

LAKE SARAH IMPROVEMENT ASSOCIATION



Spring on Lake Sarah

LSIA Spring 2023 Newsletter

Issue #80



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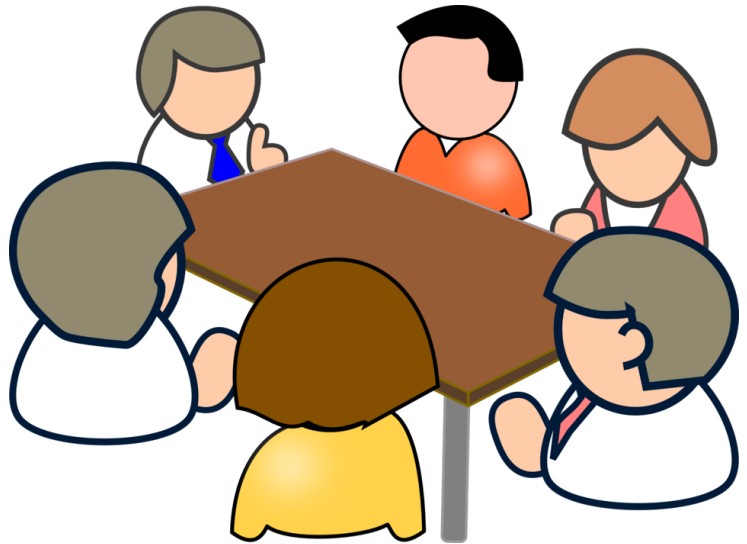
Upcoming Dates/Events:

- Spring General Membership Meeting - **April 24th**
- Boat Parade - **July 4th**
- Summer General Membership Meeting & Ice Cream Social - **July 17th**

Spring Meeting Agenda

Please come join us **April 24** for the LSIA general membership spring meeting. The meeting will be held at the **City of Independence City Hall** at **7pm**. During the meeting we will be covering an overview of the lake plan for the year (water quality, treatment, fishery, etc.). In addition, we will leave 15 minutes for general Q&A.

We are looking forward to sharing these details with you and are always very interested to hear feedback from our lake community.



See you there!

2023 Board Member Update

We have a number of new members and new appointments on the LSIA board this year. This is a combination of normal rotations as well as a few individuals who have reached the term limit of their respective LSIA board seats. We are excited to have new individuals and perspectives on the board but will certainly miss the strong leadership and commitment of the individuals rolling off.

More specifically, we would be remiss not to take a moment to call out the wonderful leadership that a few key individuals have contributed:

Kevin Horn - Kevin has acted as LSIA Board President for the better part of the past decade. Under Kevin's leadership our lake has experienced tremendous improvements in water quality, fishery, reduction of invasive species as well as dramatically improved partnerships with municipal and government agencies such as the city of Greenfield, the watershed district and numerous DNR offices. In addition Kevin's leadership along with support and partnership from other key board members has positioned us well to receive regular state grant monies and support for lake improvement initiatives. Kevin

has been a strong and consistent voice for our lake community and will certainly be missed.

Anne Horn - Anne has also served for the better part of the last 10 years as the Director of Community Relations. Anne's work has built a remarkable sense of community to our lake and has been the primary force behind a number of the great events we love such as the summer picnic and boat parades. Anne's abundant energy has helped establish so many of the things we appreciate about our lake sarah culture such as the newsletter and directory and she has fueled critically important work such as the membership drive. We have enjoyed the time she has spent talking with long time residents to help produce meaningful and heart warming newsletter stories that are not only entertaining but an important part of our lake's history. Hers are big shoes to fill.

