

Manitowoc County Lakes Association

*Intended to provide useful current information to help Members
and the Public understand and protect Our Resources*

2023 Edition



Letter from our President



Greetings to all,

This includes all who are on the mailing list of this newsletter, especially current Manitowoc County Lakes Association members and hopefully some new members to come. It has been about two years since I assumed the presidency of MCLA after the retirement of Tom Ward from our organization and believe me Tom had some incredibly large shoes to fill. I'm still learning and I'm doing what I can but this introductory letter from me also is a plea for help. As one never stops learning I hope to learn something from any or all of you in the nearterm.

Our organization has been filled with passionate members concerned about the health of our lakes and watersheds for the past 25 years. Many Manitowoc County individuals have been recognized at our annual banquets for their lake stewardship. Our list of past presidents include Tom Ward, John Durbow, Gene Weyer, Dave Pozorski and Brian Robley, to name some. These are all great people with extreme concern for the quality of our lakes and surrounding natural resources that have donated their time and effort in the past to make our organization

successful. Going forward we need to keep adding more names to this list to pass down to our successors. Will you be one of the new names?

It has also been about three years since our last published newsletter. Why? It has taken that long to gather enough information from our area lakes to put this together. Without active participation from our area lake representatives and other volunteers to submit information to publish a newsletter, we have the resulting long gaps in the information trail. This is not a trend I wish to see continue. However, I recently saw a statistic that volunteerism is down nationwide and more specifically 14% in the state of Wisconsin since the onset of the Covid 19 pandemic. Again I ask why? For the most part society is back to normal contact amongst citizens but every individual's answer as to why they may not want to volunteer has their own personal reason. MCLA along with every other volunteer organization seems to be looking for more volunteers. All of our Manitowoc County Lakes share similar issues and many of the lakes have lake specific organizations that try to deal with their own individual concerns. That's fine but we also need to share best practices amongst our lakes. Active participation from the local level to get information to MCLA and the county level or beyond is critical. Will you be the active information conduit from your lake or local organization to MCLA? So I'm going to jump off my high horse now and wish everyone a fantastic 2023 summer and fall season. Be safe and enjoy the outdoors and the wonderful waters of Manitowoc County. I look forward to listening to any comments you have

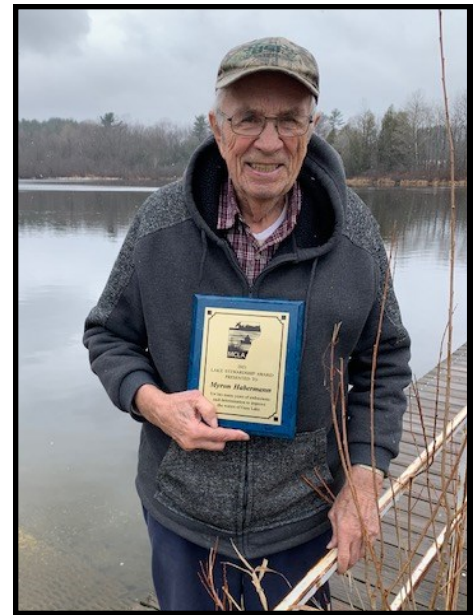
about how we can help. Visit our website

(manitowoccountylakesassociation.org) for upcoming events or contact any of our officers to make suggestions. Please attend our meetings that are listed on the website. With your help we can make the Manitowoc County Lakes Association the best county wide organization in the state!

From our new Vice-President



Maria Lynch has lived on Little Pigeon Lake since 2020. In January 2019, Maria moved into Manitowoc County after retiring primarily as a middle school art teacher for 25 years. She had been in the teaching profession for over 37 years and has taught students of all ages, including adults and teachers. Teaching within many disciplines including environmental science, she has a variety of experience and expertise. As an avid outdoor enthusiast and water bug, Maria Lynch enjoys all nature activities especially those that deal with water, such as fishing, swimming, kayaking, paddle boarding, and boating. She feels that water quality and the care of this precious resource should be a top priority for everyone.



