Michigan Waterfront Alliance Update for Friday, August 15, 2025

1 message

Photo by Scott Brown

Welcome to the Michigan Waterfront Alliance

Update for Friday, August 15, 2025

Michigan Waterfront Alliance

P. O. Box 392

Mecosta, MI 49332-0392

michiganwaterfrontalliance.com

Michigan Waterfront Alliance (MWA) is a 501(c) 4 non-profit corporation formed over twenty years ago in order to effectively advocate for the creation or preservation of state laws, and/or policies designed to protect, preserve, and promote the sustainable and wise use of our state's immense treasure of high quality freshwater resources. Our primary mission will be accomplished by pro-active participation in Michigan's legislative process (lobbying), by

participating in court cases whose outcomes may have significant statewide ramifications, and/or by direct involvement with natural resources management, or environment focused state agencies or departments.

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What We Would Like the Readers of this Newsletter to Know about Michigan Waterfront Alliance

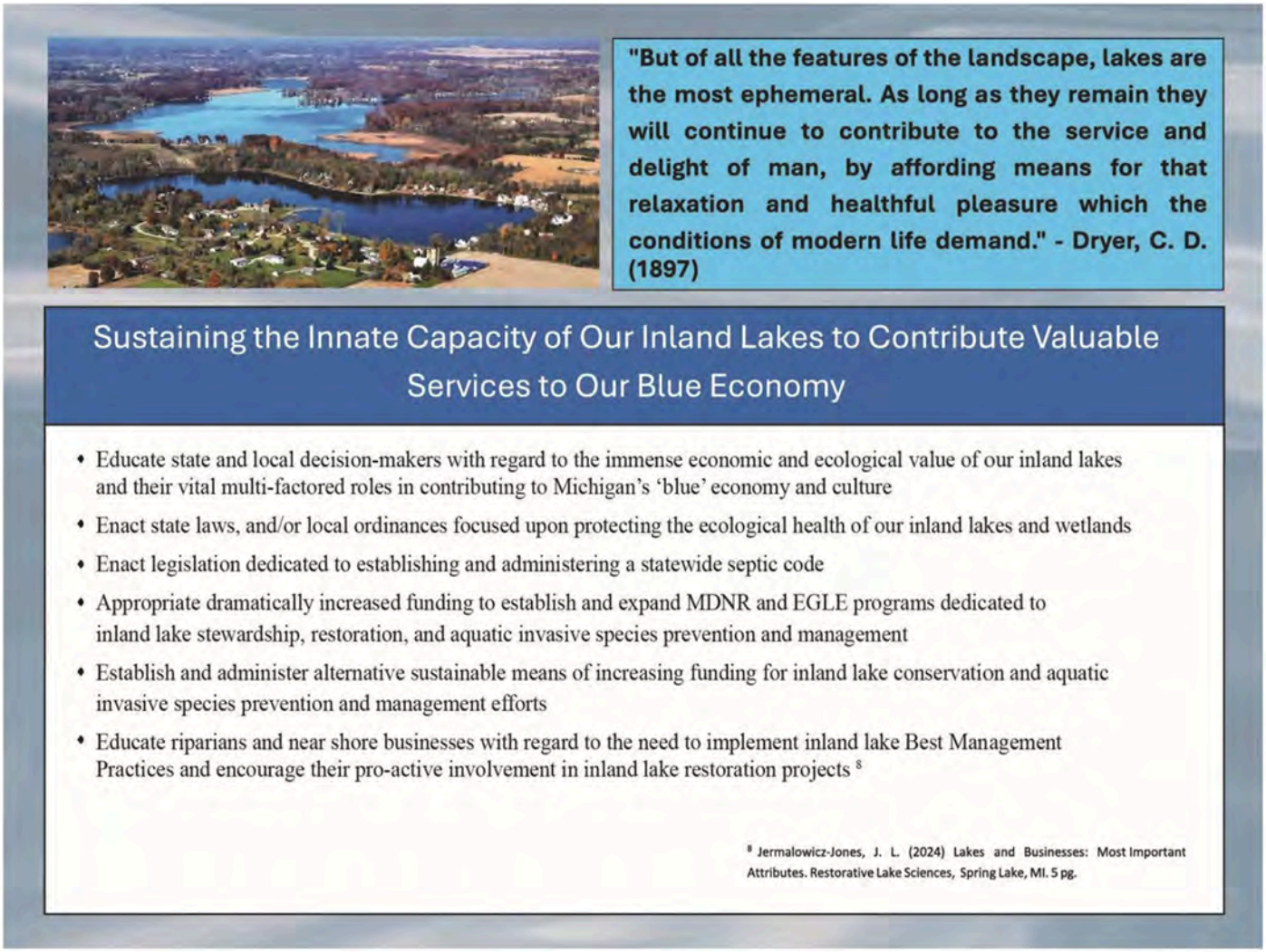
Our Mission:

Michigan Waterfront Alliance (MWA) is a 501(c)4 non-profit corporation formed to protect, preserve, and promote wise use of the inland waters of the State of Michigan. Our mission will be accomplished by active participation in the legislative process, court cases, and/or direct involvement with related state agencies or departments. This membership-enabled corporation maintains the ability to influence legislation through lobbying, an action that is not permitted by 501(c)3 non-profit organizations.