Thank you Kevin & Anne

Below are the current LSIA Board Members and the lengths of their terms:

Title (term exp.)	Name	Committee Assignments
PRESIDENT (2023)	Scott Beaupre	Community Relations
VICE PRES. (2024)	Andy Sorensen	Water Quality / AIS
SECRETARY (2024)	Lona Scandrett	Communications
TREASURER (2024)	Jon Arneson	Navigation/Water level
DIRECTOR (2023)	Bill Scandrett	Communications
DIRECTOR (2023)	Andy Althausen	Water Quality/AIS
DIRECTOR (2023)	Mike Malone	Finance
DIRECTOR (2024)	Mark Klein	Water Quality / AIS
DIRECTOR (2023)	Steve Harrington	Fishery
DIRECTOR (2024)	Steve Balinski	Navigation/Water level
DIRECTOR (2024)	Stephen Kaufman	Membership / Directory

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2023 Membership Drive

The annual Membership Dues will once again be only \$35.00 The membership dues help support a number of projects including our 2 annual meetings, our neighborhood directory and a number of community events. There is a membership form included with this newsletter.

Please complete the form (including your preferred email) and mail it along with your tax-deductible donation to the address listed. If you prefer, there is an option to pay your dues, lake treatment donation and walleye donation via PayPal on the lakesarah.com website. However, we prefer you mail us a check rather than use PayPal as they charge us transaction fees and the completed form allows us to be sure we have accurate information in our database.

[Click here to access the Membership Form](#)

Lake Treatment Donation

The estimated cost to treat the invasive weeds is around \$36,000, which is consistent with the amount spent the last two years. We continue to get some financial support from Three Rivers Park District and Pioneer-Sarah Creek Watershed Management Commission. We have applied for some possible grant money and recent indications from the DNR are positive for some reimbursement post treatment. In order to continue the treatment and improve the quality of our lake we need your continued financial support.

We are again asking all lakeshore residents and dock owners to donate \$150.00 The recommended contribution will remain the same for 2021 even though we may treat less CLP acreage than past years. Why? First, treatment costs have continued to rise. Secondly, recent findings indicate we may be able to treat more acreage for EWM. Additionally, the state has reduced funding and has not been issuing as much grant money as they did in years past. Finally, only approximately 110 out of the 170 lakeshore residents donate. Sad but true... We all love this lake and everyone benefits when the lake is clean and weeds are controlled. Not only is it more enjoyable, a healthy lake adds to the value of your property!

Take the Pledge !!!

Reminder to participate in the Hennepin County sponsored educational program to protect lakes and help stop the spread of aquatic invasive species (AIS). Visit lakepledge.com and participate as a member of Lake Sarah. We were added to the list in 2022 and encourage you to Take the Pledge!

Follow local stars on HGTV!

Sisters Lindsay Uselding and Kirsten Meehan star in **'Renovation 911'** an eight-episode season premiering **Tuesday, March 28 @ 9pm** on HGTV and Discovery+.

[Click the link for more information!](#)



Ice Clean Up!

Thank you to everyone who was able to come out for ice clean up day! We appreciate giving up some time on your weekends to help keep our lake clean and free of debris.

On a positive note, there was not a heavy amount of trash on the ice but there was certainly some hard work that went into freeing up an abandoned ice house that had become lodged in the ice.



Lake Sarah Improvement Association (LSIA) Water Quality Update and Move Forward Plan

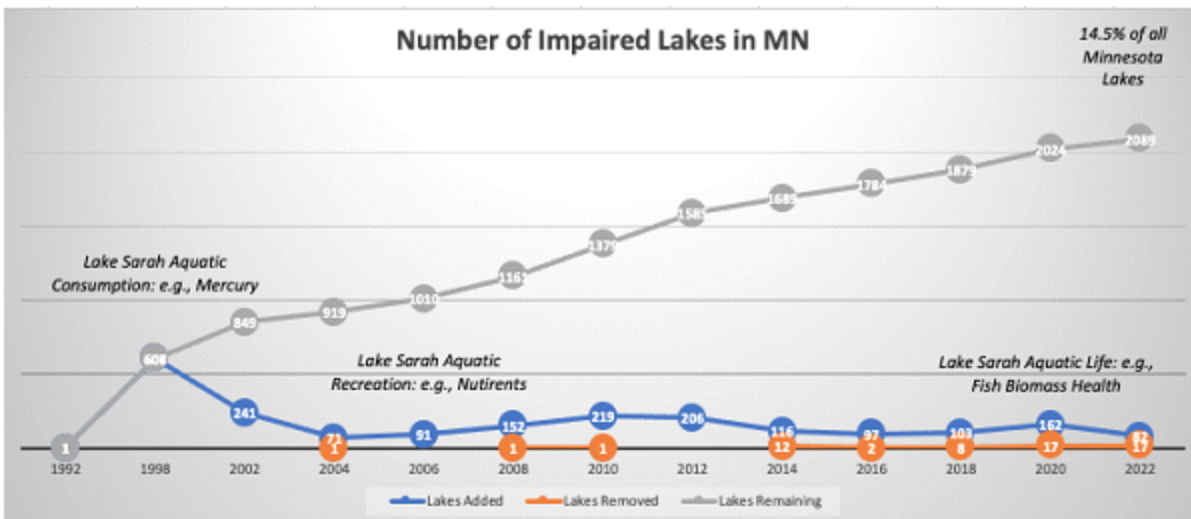
Lake Sarah gets placed on the list of Minnesota Impaired Lakes