MCLA honored Tom Lambert and Myron Habermann at the 2021 annual banquet. Tom and Myron were the 93 year olds that sparked the Gass Lake Restoration Project. They provided the enthusiasm, and other Gass Lake association members handed obstacles as they came up. There were many times when the Gass Lake restoration looked like it might not be implemented, but with the encouragement of Myron and Tom it was successfully completed.



We had a very nice send off for **Tom** and **Paula Ward**. Tom for his many years of dedication of service to our organization, and to Paula, for all the nights sitting home alone, waiting for Tom to come home from our late night meetings. We know you will enjoy your retirement, and will truly miss you both.

Did you know winter migration isn't just for the birds?

Swallows and swifts are not alone when it comes to catching and eating their meals in mid-flight and flying south for the winter. You may know that monarch butterflies and painted lady butterflies migrate south for winter, but did you know that some dragonflies do this too? Many of our dragonflies spend their winter in Wisconsin lakes as aquatic larvae, shielded from the cold by living under the ice in the relatively warm water and sediments. Others, like the green darner, fly all the way to Florida or the Gulf of Mexico as adults to escape the cold. They stay there for an entire generation over the winter, and the newly hatched green darners head north again in springtime for the warmer months. A new generation is born in late spring in the North, and flies back to the south in September before the first hard frost. Winter migration isn't just for the birds; certain butterflies and dragonflies...and even some of us humans have realized that winter migration to Florida isn't such a bad idea either.

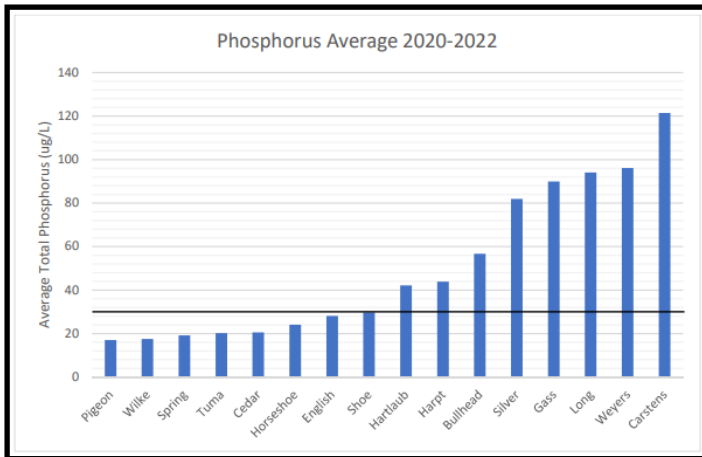
Writer by Robert Korth
Lake Tides 47 (3)



2022 Prosperous Data from our Counties Lakes



The graphs to the left shows the average phosphorus levels found in each of these lakes for the past 11 years. As you can see, 2022 data shows a decline in phosphorus levels from the previous few years. This could partially be due to the fact that 2022 saw less rainfall from the previous years, which helped reduce the amount of sediment and dissolved nutrients running off into the lakes and hopefully partially due to increased engineered practices and management practices installed within the watersheds of many these lakes. The black line across the graphs represents the EPA and WI DNR impaired waterbodies threshold of 30 ug/L (micrograms per liter). Many of the lakes over this level are classified as drainage lakes, which means they have an inlet and an outlet. These inlets allow for more sediment and nutrients to enter into these lakes via surface water drainage.



The graph to the left, shows an average phosphorus level in ug/L (micrograms per liter) from 2020 to 2022. Just like the other graphs, the black line represents impaired waterbodies over 30 ug/L. When looking at this data, one thing that needs to be considered is that 2020 and 2021 were outliers in many of the lakes due to higher rainfall amounts. This spike can be seen in the other graphs provided. In many of these lakes, the current 2022 phosphorus levels are lower that the average for the past 3 years.

