RLA RENNIE LAKE ASSOCIATION TRAVERSE CITY MICHIGAN

REFLECTIONS

NEWSLETTER OF THE RENNIE LAKE ASSOCIATION

VOLUME 4, ISSUE 1 SPRING 2025

The Association is dedicated to the protection, preservation, and continued improvement of the beautiful and unique Rennie Lake and its watershed.

The RLA website contains a variety of information for your review including the Annual Report, Board meeting minutes, water quality reports, a way to contact Board members, making online dues payments, and much more. Please check out the website when you get a chance at https://rennielakeassociation.com.

President's Comments
by Ralph Bednarz

The spring of 2025 has arrived and we are all looking forward to another fun and safe season on the water. The vernal equinox, marking the first day of spring, occurred on March 20, 2025. Ice out on Rennie Lake occurred on the first day of spring this year. We initiated the 2025 lake sampling program a week later, collecting the spring total phosphorus water samples.

Rennie Lake has participated in the Michigan Clean Water Corps (MiCorps) Cooperative Lakes Monitoring Program (CLMP) since 2015. The CLMP, formerly called the "Self-Help" program, is Michigan's long-term volunteer lakes monitoring program which started in 1974. Last year marked the 50th anniversary of the CLMP. We have included a partial reprint of the article "A Legacy of Stewardship" from the 2025 winter issue of The Michigan Riparian, a Michigan Lakes and Streams Association (MLSA) publication, which highlights the history of the CLMP.

This issue of Reflections also includes a reprint article "Living on Michigan's Inland Lakes", a fact sheet on Secchi disk transparency (water clarity), Sandy Witvoet's "Nature Notes" and Buoy Bob returns with helpful suggestions on getting your boat ready for the boating season. Additionally, we have included announcements for the third annual Rennie Lake Association (RLA) picnic, the Annual Members Meeting and nominations for the upcoming election of new Board members.

As you return to the lake this spring, please talk with your neighbors about the importance of the RLA and ask them to consider joining. Membership enrollment instructions can be found on the RLA website. Also, please consider participating in one or more of the RLA committees (see RLA committees listing). A successful lake association is dependent on a growing membership and active participation of its members

Best wishes for a fun and safe 2025 lakes season. We look forward seeing you on the lake and at the RLA events this summer. Enjoy reading the 2025 spring issue of *Reflections*.

THIRD ANNUAL RLA PICNIC

What has now become an annual summer tradition, the RLA picnic, is back for the third year. This year the picnic is going to be held on Saturday, June 7, from 3:00—5:00 p.m. The Woods and Water neighborhood has agreed to be the host again this year so that we can all gather together on one beach to enjoy good food and good company. The beach is located on the southeast side of the big portion of Rennie Lake. Food (hot dogs, chips, cookies, and drinks) will be provided by the RLA Association Board of Directors. Please plan to attend and bring a neighbor who might want to join our association and contribute to the efforts to protect and preserve the lake.

RLA Nature Notes by Sandy Witvoet

Big Birds and Black Bears
A few of the "size large" birds we see around Rennie include Trumpeter Swans, Great Blue Herons and Canada Geese. (Well, the Geese are more "medium-big".)...and a bear.

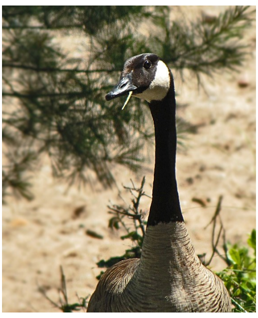
Trumpeter Swans have made a great comeback to Michigan and other northern areas in the last 25 years. In the 20th century they were almost hunted to extinction. They now flourish due to habitat conservation, re-introduction efforts and having a protected status. One of the most successful re-introduction efforts was undertaken by the MSU W.K. Kellogg Biological Station and Bird Sanctuary in Augusta, Michigan in cooperation with other swan conservation organizations. These folks would "swap" eggs from captive breeding Trumpeters, incubate and partially raise them in controlled spaces, then release in various locations. The egg swap helped guarantee a diverse gene pool. "89E" (pictured) was a popular guy and fathered 8-9 broods. He actually had his own "fan club" of birders! I spotted him on Boardman Lake 15 years ago or so. We've had family groups of Trumpeters checking out our lake recently. They'd be a welcome addition as they don't compete with Loons for food, and can coexist quite nicely. Trumpeters are our largest swan, weigh about 23 pounds, and have a BIG wing spread of around 80".