The Clean Water Act (CWA) is the primary law regulating pollution of the nation's waterways. Originally enacted in 1948, it was amended in 1972 to add programs for water quality improvements that remain in place today.

A body of water is considered "impaired" if it fails to meet one or more water quality standards as defined by the Clean Water Act (CWA). Minnesota has implemented standards or rules in addition to the CWA standards, but the primary factors for getting put on, or taken off the impaired list remain:

- Mercury in fish tissue
- Excessive Nutrients - particularly phosphorus and nitrogen that can cause excessive algae growth, low levels of oxygen, toxicity to aquatic life, and unhealthy drinking water.

- Fish Biomass Assessments – a reduction in the number and size of the fish population in the lake



Lake Sarah was initially placed on the Impaired Lake List in the late 1990's. In 2006, Lake Sarah was to receive a secondary impairment designation – this one for the level of excessive nutrients in the lake. Nutrients (from fertilizers and animal wastes) were causing excessive weed growth (of both native and invasive species) that was choking out the lake and producing large algae blooms that would come earlier and with more potency each year. Unfortunately, Lake Sarah added the Fish Biomass designation to its list of impairments. As lakes get warmer and browner, fish biomass production decreases through different pathways. Warming reduces fish population and induces a shift toward smaller and younger individuals, whereas browning leads to slower body growth. So, this designation is largely a result of the excess nutrient issue in the lake.

The 2006 excessive nutrient impairment designation acted as a trigger for greater engagement and collaboration between the Lake Sarah Improvement Association (LSIA), State, County, Watershed and Local City Partners to develop plans, obtain grants and do water quality improvement projects for and on the lake.

These partnerships and resulting action plans have been the primary focus for the Lake Sarah Improvement Association (LSIA) efforts.

The process for lake recovery

Lakes can and have been reclaimed to be taken off the list of impaired lakes. Two local lakes from our own watershed have achieved that goal including Fish Lake in Maple

Grove and Lake Rebecca in Rockford. The process for making this happen is known, and our goal is to improve the water quality of the lake and get Lake Sarah off the list of impaired lakes. This requires the following actions of which many are underway:

- *Permanently reduce the level of inbound nutrient loading into the lake*

As a stream-fed lake, Lake Sarah relies on the inbound flow of water from rain/snow run-off and tributary creeks to keep the lake levels up, etc. A first and necessary step toward water quality improvement is to reduce the Total Daily Maximum Load (TMDL) of excess nutrients coming into the lake from these inbound sources.

In 2011, groundbreaking work with the Three River Park District, Pioneer-Sarah Watershed Management Commission, Minnesota Pollution Control Agency (MPCA) and others established a detailed understanding of the current nutrients in the lake, and the nutrient loading from run-off and inbound creeks. It also developed a set of recommended actions and investments over a 10–15-year period to permanently reduce and contain the impact nutrients on the lake.

In 2022, the Watershed developed and presented an updated set of best practices and cost benefit analysis to implement further actions to reduce the nutrient inflow from Dance Hall Creek -- where over 70% of our current inbound load is coming from. The Watershed is actively working with other partners to secure the funding to implement the highest priority actions. In addition, it will be conducting a series of sediment samples this winter to provide us with empirical evidence about the progress made in our off-lake efforts to reduce inbound nutrient loading.