- **Michigan Waterfront Alliance is one of just a few non-profit organizations that is permitted by law to influence our state's legislative process in regards to the enactment of state laws, regulations, or policies whose implementation and enforcement ultimately have a direct impact on Michigan's vast natural legacy of high quality freshwater resources by lobbying. Lobbying is defined as the act of attempting to influence decisions made by government officials. Enabled through direct communication and pro-active advocacy, lobbying involves various activities aimed at persuading policymakers, especially state legislators, to support or oppose specific legislation, regulations, and/or other government actions.**
- **The vast majority of the revenue derived through membership or by donations to Michigan Waterfront Alliance is utilized to compensate our Lansing-based lobbyist - Michigan's longest serving multi-client lobbying firm, Karoub Associates.**
- **Not a single person who works for Michigan Waterfront Alliance, including the Officers and Directors of our Board of Directors, receive any form of monetary compensation.**
- **Those who work to enable the day-to-day operation of Michigan Waterfront Alliance are motivated by the desire to contribute in some modest way to the conservation of Michigan's extraordinary valuable natural legacy of high quality inland lakes, rivers, streams, and wetlands.**
- **It is important for our readers to understand that most of the revenue we receive through the payment of individual, association, or corporate dues as well as donations to Michigan Waterfront Alliance go directly to support our Karoub Associates enabled Lansing-based lobbying efforts that occur on behalf of our freshwater resources, associations, and lakefront property owners (riparians). A small percentage (about**

10%) of our total revenue goes to fund the payment of non-discretionary administrative expenses.

- **The fact is, only a small fraction of the thousands of readers of this newsletter have thus far chosen to become individual, association, or corporate members, and/or to donate to Michigan Waterfront Alliance.**
- **In order for Michigan Waterfront Alliance to sustain our commitment to working on behalf of the preservation of our precious inland lakes, rivers, streams, and wetlands, and the protection of the riparian rights of lakefront property owners, we desperately need many more of our readers to make the wise decision to become Individual, Association, or Corporate members, and/ or to make a generous donation to our efforts by becoming a Bronze, Silver, or Gold MI Healthy Lakes Champion today!!!**



MIDWEST GLACIAL LAKES Partnership

MGLP provides over $300,000 in grants to conserve fish habitat in lakes

The Midwest Glacial Lakes Partnership (MGLP) is awarding $305,584 through its 2025 Lake Conservation Grant to five projects across the Upper Midwest. Together, these projects will benefit glacial lakes and their fish habitats, fish populations, and fisheries for years to come.

Funds for the Lake Conservation Grant are provided by the US Fish and Wildlife Service and will be matched by over $700,000 in contributions from project partners, for a total conservation investment of over $1,000,000.

The five projects funded by the 2025 Lake Conservation Grant are listed below.

- **Acre-for-acre restoration of lake hydrology and Northern Pike spawning habitat for Cedar Lake (Michigan), Cedar Lake Improvement Board - $84,310**
- **Advancing a statewide Lake Steward Program to promote natural shorelines and fish habitat, Minnesota Lakes and Rivers- $58,250**
- **Ottawa County (Michigan) natural shoreline restoration project, Ottawa Conservation District - $68,385**
- **Walleye habitat engagement in Wisconsin, Wisconsin Department of Natural Resources - $12,741**
- **Midwest Glacial Lakes Partnership operations, Michigan Department of Natural Resources - $81,898**

The Lake Conservation Grant is operated annually by the MGLP as a member of the National Fish Habitat Partnership. Curious to learn more about past MGLP projects? You can find a map of past projects on the National Fish Habitat Partnership's Project and Accomplishments Dashboard.

Those interested in future grant applications can find more information on the Lake Conservation Grant page of the MGLP website and can sign up for this MGLP Newsletter to receive notifications if not already subscribed. Read more below about the projects that received funding this year.

To download a pdf copy of this presentation, click here

Join the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for this free monthly webinar series, to learn how to address environmental issues in your community. Each webinar will include a presentation by EGLE staff and time for questions from attendees. All webinars will be recorded, and a link to the recordings will be shared with all

registrants, after each session. More information about the series, including upcoming webinars and recordings of past webinars, can be found on the series webpage.

Reminder to register for the next Local Leaders Webinar!

August 28, 10 - 11 AM

What Local Leaders Should Know About Drinking Water

Presented by EGLE's Office of Clean Water Public Advocate, this webinar will provide an overview of how public water supplies are regulated and what resources are available. It's important to learn how the residents in your community get their drinking water to understand what common questions they may have, who they should contact if there are concerns, how they can find out about their water quality, and what resources may be useful to them. This webinar will help provide you with information and resources to address common drinking water needs and questions in your community.

Upcoming webinars in the series

September 9, 10 - 11 AM

What Local Leaders Need to Know About the State's Burning Regulations

October 16, 10 - 11 AM

Waste Gone Wild and Local Enforcement

November 18, 10 - 11 AM

Wetlands - Where are they and how are they regulated?

December 17, 10 - 11 AM

Marijuana Production and Processing Operations – Environmental Regulations and Concerns

Michigan.gov/EGLEevents

Program Questions:

Jim Ostrowski: Ostrowskij2@Michigan.gov

Registration Questions:

Alana Berthold: BertholdA@Michigan.gov

Michigan Department of
Natural Resources
Caring for Michigan's outdoor places and stories since 1921

August 8, 2025

Contact: Kesiree O'Brien (DNR), 517-388-4536

Reclaiming resilient Michigan streams: Over 140 miles of streams reconnected so far in grant project

With America's Ecosystem Restoration Initiative funding, the DNR and partners have removed seven stream barriers

The Michigan Department of Natural Resources, with help from many conservation partners, is halfway through completion of a $5 million grant project to remove 27 stream barriers, including 16 DNR-managed dams. Efforts to date have reconnected more than 140 miles of streams.