	Day Pass		Seasonal Pass		General Donation	
	Count #	Amount	Count #	Amount	Count #	Amount
Bullhead Lake	96	\$480.00	17	\$340.00	11	\$53.00
Carsten's Lake	29	\$145.00	29	\$440.00	3	\$9.01
Cedar Lake	421	\$2,105.00	122	\$2,415.00	27	\$132.00
English Lake	108	\$540.00	17	\$340.00	9	\$38.00
Harpt's Lake	109	\$535.00	16	\$320.00	7	\$51.07
Horseshoe Lake	88	\$440.00	19	\$380.00	5	\$32.00
Long Lake	611	\$3,060.00	112	\$2,240.00	24	\$128.00
Pigeon Lake	93	\$465.00	28	\$560.00	8	\$29.25
Silver Lake	42	\$210.00	17	\$330.00	4	\$23.00
West Twin	42	\$210.00	3	\$60.00	13	\$43.50
Wilke Lake	56	\$280.00	23	\$460.00	4	\$27.55
Walk In	0	\$0.00	34	\$720.00	0	\$20.00
Total	1695	\$8,470.00	437	\$8,605.00	115	\$586.38

Manitowoc County launch tube donation totals for the 2022 season. The money collected is used for maintenance of all Manitowoc County launch facilities and helps offset costs for new piers, restrooms, paving and signage.”

Carstens Lake Water Quality Improvement Project Overview of Sedimentation and Treatment Basin with Sorption Technology



Lakeshore Natural Resource Partnership (LNRP) and partners at Stantec and the University of Wisconsin – Stevens Point (UWSP) are working on a design for water quality treatment along Pine Creek, a direct tributary to Carstens Lake. The project was initiated as a result of a three-year study, conducted by the Manitowoc County Lakes Association (MCLA) between 2012-2014, which identified high levels of phosphorus in Carstens Lake. At the time of this study, the amount of total phosphorus was >40 ppb (compared to the DNR target of 20 ppb) and has since increased to 97 ppb. The 2018 Carstens Lake Comprehensive Management Plan recommends offline structures adjacent to Pine Creek for water quality treatment to mitigate phosphorus loading in Carstens Lake, and was the catalyst for this project.

The goal of LNRP and partners is to improve water quality in Carstens Lake and Lake Michigan, create wildlife habitat, and increase diversity of land use within the predominantly agricultural landscape. The project will also highlight research conducted by UWSP, which is exploring the potential for beneficial reuse of slag material as a sorption media for phosphorus reduction. If successful, similar technology can be applied to local near-shore Lake Michigan watersheds.

The offline sedimentation basin, to be constructed later this year, will decrease high stream flows and allow particulate solids and nutrients to settle in the basin, protecting Carstens Lake and ultimately Lake Michigan from runoff contaminants. In addition, a secondary treatment will be provided by implementing UWSP's sorption technology in the outlet berm. This will capture reactive phosphorus prior to discharge into Pine Creek, increasing the amount of pollution removed from the stream. The sorption technology, developed by Professor Kyle Herrman, uses steel furnace slag to remove dissolved phosphorus from the water stream. The UWSP lab teams tested the slag throughout 2022 to ensure the technology is suitable for use in the field, and are currently in the final stage of review. So far, ecotoxicity testing results have been favorable, and UWSP is waiting on the final conditional approval from the Wisconsin Department of Natural Resources (WDNR).

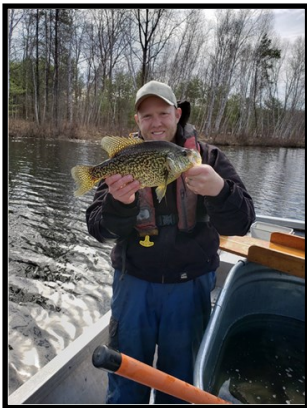
With grant funding from the Fund for Lake Michigan, LNRP and Stantec are hoping to begin construction in fall 2023. UWSP staff and UWGB-Manitowoc Campus student interns will be responsible for maintenance and monitoring throughout the course of the first two growing seasons at Carstens Lake (expected to be 2024 and 2025) as well as collection of baseline data in 2023. During these first two years, UWSP will install automated sampling equipment to capture both high flows during storm events and subsequent sampling after each storm. Dr. Herrman's lab at UWSP will supply equipment and water chemistry analysis, making it possible to monitor the levels of phosphorus and suspended solids in Pine Creek. UWSP will also support staff time for graduate students to monitor and evaluate samples. Additional funding for supporting the two-year pilot program was provided by MCLA and LNRP's Stewardship Investment Fund.