- *Lower and control the amount of amount of invasive or non-native species in the lake*

Five aquatic vegetation surveys were conducted prior to and as part of the above-mentioned study. Lake Sarah is home to several native, desired species of aquatic vegetation. It has also been impacted by the introduction of non-native, invasive species with a negative impact on water quality and recreational use of the lake. The two most impactful invasive species in the lake are Eurasian watermilfoil and Curly Leaf pondweed. Eurasian watermilfoil shades and outcompetes native plants – often dominating the aquatic plant community in mid-to-late summer. It can limit recreational activities on water bodies by forming mats on the water surface and alter aquatic ecosystems by displacing native plants.

Unlike milfoil, Curlyleaf pondweed begins to grow under the ice and is established before ice-out. Thus, shading from Curlyleaf pondweed gives it a competitive advantage and hinders the establishment of native plants. Curlyleaf pondweed naturally dies in the June/July timeframe and its subsequent decomposition releases soluble phosphorus into the water where it is available for uptake by algae and often contributes to water quality degradation.

The reduction and continued containment of both these invasive species is critical to the improvement of water quality and reduction of nutrient release in the lake. This has been and will continue to be a primary area of focus and engagement by the Lake Sarah Improvement Association (LSIA) in partnership with the DNR.

- *Encapsulate and contain the existing phosphates at the lake bottom creating a barrier that retards future sediment phosphorus release*

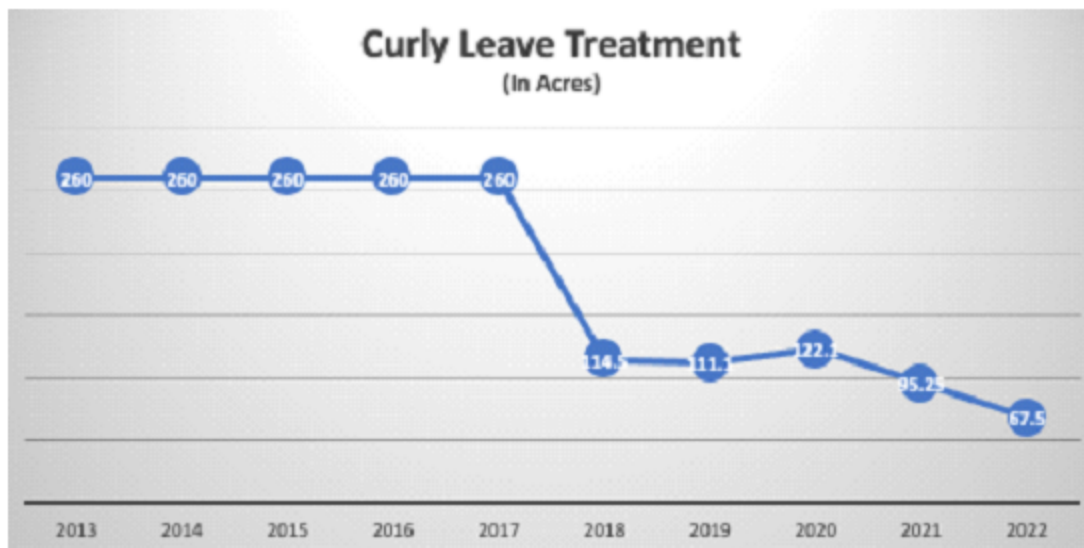
Upon successful control of the inbound nutrient loading and the sustainable ability to manage the invasive vegetation species in the lake, the final step for reclamation is the execution of an Alum Treatment on the lake. Alum treatments encapsulate and contain the existing phosphates at the bottom of the lake creating a barrier that retards future sediment phosphorus release. Less phosphorus = less algae and clearer water.

Once this is done, and as water quality and native species health improve, Lake Sarah will recover to be taken off the list of impaired lakes.