Funding for this work was awarded by the National Fish and Wildlife Foundation's America's Ecosystem Restoration Initiative (formerly the America the Beautiful Challenge), which seeks to conserve and restore aquatic and terrestrial ecosystems, improve resilience to flooding and other threats, and expand community access to nature.

What's been accomplished so far

The DNR was awarded grant funding in 2022, and work on the project began in June 2023. Since that time, the following components have been completed:

- **Crawford County: removal of Hulbert Road Dam.**
- **Emmet County: replacement of 5 Mile Creek Road-stream crossing and Wycamp Creek Road-stream crossing.**
- **Jackson County: removal of Portage Creek Trout Pond Dam.**
- **Luce County: removal of Spring Creek Trout Pond Dam.** ***(Spring Creek, shown above, after dam removal)***
- **Mackinac County: removal of McAlpine Trout Pond Dam (expected completion September 2025).**
- **Mecosta County: removal of Altona Dam.**
- **Oceana County: removal of Marshville Dam.**
- **Oscoda County: removal of Mio Walleye Pond Dam (expected completion September 2025).**

"Funding from this partnership helped us restore connectivity to two major fisheries (Five Mile and Wycamp creeks) for LTBB citizens," said Samuel Day, Great Lakes fisheries research specialist at Little Traverse Bay Bands of Odawa Indians. "The new crossings make it easier for native fish like suckers to migrate from Lake Michigan to their spawning grounds and will help sustain these fisheries for generations to come."

Other completed aspects of the project also have yielded positive ecological and community effects. Removal of the Altona Dam on the Little Muskegon River has helped reconnect 116 miles of streams and tributaries and restore natural stream function. Native grasses and shrubs were installed in fall 2024, and native shade trees were planted in spring 2025. According to the Muskegon River Watershed Assembly, which partnered with the DNR on this effort, a public-access kayak launch is planned at the site, and additional ways to improve public river access on the Little Muskegon are being explored, too.

Funding from this grant also allowed the Conservation Resource Alliance and West Michigan Shoreline Regional Development Commission to implement critical stream restoration and sediment mitigation efforts for the removal of Marshville Dam on Stony Creek in Oceana County.

"With this funding, over 4,000 cubic yards of sediment were prevented from washing downstream, and more than 130 habitat structures were installed in a section of the stream impacted by the dam," said DJ Shook, senior project manager and biologist at the Conservation Resource Alliance. "Early feedback from anglers indicates that this investment has led to larger and more abundant fish being caught in this hidden gem of a stream."

What's next

An additional 11 projects are slated for action in 2026. The outcomes from all of these projects will serve to address public safety, protect valuable natural resources, and improve the ability of the DNR to focus management efforts and resources on dams in places that provide high-quality resource benefits and public use.

Many of the removal projects that are called “dams” aren’t really serving as dams but are barriers that require removal for public safety and better fish movement upstream and downstream. The following four projects slated for removal are located in the channel but serve no useful purpose and prevent fish from moving upstream: Carr Creek Fish Barrier (Delta County), Big Trout Lake Fish Barrier (Marquette County), Buckhorn Creek Dam (Mecosta County) and East Branch Dam (Oscoda County).

An additional four projects are remnants of the state’s fish hatchery and production program. The structures are no longer needed for contemporary production, and their removal is necessary to restore stream banks and also to improve stream connectivity for fish. These project locations include Dana Lake Pike Marsh Dam (Delta County), Thompson Creek Blocking Weir (Schoolcraft County), Almena Hatchery Dams 1–5 and a diversion dam (Van Buren County) and Rapid River Pike Marsh structure (Delta County).

On the North Branch of Cole Creek Road (Lake County), perched and undersized culverts will be replaced with a timber bridge that will span the stream and allow for free movement of fish upstream and downstream and result in less sediment to the stream.

A strong public/private partnership led to a project on Apple Creek, a tributary to the Boardman-Ottaway River (Grand Traverse County). The partnership will remove two dams that, if they were to catastrophically fail, would threaten the health of the watershed.

Lastly, as a matter of public safety and long-term infrastructure planning, Roberts Lake Dam in Cheboygan County will be removed and a culvert meeting modern standards for this location will be installed. The last inspection of the dam showed that it was in poor condition. That, combined with debris accumulation, jeopardizes the road that goes over the dam and increases the risk of flooding. Historical maps and documents suggest that a wetland complex should remain after removal of this dam, which was constructed in the 1940s to raise water levels 2-3 feet. Roberts Lake will be lowered incrementally, using best management practices to protect downstream habitat. The drawdown will not affect Cochran Lake, upstream of this location.

The availability of grant funding has enabled organizations working with the DNR on upcoming construction to pursue these high-priority projects. “The award of America the Beautiful funds has allowed Michigan Trout Unlimited to expedite the removal of two dams, with many more to come, providing invaluable benefit to coldwater streams in Michigan,” said Kristin Thomas, stream restoration director at Michigan Trout Unlimited.

“The Superior Watershed Partnership is pleased to be working with the Michigan DNR to remove three obsolete dams in the Upper Peninsula,” said the partnership’s senior planner, Geraldine Grant, referring to Big Trout Lake Fish Barrier, Carr Creek Fish Barrier and Dana Lake Pike Marsh dams. “Removal of these dams will benefit recreational users, address concerns with aging infrastructure, eliminate public safety risks, and improve river connectivity, aquatic organism passage and climate resiliency.”

Upon completion, nearly 200 upstream miles of Michigan rivers and streams will be reconnected, benefiting at-risk species like the eastern massasauga rattlesnake, pickerel frog, and fluted shell and elktoe freshwater mussels, along with countless other aquatic species.