Great Blue Herons are fairly common here and it's always fun to see them hunting the shoreline for fish, frogs, and aquatic insects...and...birds! They will also hunt on land for small mammals. They nest in trees about 30 feet off the ground, often with other GB Herons in a rookery. They are definitely big, but due to their hollow bones only weigh about 6 pounds. While out boating this summer, look for them in trees as well as the shoreline. Or, if you are lucky, you might see them putting on a bit of a comedy show on shore while preening/drying their wings.

Canada Geese are quite...well, very common around here so certainly recognizable. They are social, quite adaptable and opportunistic. They used to "fly south" when cold weather arrived but have adapted their migration patterns to pretty much "follow the food". So they don't go as far south as they used to. Lazy bums. When they do migrate a bit, their flying "Vs" are pretty impressive and aerodynamic...They can, if they want to, cover 1,500 miles in just 24 hours. Their life span is about 20 years! They weigh in at anywhere from 7-20 pounds. Favorite food is nice, lush grass (think golf courses), but eat other vegetation too...Like my flowers. They can act aggressive, but you can simply stand up, put your arms up in a "V" and they most often back off. Sometimes, a good strong motion-activated sprinkler will help keep them out of your yard. "Fun Fact": One goose can produce 100 pounds of excrement in a year. THAT'S a lotta grass!

Black Bears are emerging from their hidey-holes (dens) about now, and they're hungry! Michigan has approximately 12,000 bears statewide with about 2,000 here in the northern Lower Peninsula. Last year, several of us on Rennie had one that was making the rounds of the neighborhood. Black bears are fairly shy and avoid contact with humans, unless threatened. We had the one pictured here make several valiant attempts at our bird feeder last year. To no avail. Our feeder is about 6+ feet off the ground. After having a bear tear out one about 10 years ago, we put a solid steel pole 2-3 feet in the ground, and then put the hollow pole over it. So far, so good! Female bears weigh from 100-250 pounds and males can go from 150-400 pounds. Females are usually capable of reproducing by age four, with a litter every other year, depending on food availability. Cubs remain with "mom" for 1-1/2 years. Fun facts: Even though large and heavy, bears are good swimmers...and fast runners! A 200 pound bear in Wisconsin was clocked running 33 miles per hour!

After this "real" winter, have a great Spring and Summer everyone!



Living on Michigan’s Inland Lakes

by Joe Nohner, Michigan DNR Fisheries Division

Eleven-thousand inland lakes are estimated to call Michigan home, with a good handful covering 1,000 acres or more.

With all that water comes great opportunity - boating, fishing, swimming, canoeing, kayaking, vacationing and even living! Many of Michigan's inland lakes have private residences on them, serving as respites that are enjoyed seasonally or year-round.

Michigan has a long history with lakes. Our landscape was designed by the path’s glaciers took about 12,000 years ago. While many of the lakes of those days might still be the lakes we have today, they look incredibly different now than when they were first formed or even relative to what they looked like a century ago. All of those lakefront residents dramatically changed the landscape, literally.

"Most lakes were previously surrounded by wooded shorelines with aquatic plants and fallen trees very common in the nearshore area. Water quality was typically higher, and of course, invasive species would not have been present," explained Joe Nohner, the Department of Natural Resources' inland lakes habitat analyst and Midwest Glacial Lakes Partnership coordinator. "But the lakes we see today have been dramatically affected by a variety of factors - and that change is important to recognize."

