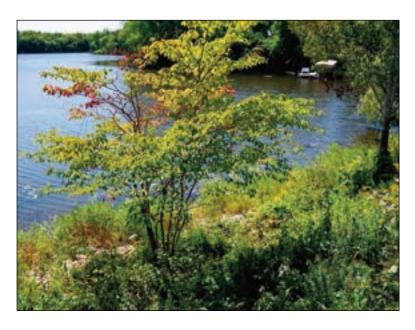
"Not everything comes on at once; different plants assert themselves, said Mary. "One season it may be monarda (bee balm) and the next purple coneflower or Black-eyed Susans. That's the beauty."

Courtesy of the Midwest Glacial Lakes Partnership













# Sauk River Watershed District Management Plan by Allison Lightfoot, SRWD Environmental Monitoring Manager

The mission of the Sauk River Watershed District (SRWD), which has legal boundaries that surround the river's headwaters at Lake Osakis to its confluence with the Mississippi River at St Cloud, is to, "Apply our unique abilities and authorities in ways that protect and enhance our watershed's resources for today and tomorrow." To synthesize the work of water quality and resource protection across the numerous state and local partners that reside within the watershed, SRWD has developed a Comprehensive Watershed Management Plan (CWMP). The CWMP is a partnership of the Sauk River Watershed District, Stearns County and the Stearns County Soil and Water Conservation District (SWCD), Todd County and the Todd SWCD, Douglas County and the Douglas SWCD, and Pope County and the Pope SWCD. Working together, these entities developed the CWMP to address a wide range of land and water resources within the Sauk River Watershed. The plan summarizes existing scientific data regarding the water resources within the watershed, and proposes implementation projects, potential regulatory actions, data collection needs, and the creation of a watershed wide targeted civic engagement and outreach program. The plan states quantifiable goals for the partners, with a vision statement of, "A resilient landscape that balances a healthy ecosystem with a vibrant econ-

omy for generations to come". To access the Sauk River Watershed District Comprehensive Water Management Plan: https://srwdmn.org/wp-content/uploads/2021/10/2021.08.31-Sauk-River-CWMP-FINAL-with-Bookmarks\_reduce d.pdf.

The CWMP identifies 10 subwatersheds/management districts within the Sauk River Watershed District as a whole, with high priority assigned to the Sauk River Chain of Lakes (SRCL) Management District. The conditions and water quality of the SRCL is highly influenced by the Sauk River, which drains 760 square miles of watershed upstream, and is the source of 85% of the nutrient loading to these lakes. Due to the impact that the Sauk River has on the Chain of Lakes system, the Sauk River inlet to the Chain near the city of Richmond is of high priority to SRWD's long term monitoring plan to track changes in concentration of sediment and nutrients entering the Chain system. In addition, the Sauk River Chain of Lakes has a secondary headwater to the south, and is referred to as the Eden Valley Creek Chain of Lakes. This area includes Eden Lake, Vails Lake, North Browns Lake, and Long Lake. These lakes do not presently meet water quality standards and are listed as impaired by the Minnesota Pollution Control Agency. Since they flow into the SRCL entering at Horseshoe Lake (south) via Long Lake Creek, they

also contribute additional nutrients to the system.

The SRWD performs intensive lake monitoring on priority lakes throughout the watershed on a 5-year rotation. Lake surface water quality samples are collected, as well as a lake depth profile for temperature and oxygen concentrations. If the depth profile reveals marked differences between the oxygen content near the surface and the lake bottom, additional lake bottom samples are taken and assessed for water quality. The SRWD will be performing intensive lake monitoring at Eden Lake, Vails Lake, North Browns Lake, Long Lake, as well as Goodners Lake throughout 2023. The 2024 lake rotation schedule will take place in the Sauk River Chain of Lakes, with potential sampling locations in Cedar Island, Horseshoe Lake, Great Northern Lake, Zumwalde Lake, Krays Lake, Knaus Lake, Schneider Lake, and Bolfing Lake. This intensive monitoring process goes a step beyond the citizen lake monitoring performed by the Sauk River Chain of Lakes Association and will help create a snapshot of conditions for the 2024 year, as well as aid in tracking long term changes in the dynamic chain system





Tired of Weeds in the Chain? Stop Fertilizing Your Lawn!

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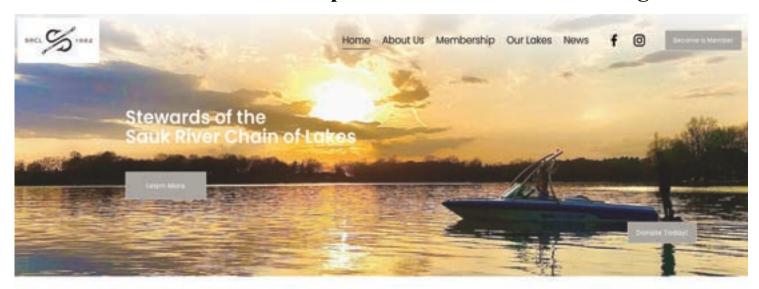




# Sauk River Chain of Lakes Association Vision

To be a passionate group of volunteers that strive to be good stewards of the Sauk River Chain of Lakes by working with all of its stakeholders to preserve and protect water quality, wildlife, and lake life while also promoting improvements through learning, education, and assistance.

# Check out our new updated website at www.srcl.org!







It's a MN Law!

Docks & Boat Lifts must
be out of the water at least
21 days before putting in
another body of water.







# MEET AT THE HIGHWAY 22 BOAT LAUNCH

We will supply safety vests and trash poles

\*Weather permitting— if a change needs to be made we will alert participants via Facebook.

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# **WE WANT YOU TO JOIN OUR TEAM!**

The Sauk River Chain of Lakes Association Board of Directors is looking for energetic, passionate people to:

- Influence decisions impacting the Chain of Lakes
- Build community and local government partnerships
- Act as a catalyst for improving the overall water quality
- Serve as an ambassador for the lake system we all love

# Our expectations are simple — Sauk River Chain of Lakes Association Board Members must:

- Attend monthly board meetings
- Contribute to newsletters
- Actively lead a committee such as Marketing, Community Outreach, Fisheries, Charitable Gambling, Aquatic Invasive Species, Land Use, Water Quality, Road Clean-Up, or Local Business Partnerships etc.
- Represent the Sauk River Chain of Lakes Association Board at occasional external events
- Partner with peers such as the Minnesota Department of Natural Resources, Sauk River Watershed District, Stearns County Government Representatives, etc



If you believe you can add value to the Chain of Lakes and you would like to be an active participant with our group, we have a volunteer opportunity that you could fill. In particular, we are currently looking for charitable gambling and roadside/bridge clean-up help. Please reach out to SRCLA President Brad Matuska at brad@mississippitopsoils.com to volunteer. We look forward to hearing from you!



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