All of the work for the America's Ecosystem Restoration Initiative project is expected to be completed by January 2027.

Looking ahead

This project may be halfway to the finish line, but dams remain a big challenge for the state of Michigan, especially when many dams weren’t designed for their current uses or to current construction standards.

Josh Leisen, senior project manager at Huron Pines, said, “Huron Pines recognizes the maintenance burdens and threats to freshwater resources that aging dam infrastructure poses across northern Michigan. Huron Pines will be managing the removal of two DNR Fisheries Division dam structures in 2025: the Mio Walleye Pond Dam in Oscoda County and the McAlpine Trout Pond Dam in Mackinac County *(shown above)*. These

projects will restore river processes and fish passage while eliminating deteriorating dams from the landscape."

Removing dams that pose ecological and public safety risks is a priority for the DNR. While dam removals come at a cost, and additional funding will be needed to finance removal projects, repairing and maintaining dams – especially those that no longer meet management goals and environmental best practices – is an even greater expense.

The DNR currently manages over 200 dams statewide, most of which were built well before modern construction techniques, engineering standards or regulatory safety guidelines. While funding to support removals and repairs has been difficult to secure, one bright spot is the $15 million Gov. Gretchen Whitmer has proposed in her budget for the next fiscal year to remove, maintain and conduct engineering studies on critical dams, improving community safety, restoring river health and enhancing wildlife habitats. Those dollars could go a long way in aiding the agency's ongoing effort to assess the condition and sustainability of dams, a critical part of the DNR's work in managing Michigan's natural resources.

More information about the America's Ecosystem Restoration Initiative is available at nfwf.org/programs/americas-ecosystem-restoration-initiative. To learn more about DNR dam management, visit Michigan.gov/DNRDams.

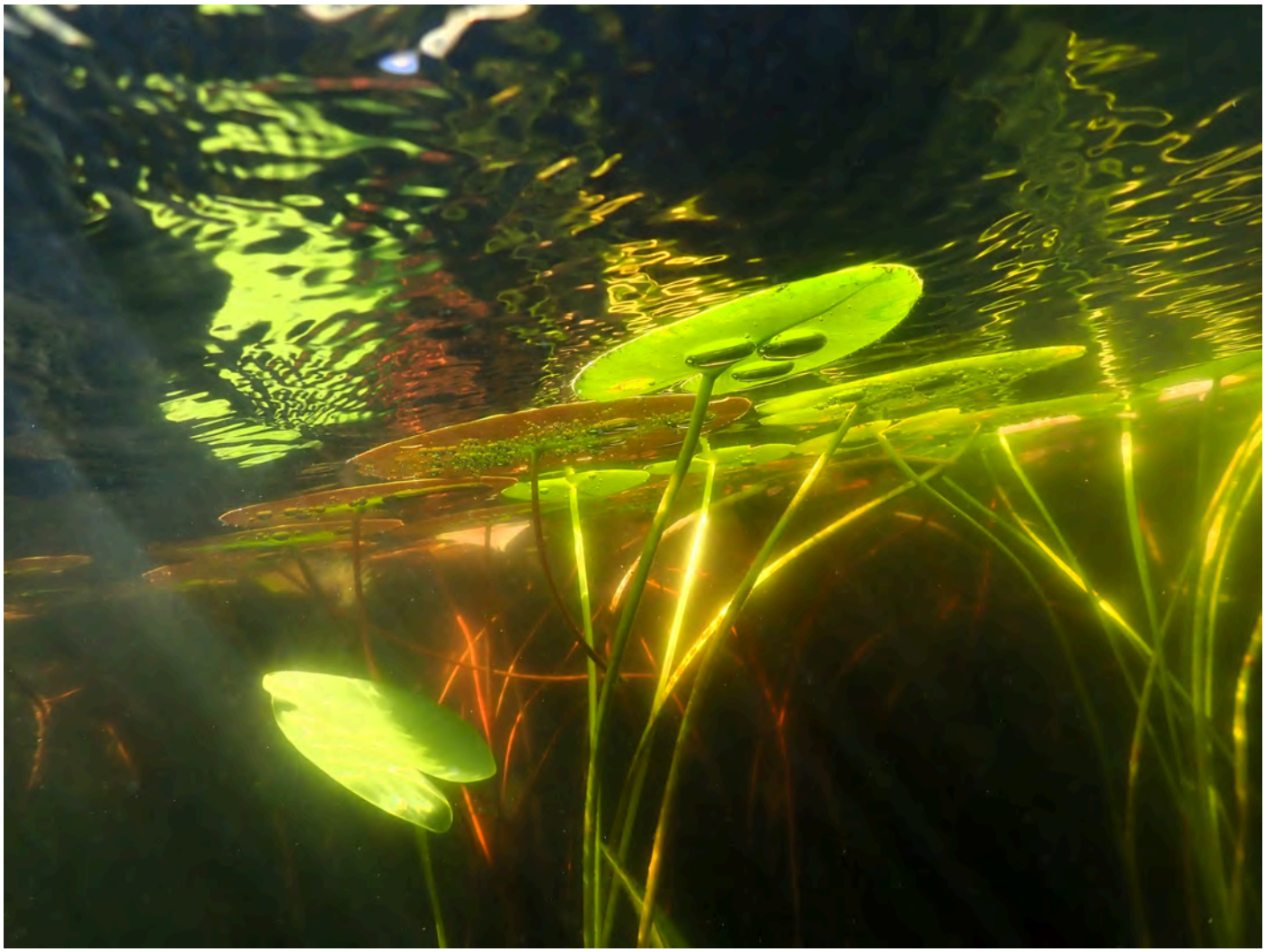


Photo by Scott Brown

Michigan Department of
Natural Resources
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August 11, 2025

Contact: Jeremiah Blaauw, 906-235-7679 or Aaron Switzer, 231-383-2565

Michigan DNR has stocked 18.9 million fish so far in 2025

Successful spring and summer fish stocking bodes well for fall fishing opportunities

April showers bring May flowers, and spring and summer fish stocking bring fall fishing! This spring and summer, the Michigan Department of Natural Resources stocked a total of 18,958,970 fish that weighed more than 331.5 tons and consisted of 10 different species and one hybrid.