This project is only one step in a broader restoration process. There is a degraded wetland area located east of Pine Creek that will be enhanced for additional water quality benefit and habitat value. LNRP proposes to remove invasive reed canary grass, excavate two shallow wetland scrapes, and install a native pollinator-friendly seed mix to the wetland area. The wetland scrapes will provide additional flood storage and nutrient capture along Pine Creek, adding to the water quality improvement created by the construction of the offline sediment basin.

Invasive Species Coordinator

Jake Divine is the Invasive Species Coordinator for Glacierland RC&D. Glacierland RC&D is a nonprofit, grass-roots organization that is committed to wise use and conservation of our natural resources. Glacierland's projects address sustainable agriculture, multiple use forestry, clean water, and invasive species. As the Invasive Species Coordinator, Jake acts as the point of contact regarding invasive species issues in Manitowoc & Kewaunee county, administers the Lakeshore Invasive Species Management Area (LISMA), provides training and education on invasive species monitoring, prevention, and management, and helps implement restoration and management projects.

New fisheries Biologist



My name is Jason Breeggemann and I am the new fisheries biologist with the WDNR based out of Green Bay. My current duties will include management of the fisheries in Brown and Manitowoc counties as well as the Green Bay walleye and musky fisheries. I was previously the WDNR fisheries biologist for Shawano, Menominee, and Waupaca counties. I worked as a biologist in that position since March of 2017. I have a B.S. from the University of Minnesota, M.S. from UW Stevens Point, and PhD from South Dakota State University. In my free time, I enjoy hunting, fishing, and gardening.

Carstens Lake Association

The Carstens Lake Association held the annual meeting on June 11, 2022. The current officers are President Brian Robley, Vice President Marcia Salm, Secretary Treasurer Patti Reilly. Joe Kopplinger continues to maintain the boat cleaning station and representative to Manitowoc Fish & Game.

The past 3 years the oxygen level on the lake was sufficient to not have to run the winter aerator. The lake water clarity is poor with the June Secchi disc readings at 2.25.

On June 30th MCLA hosted a meeting with Stantec for a discussion on the Carstens Lake project. The presenters were Jim Kettler, LNRP and Sarah Majerus, Stantec, Christian Burnson, PE, Stantec. A decision was made for an August Carstens Lake Association meeting to get further clarification on project liability and financial obligation.

Cedar Lake Summary

The Spring 2022 Lakes conference was well attended. The day long workshop on increased problems with large waves seemed to indicate that the WDNR is looking to other states on studies and will not propose any restrictions to boats, boating, or legislation any time soon. They seemed to promote any regulation will need to come from local ordinances. Some local ordinances have been passed with successful reduction in wave creating activities but non have yet been challenged in courts. Large waves along with high water have shown visible signs of erosion. However significant damage to the lake bottom ecology due to propeller energy is rarely seen.

Costly vandalism to our
aeration signage at
Weyers Lake boat landing



Long Lake Report

Long Lake Advancement Association (LLAA) held a special meeting on September 17, 2022 to address the nuisance population of wild Canadian geese on the lake during the summer. Wildlife Biologist Mike

Jones presented different methods of reducing and discouraging the goose population as well as the costs and permits required. One or mor methods are planned to implemented his spring and summer.

The information kiosk in the county park at the boat ramp was repaired and painted. New aluminum signs with the "Slow No Wake Hours" for Long Lake were also installed on the kiosk.

The association held its annual fund raising drive in November.

Ice fishing tournaments were held this winter. The Brillion High School Fishing Team sponsored one and the local bait shop also sponsored one.



Little Pigeon Lake

Little Pigeon Lake is an 8-acre lake located in Manitowoc County. It has a depth of 14.5 feet at its deepest point with an average depth of 8 feet. Fish predominately present in the lake include Pan Fish, Largemouth Bass, and Northern Pike.