There's no denying people want to live on Michigan's lakes and the number of houses and cabins on them is constantly increasing. This trend has seemed to increase as a result of Covid and the internet we have seen an acceleration in development of lakeshore properties in Michigan. Many new owners upgrade and/or replace smaller cottages and older homes as well as modify the land near the shoreline. This has a cumulative impact on the lakes through water quality, shoreline habitat, and populations of fishes, birds, turtles, and amphibians. All that infrastructure has an impact on lakes in the form of eroding shorelands, increased nutrients in lakes, and fewer plants and woody habitat in the water and on the shore.

Lake residents, government, and other organizations are working together to protect lakes, monitor, map and manage invasive species, and protect natural shorelines. We are glad to be a part of the education and management process to help make sure these trends continue to help protect Michigan's critical natural resources.

One way the DNR and other entities work to help property owners understand those impacts and potentially rectify them is through the Michigan Natural Shoreline Partnership, which is now celebrating its 10th year.

"The neat thing about this partnership is that it represents state agencies and other organizations taking a proactive approach toward lake management in collaboration with property owners," Nohner said. "With regard to natural shorelines, we historically have been in a more reactive mode as we provide feedback on permit applications, receive complaints about fish habitat loss, and respond to similar concerns that arise. But now we're actively developing guidelines, best management practices, and other resources of value to shoreline property owners so they can take action. Whether a property owner is a do-it-yourself type or more comfortable hiring a contractor, we're providing resources to help them make their shoreline properties places where people, wildlife and fishes can better co-exist."

Nohner's focus as the DNR's inland lakes habitat analyst is to make connections for owners between their property and the health of the available habitat for fish and other aquatic resources.

"You first have to recognize what peoples' goals for their property are as they balance their activities with the benefits to fish, wildlife, erosion, and other aspects on their property," he explains. "You want to help them work toward those goals to more effectively achieve them while being mindful of budget and other restrictions."

While natural shorelines and waters help to increase populations of fish, frogs, turtles and other wildlife, they also provide benefits that might be unexpected. For example, Canada geese are sometimes perceived to be a nuisance as their droppings pile up in the same lawns that property owners may want to use for their barbeque or yard games. Natural shorelines actually deter these geese, because geese will avoid walking through natural vegetation that could contain predators. Even if a property owner has little interest in increasing the fish and wildlife populations along their shore, the actions they take could prevent a goose invasion and have bonus benefits for fish and wildlife.

"A natural shoreline helps to address the goose problem which also helps to address nutrient run-off issues and provide habitat for fish, frogs, birds and other species."

That sounds like a win-win! Participation in the program by property owners is increasing, and the Michigan Natural Shoreline Partnership is dedicated to educating and informing them of the value of implementing natural shoreline components for an overall, healthier lake.

"We try to explain that every little bit counts," Nohner said. "Property owners may only have a hundred feet of shoreline, but simple projects, like rain gardens or no-mow zones along the shoreline, help out fish and wildlife significantly. We see that once a property owner takes one or two of these steps, they often come back to add on to their improvements. We also find the early adopters on lakes are leaders for their neighbors, who see the example and are inspired to make changes on their own properties."

Are you considering a natural shoreline? There are plenty of tools and resources available online to help! Check out the Michigan Natural Shoreline Partnership's website, this neat program to evaluate the environmental health of shoreland properties and recognize stewards of more natural properties at Michigan Shoreland Stewards, or a helpful online directory of organizations dedicated to lake stewardship.

ANNUAL RLA MEETING

Please put June 21 on your calendar and plan to join us for the annual meeting of the Rennie Lake Association. As in previous years, the meeting will be held from 10:00 a.m. to 12:00 p.m. at the East Bay Township offices on Three Mile Road. This is an opportunity to vote for new board members, get an update on the RLA budget, and gain new information about efforts occurring to protect and preserve our beautiful lake.

Greetings from the Nominations Committee Chair, John Moody

Greetings from the Nominations Committee Chair, John Moody:

Hopefully you received the February 21st email from me (from rennielake@wildapricot.org) requesting nominations for the election of new Board members at our June 21st annual meeting. The deadline for submitting nominees is May 22nd. Please either respond to the survey (click Go To Poll Page in the green box) or visit the submission link on the Nominations page of our website at https://www.rennielakeassociation.com/page-18065.