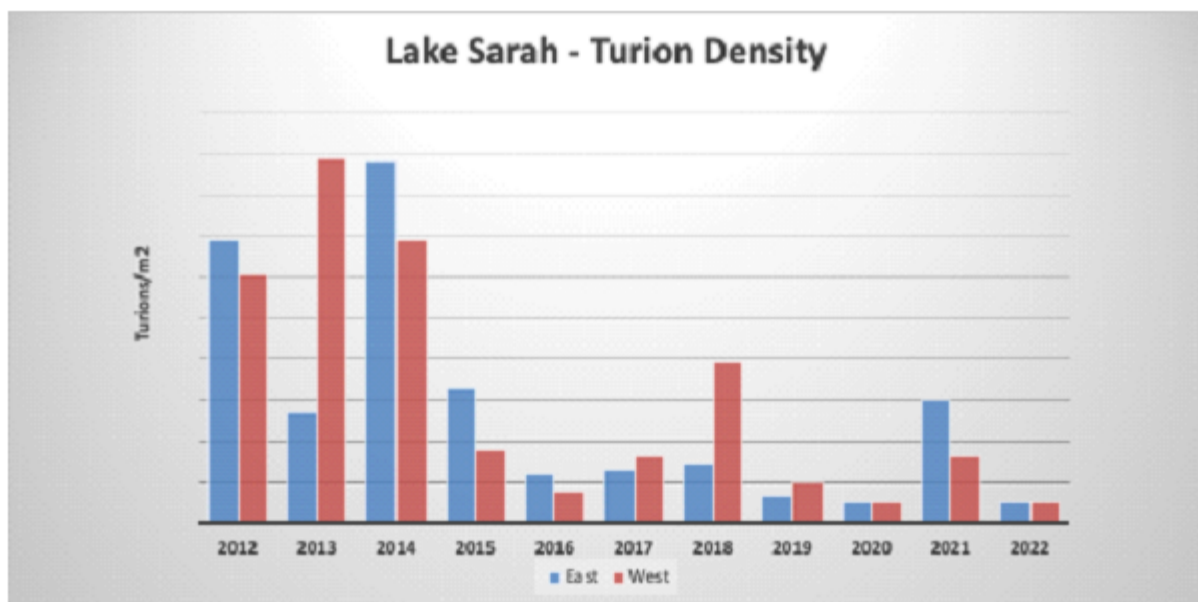
The progress we have made

Over the past 20+ years, and through the contributions, dedication, and hard work of so many concerned residents, we have made slow but steady advances with our State, County, Watershed and Local City Partners to improve the water quality of the lake.

One interesting fact about Lake Sarah that you may not know is that it is designated as two lakes by the DNR – the East and West Basin. This means that every grant requires two submissions, every improvement action separate funding, and every after-action review necessitating separate reporting. Through the diligence of the LSIA, we have been fortunate that our Partners have supported our efforts to manage the lake as a whole, treating both basins as one ecosystem for improvement.



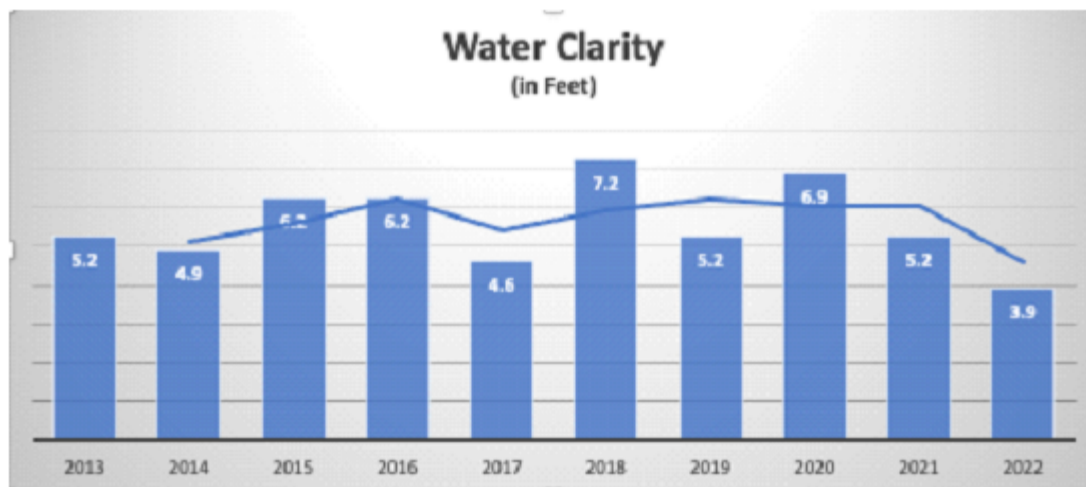
As mentioned earlier, our on-the-lake actions have focused on lake vegetation management. Every lake has native species of plants and the DNR restricts lakes from the treatment or removal of those native species. LSIA has worked closely with the DNR to develop and execute a series of multi-year Lake Vegetation Management Plans (LVMP) to reduce the amount of invasive or non-native species such as Curlyleaf pondweed and Eurasian Watermilfoil in the lake. Over the past few years, we have been successful in our efforts to reduce Curlyleaf by 75% and have found less of these invasive species to treat.