Fish stocking is an important activity to provide both Michigan residents and visitors with quality fishing opportunities. These efforts help bring an estimated $3.9 billion into the state's economy through the sportfishing industry, tourism and related businesses.

To complete the task of stocking, it took 417 stocking trips and 2,345 hours. Crews traveled just over 91,000 miles in 17 specialized stocking trucks to get to the 716 stocking sites. Despite the severe ice storm that affected northern Michigan, which caused a loss of power and transition to backup power for several days at Oden State Fish Hatchery, no fish were lost due to the storm, allowing the DNR to meet its stocking goals.

"We had another excellent spring and summer stocking season that will bring ecological benefits and fishing opportunities to Michigan anglers," said Aaron Switzer, DNR fish production manager. "Thanks to the hard work and dedication of our staff, healthy, high-quality fish were reared and delivered to stocking sites in excellent condition. The numbers produced and stocked hit the targets for most areas."

The number and type of fish produced varies by hatchery, as each location's ability to rear fish depends on the source and temperature of the rearing water. Fish are reared in Michigan's state fish hatcheries anywhere from one to 18 months before they are stocked.

In Michigan, there are six state hatcheries and two cooperative hatcheries that work together to produce the species, strain and size of fish needed for fisheries managers. These fish must then be delivered and stocked at a specific time and location to ensure their success.

Each hatchery stocked the following fish this spring:

- Marquette State Fish Hatchery (near Marquette) stocked 368,452 yearling lake trout, brook trout and splake (a hybrid of lake trout and brook trout) that in total weighed 49,355 pounds. In addition to yearling trout, Marquette also stocked 457 adult lake and brook trout. This hatchery stocked a total of 94 inland and Great Lakes sites.
- Thompson State Fish Hatchery (near Manistique) stocked 2,397,307 fish, which included yearling steelhead, spring fingerling Chinook salmon, yearling muskellunge and spring fingerling walleye. These fish weighed 69,598 pounds in total. This hatchery stocked 51 sites, the majority located on the Great Lakes.
- Oden State Fish Hatchery (near Petoskey) stocked 737,604 yearling brown trout and rainbow trout that in total weighed 129,072 pounds. Oden also stocked 6,270 adult

brown and rainbow trout that in total weighed 12,330 pounds. This hatchery stocked 98 inland and Great Lakes sites.

- **Harrietta State Fish Hatchery (in Harrietta) stocked 825,388 yearling brown trout and rainbow trout that in total weighed 117,875 pounds. This hatchery stocked 171 sites, the majority located inland.**
- **Platte River State Fish Hatchery (near Honor) stocked 4,892,188 fish, which included yearling Atlantic salmon and coho salmon and spring fingerling Chinook salmon that in total weighed 157,584 pounds. Platte River also stocked 31,722 Skamania steelhead obtained from the Indiana Department of Natural Resources that in total weighed 4,209 pounds. This hatchery stocked 30 sites, the majority located on the Great Lakes.**
- **Wolf Lake State Fish Hatchery (near Kalamazoo) stocked 7,198,561 fish that included yearling steelhead and spring fingerling Chinook salmon, which in total weighed 122,878 pounds. Wolf Lake also stocked 29,759 channel catfish obtained from the Ohio Department of Natural Resources that in total weighed 758 pounds. This hatchery stocked 49 sites, the majority located on the Great Lakes.**
- **A cooperative teaching hatchery at Lake Superior State University (in Sault Saint Marie) stocked 23,378 Atlantic salmon weighing 1,811 pounds into the St. Marys River.**

Included in this year's total are just over 2.5 million walleye spring fingerlings. These fish were reared in ponds by the DNR, with extensive support provided by local sporting organizations. These fish were stocked at 61 inland lakes and rivers and Lake Michigan.

Some hatcheries will also provide fish for a few additional stockings – consisting of brook trout, Atlantic salmon, walleye, lake sturgeon and muskellunge – to be made this fall. The lake sturgeon will come from the cooperative hatchery in Tower, Michigan, operated with Michigan State University.

The public is welcome at any of Michigan's state fish hatcheries to see the fish-rearing process firsthand. For more information or to plan your trip, visit Michigan.gov/Hatcheries.

To find out where many of these fish were stocked, check out the DNR's Fish Stocking Database at MichiganDNR.com/FishStock.

Photo by Scott Brown

EGLE MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Training and Outreach

WEBINAR

Septic Smart 2025: Septic Systems and the Environment

Monday, September 15, 9:00 - 10:00 AM EST

Michigan's residents rely on over 1.3 million septic systems to treat the wastewater generated in their homes. Proper septic system use and routine care are vital to protecting public health and preserving our highly valued groundwater, lakes, streams, and waterways. Learning about septic systems can help you avoid costly repairs.

The Department of Environment, Great Lakes, and Energy's (EGLE) Onsite Wastewater Program is kicking off Septic Smart Week with this 1-hour webinar, which will be recorded and shared with all webinar registrants.