You are welcome to nominate yourself!

In case you are concerned about the time commitment involved in being a Board member, the Board meets every other month remotely for 90 minutes to conduct the business of the Association. Board members who agree to serve as Officers or Committee Chairs contribute additional time to implement the direction of the Board.

Please give this request serious consideration. The Association needs active

A Legacy of Stewardship

50 Years of Lake Monitoring

2024 marked the 50th anniversary of the Cooperative Lakes Monitoring Program (CLMP). Volunteers have been collecting high-quality data on Michigan's inland lakes since 1974, contributing to one of the nation's richest long-term lake datasets. Originally a water clarity monitoring program, today volunteers can choose from a variety of water quality and habitat attributes to monitor depending on their interests.

In 1974, the Michigan Department of Natural Resources (DNR) invited volunteers to collect water clarity data from their lakes using a Secchi disk. The program was called the Self-Help program. Also in the 1970s, volunteers could collect water samples to be tested for chlorophyll a levels; the amount of chlorophyll a in the water revealed the amount of algae in the water column. The program team built all the necessary equipment themselves; the chlorophyll a sampler from the 1970s will look familiar to today's volunteers, who still receive samplers built by program staff! Volunteers mailed chlorophyll a samples to the University of Michigan Biological Station for analysis.

In 1978, the DNR assumed responsibility for laboratory analysis of chlorophyll a samples. In 1983, chlorophyll a monitoring was dropped from the Self-Help program due to budget cuts for laboratory support and some concerns about data quality, but Secchi water clarity monitoring continued.

In 1992, the DNR partnered with Michigan Lake and Stream Associations (MLSA; now known as the Michigan Lakes and Streams Association), who took over the administrative tasks including enrollment, paperwork, records, and reporting.

Between 1993 and 1998, the Advanced Self-Help Program was developed, which included monitoring the total phosphorus (an important nutrient that promotes plant and algae growth) and chlorophyll a sampling was reintroduced. Also during this period, staff biologists began visiting volunteers on lakes to collect samples alongside them to assure the quality and accuracy of volunteer data. Known by staff as "side-by-sides", these visits have proven the reliability of data collected by dedicated and well-trained volunteers. In 1998, the name was changed to the Cooperative Lake Monitoring Program (CLMP), by which it is still known today.

CLMP continued to expand in the 2000s, with the addition of dissolved oxygen and temperature monitoring in 2000 and aquatic plant mapping in 2001. Two short-lived new programs were also tested during that period: algae sampling and fish age and growth monitoring.

2004 marked the first monitoring season that Michigan's volunteer lake and stream monitoring programs were known by a new name—the Michigan Clean Water Corps, or MiCorps. MiCorps was created by Governor Jennifer Granholm to highlight the contributions of volunteers to water quality monitoring in Michigan and included both the CLMP and Michigan's Volunteer Stream Monitoring Program. MiCorps provided a structure by which both programs could be overseen by the Michigan Department of Environment, Great Lakes, and Energy (EGLE, known at that time as the Department of Environmental Quality, or DEQ) while contracting with external partners to provide program implementation. The Great Lakes Commission initially managed MiCorps with support from MLSA, the Huron River Watershed Council (HRWC), and Michigan State University (MSU). A major accomplishment in the early years of MiCorps was the unveiling of the MiCorps Data Exchange, the online database that provides all fifty years of CLMP data - and stream monitoring data, too! - at your fingertips.

The MiCorps era has seen further growth in the CLMP. In 2011, the CLMP's invasive species monitoring program, the Exotic Aquatic Plant Watch, was added. In 2014, volunteers began receiving custom "individual lake reports" summarizing the data for their lakes each year. The newest addition to the CLMP monitoring options was added in 2018, Score the Shore, which volunteers use to assess the quality of nearshore habitat around their lakes.