One key metric to show year-over-year improvement in Curlyleaf management is the amount of Curlyleaf pondweed winter buds (called turions) that sprout under the ice in

late Fall and early Winter, allowing them to grow rapidly in the Spring before native plant species are active. If not managed, these can form dense surface mats that can reduce light penetration and impede recreational activity. The chart above reflects our efforts to reduce the number of turions in the lake each year.

We must continue our efforts to show ongoing control of the lake. For 2023, we have applied for and just received notification of additional DNR grants totaling \$17,800 to treat the lake. A survey of the lake will be completed this Spring to determine the high priority areas for treatment.



Another indicator of progress is our efforts to improve water clarity. Water transparency directly affects the amount of light penetration into a lake. Algae and suspended particles from erosion make the water cloudy and decrease the Secchi transparency measurement in a lake. The lower the Secchi depth, the higher the algal concentration and lower level of overall water quality.

As a living ecosystem, each lake will handle high and low-lake levels differently. But low lake levels, like we have seen the past two years here on Lake Sarah, are typically associated with higher probabilities of poor water quality conditions stressful to fish including high pH, high unionized ammonia, and low dissolved oxygen. While the last two years have shown a negative progression, future water quality efforts and a return to more normal lake levels will provide the opportunity for continued water clarity improvement and healthier fish.

Our collective activities over the past years have made a difference and restored Lake Sarah's reputation as a desirable recreational lake on which to live and play.

The work to be done

We have made significant progress in the reduction of inbound loading and containment of invasive or non-native species of weeds. These are predicates for the desired Alum treatment. Any drift or setbacks in these areas will only push the Alum treatment further out into the future. We must remain diligent in our work in these areas.

To be clear, the Alum treatment is not a given. It must be earned, supported by, and funded with contributions by LSIA and our State, County, Watershed and Local City Partners. Alum treatments are expensive (up to \$700-\$1,500/acre) and will ONLY be supported by the Minnesota Pollution Control Agency (MPCA) and DNR if the first two predicates are met. They are also competitive in that there is only so much funding available to do them. Lake Sarah is competing against other lakes taking similar actions and it requires a 20-year commitment by each lake's governance body (in our case the LSIA) to continued management of the inbound and invasive species predicates to qualify).

The Watershed will be conducting a series of sediment samples to provide us with empirical evidence about the progress made in our off-lake efforts. If the study shows significant improvement in our ability to manage the inbound Total Daily Maximum Load (TMDL) of excess nutrients – this is good and improves our chance to qualify for an Alum Treatment feasibility study by the DNR to determine the lakes readiness and dosing levels for the Alum treatment which is a requirement to support our request for a permit from the Minnesota Pollution Control Agency (MPCA) to do the treatment.

Assuming the completion of the above work, the next step in the process is to secure funding commitments from the Watershed Commission, Clean Water Legacy Grants, Municipalities, Hennepin County, Three River Parks District, and Lake Sarah Association to pay for the treatment. Once this is done the treatment can be scheduled for execution.

Can we realistically expect to achieve the goal of getting Lake Sarah off the Impaired Lake List in the next 3-5 years?

YES!

If you have questions or want more information on how you can help, please contact any of the LSIA Board Members.

Financial Report

Please view the most recent Lake Sarah Improvement Association financial report.

To see the financial report, [click here](#)