Webinar attendees will learn about:

- **the basics of septic systems,**
- **septic systems and the environment, and**
- **septic system operation and maintenance tips.**

You'll leave this webinar with access to educational materials, a better ability to manage your septic system, and a stronger understanding of how to be a good steward of the environment.

The Septic Smart program is a nation-wide initiative to share information on the proper care and maintenance of septic systems and encourage public stewardship in caring for these systems. For more information, visit epa.gov/septic.

While this webinar is targeted to homeowners served by a septic system, all interested persons are welcome to attend. Mark your calendar and register today!

REGISTRATION AND INFORMATION

Do your Part – Be Septic Smart!

NotMISpecies Webinar Series

Invasive species pose a threat to Michigan's environment, economy, and sometimes even human health. What is at stake? What is being done? This webinar series explores how agencies, universities, and locally led organizations are working together to protect Michigan's natural resources through the Michigan Invasive Species Program. If you are concerned about the impacts of invasive species or interested in the techniques used to control them, join us as we examine species-specific actions, innovations in research and technology, and programs designed to help communities prevent and manage harmful invasive species. A question-and-answer period will follow each presentation. Recorded versions of all previous NotMISpecies webinars are available at Michigan.gov/EGLE/Outreach under "All Webinar Series."

Upcoming webinars in the series

Wednesday, August 27, 2025, 9:00 a.m. to 10:00 a.m.

They'll need that hug: How climate change is increasing native and invasive threats to Michigan's trees (Rescheduled)

Invasive insects and diseases, including hemlock woolly adelgid, beech bark and beech leaf disease, are taking a toll on Michigan's forests. As if this weren't enough, the changing climate is further stressing trees and may lead to greater impacts by both invasive and native insects and diseases.

Join forest entomologist Erin Biggs and forest pathologist Simeon Wright of the Department of Natural Resources to learn more about these emerging issues, how they are being addressed, and which may have the biggest impact on Michigan's forests and urban landscapes.

Michigan.gov/EGLEevents

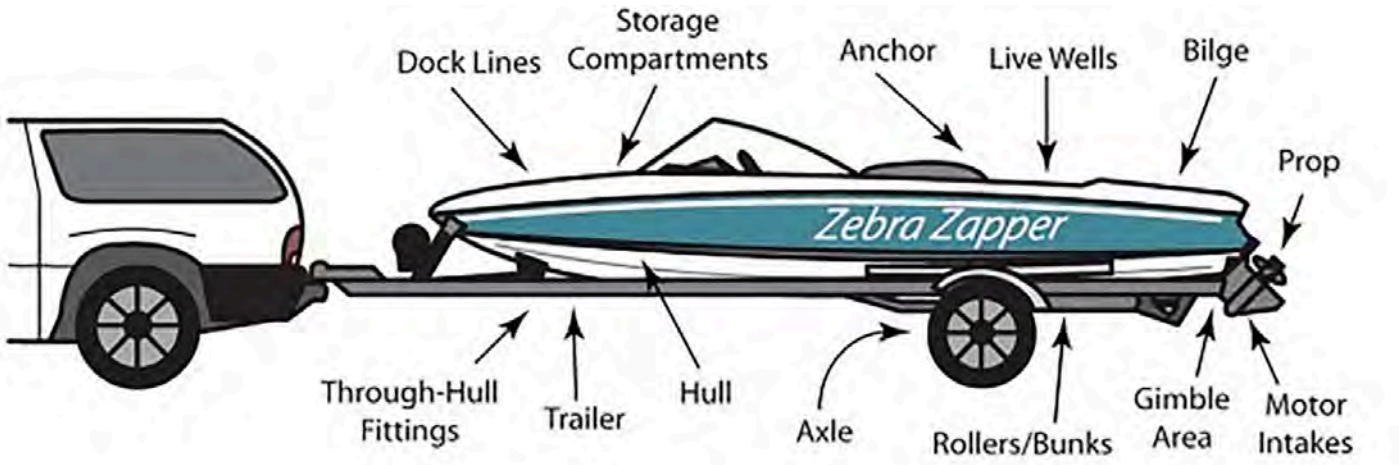
REGISTRATION QUESTIONS:

Joel Roseberry: RoseberryJ@michigan.gov

Alana Berthold: BertholdA@michigan.gov

www.shorelinepartnership.org

Michigan Invasive Species Program



Bringing a boat

When a watercraft is part of your fishing routine, remember to "Clean, Drain and Dry" boats, trailers and all equipment and gear after each use on any lake, river or stream. State law requires:

- **Making sure watercraft and trailers are free of all aquatic organisms and plants before transporting or launching.**
- **Removing drain plugs and draining all water from bilges, ballast tanks and live wells before transporting watercraft over land.**

Drying boats, trailers and gear is an important step to ensure live organisms, like hard-to-see zebra mussel larvae, plant fragments and didymo cells, don't travel to the next fishing spot. Between sites, do one of the following:

- **When possible, dry boats, trailers and gear in the sun for five to seven days.**
- **Wash boats and trailers with a pressure washer.**
- **Apply a chemical disinfectant like those listed above.**
- **Dry surfaces with a towel.**

Preventing the introduction and spread of invasive species is the responsibility of everyone who uses Michigan's valuable fresh-water resources. For more information on invasive species and prevention methods, visit Michigan.gov/Invasives.

Michigan's Invasive Species Program is cooperatively implemented by the Michigan departments of Agriculture and Rural Development; Environment, Great Lakes, and Energy; and Natural Resources.

2025 MGLP Lake Conservation Webinars

We are excited to announce our 2025 Lake Conservation Webinars, which start next week!