In 2021, after a one-year break in volunteer lake and stream monitoring in Michigan due to a funding gap, EGLE contracted with MSU to lead MiCorps in partnership with HRWC and MLSA. New features of the CLMP since that time include an online enrollment system for volunteers and online training options for volunteers. In 2024, the CLMP hit a new record with 326 lakes enrolled!

The authors of this article give special thanks to our own RLA President, Ralph Bednarz, now retired from the DEQ, who compiled a detailed history of the Cooperative Lakes Monitoring Program for his 2021 presentation at the Michigan Lakes and Streams Association conference "Michigan Inland Lakes Self-Help/CLMP/MiCorps Program Legacy."

What do transparency measurements tell us about our lake?

By Ralph Bednarz

In the 2023 spring edition of ***Reflections*** I wrote about **Lake Trophic State** and the key factors that are measured to evaluate a lake's primary productivity, or ability to produce algae and aquatic plants. I reported on two of the key factors, the element phosphorus in the 2023 fall edition and the plant pigment chlorophyll in the 2024 spring edition. The third key factor is transparency, also known as water clarity. The Cooperative Lakes Monitoring Program (CLMP) Fact Sheet reproduced below explains why and how we measure for transparency in Rennie Lake.

Cooperative Lakes Monitoring Program

Fact Sheet

Secchi Disk Transparency

What do measurements with a Secchi Disk tell us about a lake?

What is transparency?

Transparency, also referred to as water clarity, is a measure of how far light can travel in water.

What affects transparency?

Transparency is directly affected by the level of suspended particles and dissolved materials in the water.

The main types of suspended particles that affect transparency are algae and sediment. Algae are naturally occurring microscopic plant life found in most water bodies. Algae are a part of a healthy aquatic ecosystem, but their populations can increase dramatically when there are high nutrient inputs into a lake. Too much algae can block sunlight from penetrating deeper into the water, restricting plant growth and altering the balance of the ecosystem.

Suspended sediments can come from many sources. During storm events, runoff can carry clay, silt, and sand from streets, yards, fields, and construction sites into streams and lakes. In shallow waters, boats and high winds can stir up bottom sediments. Also in shallow waters, aquatic life, such as carp and crayfish, can stir up the lake sediment. For some lakes, whiting events caused by the formation of fine particles of calcium carbonate (marl) in the water is a major factor affecting transparency.

Dissolved substances in the water can also change water transparency by changing the color of the water. For example, 'tea' stained lakes have high amounts of dissolved organic matter leached from the surrounding landscape that will result in a lake with lower water transparency.

Why is transparency important?

Transparency is a basic and important indicator of aquatic ecosystem quality. When transparency is measured consistently week to week and year to year, these measurements are a useful indicator of water quality changes and patterns. When assessed along with other parameters such as chlorophyll *a* and total phosphorus, transparency measurements give us a useful insight into the level of biological productivity in a lake, and ultimately its water quality conditions.

The Secchi disk is named after Pietro Angelo Secchi, who in 1865 used a white disk to take transparency measurements in the Mediterranean Sea.

How is transparency measured?

Transparency is most commonly measured using a Secchi disk. This gives a direct measure of the depth that sunlight penetrates through the water. The Secchi disk is a weighted steel or heavy plastic disk, eight inches in diameter, attached to a line with calibrated measurements.

In the Cooperative Lakes Monitoring Program (CLMP), volunteer monitors measure transparency by lowering the disk down into the water until it is no longer visible, noting the depth on the calibrated line, pulling the disk up until it is visible again, and noting the depth a second time. The Secchi disk transparency is the average of these two depths, rounded to the nearest half foot.

CLMP volunteers measure Secchi disk transparency regularly from mid-May through mid-September. Repeated measurements are necessary throughout the growing season since algal species composition in lakes can change significantly during the spring and summer months, dramatically impacting overall water clarity.

For more information about the MiCorps Cooperative Lakes Monitoring Program, visit www.MiCorps.net

Michigan Clean Water Corps

MiCorps is funded by the Michigan Department of Environment, Great Lakes, and Energy and administered in partnership with Michigan State University Extension, Michigan Lakes and Streams Association, and the Huron River Watershed Council.