Little Pigeon Lake is a hidden gem as it does not offer public access, yet provides a crucial area of wildlife habitat. Unlike Pigeon Lake, its nearest lake neighbor that offers public access, an abundance of recreational activities, and includes a privately run camp called Sinawa, which offers rentals and some public access in certain areas of the camp.

Little Pigeon Lake is quiet with a nature-like setting and offers wildlife viewing and natural habitat. There is only 13 houses spread out around the lake and a large area of shoreline is not used for residential purposes. I consider myself very fortunate to be part of this lake community. This little lake assists in making Wisconsin great.

WILKE LAKE MOVING FORWARD ON PROPOSED REGULATIONS SUGGESTIONS FOLLOWING THE 2018 COMPREHENSIVE LAKE SURVEY

Jason Breeggemann, current Manitowoc County Fisheries Biologist, has started the process recommended by Steve Hogler, former Manitowoc County Fisheries Biologist to change some of the fishing regulations on Wilke Lake. Steve recommended and Jason supports, given that science supports, 3 regulation changes.

- Change the bass regulation to a minimum length limit of 18 inches and a daily bag limit of 1 to increase the numbers of bass to increase the predation on bluegills.

- Change the walleye regulation to a minimum length limit of 18 inches and a daily bag limit of 3 to increase number of walleyes to increase predation on bluegill.
- Change the northern pike regulation to a 25-35 inch protected slot limit and a daily bag limit of 2 to allow some harvest of smaller, slow growing pike and hopefully improve the quality of the northern pike fishery.

Supervisor, Michael Donofrio passed along a Wilke Lake's survey results showing the support of the lake association members.

The review process is fairly lengthy. First, there is an internal Wisconsin Department of Natural Resources review where the species team (e.g., bass team, walleye team and northern pike team) will evaluate and provide their feedback on each proposal as well as the Fish Management Policy Team. If the proposals pass through the internal WDNR review process, these regulation proposals would be on the 2023 spring hearings in April 2023 for the public to provide feedback on whether they support these changes. If the regulations proposals receive favorable support at the spring hearings, they would continue through the process and go into effect in spring of 2024

Lake Michigan Report

The Beach is back! The water level for Lake Michigan has dropped from its record high in 2020 to just below its long-term average for March. The Lake waters are 31 inches below the record high, and 33" above the record low set in 1964. At high water, there has been no beach to walk, and most stairs accessing the beach were destroyed.

The high water eroded the toe of the bluffs, causing massive sloughing of the bluff face in many areas. This will



Be followed by collapsing of the crown of the bluff, as the soil reverts to the natural slope of repose. Many trees have toppled onto the beach, and the roots have accelerated the rate of collapse as they drag massive amounts of soil with them. Wave action is only one factor in Bluff erosion. The area soils are often sandy with interspersed clay layers deposited during prehistoric eras as lake bottom. Ground water seeps into the surface adjacent to the Lake, and it percolates down until stopped by one of the clay lenses. It then runs towards the Lake bluff, where in winter ice caps it. The hydrostatic pressure builds until thaw, when the face of the bluff blows off, propelled by the trapped water.

The rate of bluff erosion is claimed to historically be 20-22" per year, averaged since 1939. Ergo the bluff setback requirements required of new buildings. These calculations anticipate a 50 year life for a structure.

Lake level is very roughly cyclical, so we might expect 15 years of low water and access to the beachfront. Bring out the beach bikes.

Join our Membership:
Manitowoc County Lakes Association
\$25 individual membership

Payable to :

MCLA
P. O. Box 342
Valders, WI 54245

Save the meeting dates

February 15, 2024

April 25, 2024

June 27, 2024

August 29, 2024

September 29, 2024, Sunday
Annual meeting/banquet at
the Autumn Ridge Golf Club

November 21, 2024

*Additional details with respect to meeting agendas or guest speakers will be announced
at later dates or can be found on the MCLA website*
<http://www.manitowocountylikesassociation.org/>