These free webinars address a diverse range of lake and fish habitat management issues such as aquatic plants, algal blooms, national lake water quality mapping, conservation planning, practices for managing farm drainage and runoff, fish habitat structures, Walleye spawning and stocking, and disproportionate monitoring relative to communities of color.

Check out our lineup below and register using the links provided. You can view the full list of webinars plus recordings of past webinars on our Lake Conservation Webinars webpage.

Walleye stocking success in the Midwestern USA

Daniel Isermann and Robert Davis

October 7, 2025 at 1 PM Central

Register for webinar

This study evaluated stocking success of Walleye in lakes and reservoirs across the Midwestern United States to inform stocking practices for state agencies. Demand for Walleye stocking may increase if climate change limits the potential for natural recruitment in lakes. Consequently, the strategic distribution of Walleye stocking may maximize fishing opportunities. Latitude and year explained relatively little variation in stocking success compared to within-lake variation. Relative abundance of Largemouth Bass was an important indicator of Walleye stocking success for fry and fingerlings, with stocking success generally decreasing with increased bass abundance. There was an interaction between lake surface area and growing degree-days, as large lakes (>2500 ha) seemed to be more conducive to Walleye stocking success regardless of growing degree-days. These findings may help to inform the management and stocking allocation of Walleye and suggest that future increases in Largemouth Bass abundance and growing degree-days could limit the effectiveness of stocking in some lakes.

Expect the unexpected: Physical drivers of harmful algal blooms in remote systems

Adam Heathcote

October 14, 2025 at 1 PM Central

Register for webinar

Harmful algal blooms (HABs) are often linked to external nutrient inputs from anthropogenic phosphorus pollution or atmospheric nitrogen deposition. However, the increasing occurrence of blooms without these inputs has shifted attention to internal drivers. Recent research highlights internal phosphorus loading from sediments, driven by changing stratification patterns, as a key trigger. We present examples from wilderness to hypereutrophic lakes, where HABs occur or intensify due to anoximixis. Using high-frequency sensors and traditional monitoring, we compare bloom timing and intensity with factors such as hypolimnetic phosphorus accumulation, mixing frequency, and cyanotoxin production. Our findings emphasize the need to understand anoximixis as climate change alters lake stratification and accelerates oxygen depletion. These changes may lead to more

toxic blooms in affected systems and trigger blooms in lakes previously thought to be resistant.

Smart maps, stronger conservation: Targeting land protection with GIS

Annie Knight, Ally Mazurek, Mitch Brinks, and Paul Radomski

October 21, 2025 at 1 PM Central

Register for webinar

Northern Waters Land Trust (NWLT) will be presenting on their MGLP-funded project, which developed an interactive GIS mapping tool to identify and prioritize land protection projects within the watersheds of Lakes of Outstanding Biological Significance. In collaboration with a Minnesota DNR researcher, a GIS specialist, and NWLT staff, each parcel within these sensitive watersheds was systematically scored to determine conservation priority. Join this session to learn exactly what metrics were used to evaluate parcels, how the data were integrated into GIS, and how NWLT applies this tool to enhance targeted outreach. This innovative approach has led to a higher volume of landowner applications, increased the quality of land protection projects, and strengthened NWLT's ability to secure funding for future conservation efforts. Discover how scientific methodology and strategic mapping are shaping the future of land conservation in northern Minnesota.

Register to learn about environmental regulations and how they affect your community!

Join the Michigan Department of Environment, Great Lakes, and Energy (EGLE) for this free monthly webinar series, to learn how to address environmental issues in your community. Each month, EGLE will host a 1-hour webinar that will tackle a topic of interest to local officials and community leaders throughout the state. Topics will include odors, wetlands, inland lakes, septic systems, contaminated property, illegal dumping, and more.

Each webinar will include a presentation by EGLE staff and time for questions from attendees. All webinars will be recorded and a link to the recordings will be shared with all registrants, after each session. More information about the series, including upcoming webinars and recordings of past webinars, can be found on the series webpage.

Upcoming webinars in the series

Michigan.gov/EGLEevents

Program Questions:

Jim Ostrowski: Ostrowskij2@Michigan.gov

Registration Questions:

Alana Berthold: BertholdA@Michigan.gov

Our long term vision is to address Michigan's most pressing lake, stream, and watershed conservation and stewardship challenges and provide research-based, timely support to clientele and partners.

The Center for Lakes and Streams streamlines lake and stream research, engagement, and education activities at the university and highlights the many programs MSU Extension and its partners offer throughout the state. The MSU Extension Center for Lakes and Streams is not a physical center with a brick-and-mortar headquarters. It is a team of Extension educators and outreach faculty based throughout Michigan with a shared mission of advancing the conservation and stewardship of Michigan's inland lakes and streams.

To achieve this vision, the Center will welcome affiliated faculty from various departments at MSU and will invite external stakeholder input. Affiliates and stakeholders will support the work of the Center by identifying emerging issues and assisting with the prioritization of research and education activities. The Center will welcome stakeholder input from

diverse perspectives, including state agencies, tribal partners, other Michigan universities, local and regional decision makers, agricultural producers, and nonprofit, community and riparian organizations.

Want to learn more?

Reach out to the Center for Lakes and Streams Director Dr. Jo Latimore at latimor1@msu.edu.