BUOY BOB RETURNS!

Ahoy Mateys! I hope you didn't miss me too much. Somehow, I got untied from my mooring and pretty much floated completely around the world! Whew, good to be back. Speaking of floating…its almost time to untie the packaging on your boat for another season of sun, fun and good times on Rennie Lake!

Before you do, however, now is the perfect time to take care of the items that you could wish you had done, but maybe didn't, in case an emergency on the water comes up. Some things might be checking and/or charging your battery, confirming that you have good life jackets for ALL potential passengers and assuring that all your navigation lights are in working order. There are also some routine engine checking and preparations to do, but I recommend you see an expert for that.

I also think making a list of the phone contact information for your friendly neighbors and putting it in a waterproof or sandwich baggie. Store it that ON THE BOAT in case you come upon a "no start" or stalled condition late in the evening – its no fun floating in the water over night – let me tell you!

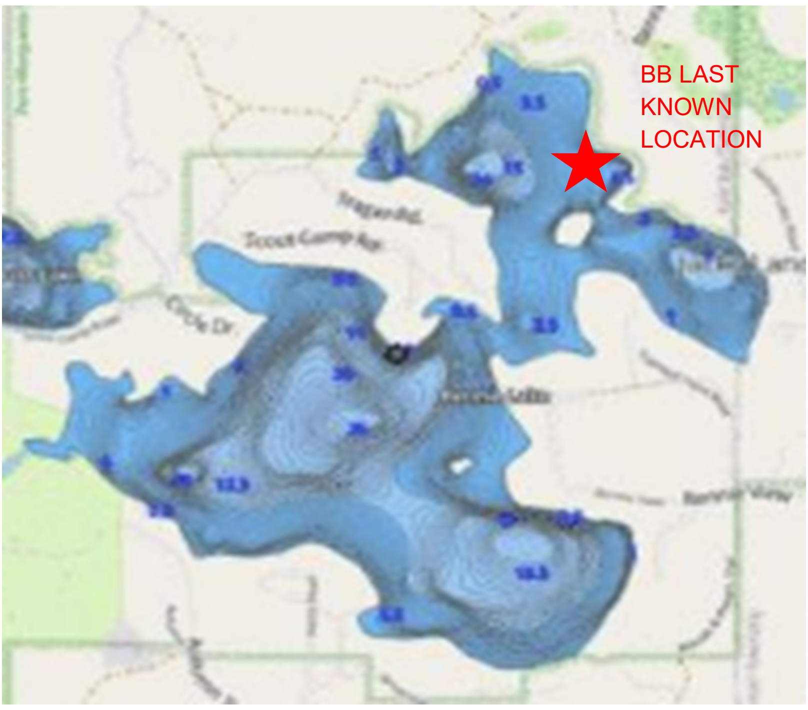
Lastly, please be courteous to all boaters and pay attention while motoring around. If someone fails to heed the counterclockwise boating pattern, calmly speak to them and ask them to do it right. No sense making enemies over it – they could be new to the lake!

Have a great summer on Rennie Lake!

Yours truly,

Buoy Bob

Our Favorite Lake!



A reminder from the RLA Webmaster John Moody

Our website is being used to provide you with important email from the Board and its Committees. Please check your junk / spam folder and add email from RennieLake@wildapricot.org to your address book or safe mail list. It may be easiest to simply allow all email from @rennielakeassociation.com.

Thank You Members!

The RLA Board would like to thank all the members who support the efforts to protect, preserve, and maintain our beautiful Rennie Lake. We appreciate your financial support and the time you give to being involved and staying informed. Please feel free to contact any Board member with questions or suggestions about current or future events. And please share with your non-member neighbors the importance of joining the RLA so we can all be good stewards of the beautiful lake that we are so fortunate to enjoy. Have a great summer!

BOARD OF DIRECTORS

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Bryan Gilleland, Treasurer
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Nominating and Voting, John Moody, Chair

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