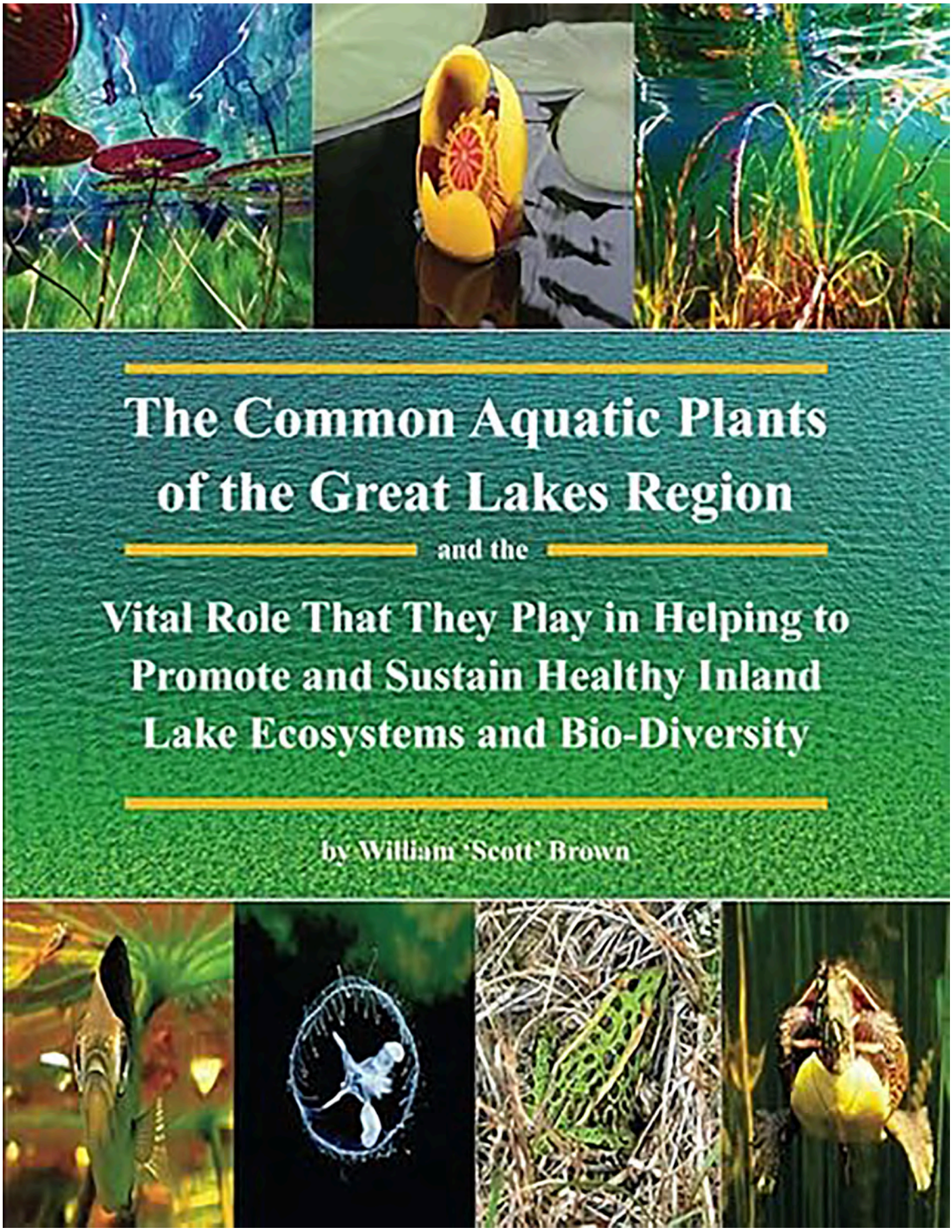
Please join Michigan Waterfront Alliance!

We Need the Support of People Like You Who Care about Preserving and Protecting our Extraordinarily Valuable Freshwater Resources for Future Generations Now!!!

- **Are you tired of funding the management of aquatic invasive species on your lake that were introduced by recreational boaters using the local MI Department of Natural Resources owned and operated public boating access site?**
- **Are you just a bit angry that recreational boaters using your lake are not being asked to contribute their fair share to combat the negative influences of aquatic invasive species?**
- **Are you worried about the fact that your lakefront residential property values are being negatively influenced by the steadily increasing presence of aquatic invasive species?**
- **Are you concerned about the fact that it is nearly impossible to find an inland lake in Michigan that does not currently host one or more potentially harmful aquatic invasive species?**
- **Are you aware of the fact that inland lakes are Michigan's most valuable natural resource, and that our state legislature has thus far appropriated almost nothing in the way of budget resources to help ensure they remain healthy and viable?**

If your answer is yes to any of these important questions, please help ensure that your voice is heard in Lansing by joining Michigan Waterfront Alliance today.

Click here to join Michigan Waterfront Alliance today !!!



The presence of a healthy native aquatic plant community whose growth extends from a thriving natural shoreline or from near shore shallow waters into areas of the lake's glacier

carved basin hosting relatively deep water serves as a remarkably reliable bio-indicator of the existence of clear sunlight inundated waters, moderate biological productivity, an array of fish species and many other freshwater ecosystem dependent creatures, and good overall water quality. Comprised of a diverse assemblage of large aquatic plants that are referred to as macrophytes, abundantly growing macrophyte communities help to establish and sustain a multitude of vital interactive biological and ecological functions that make important contributions to helping preserve the overall health of tens of thousands of moderately productive inland lakes in the Laurentian Great Lakes region.

Available for purchase as a paperback on Amazon by

clicking here

A percentage of profit derived from the sale of this book will be

donated to help sustain the on-going Lansing-based lobbying

efforts of Michigan Waterfront Alliance...

---The Problem is Real---

The loss of natural shorelines is the biggest threat

to the overall health of Michigan lakes

National Lakes Assessment

Shoreland development is impacting Michigan's lakes causing issues such as poor water quality, erosion, and loss of fish and wildlife habitat. Taking action on your property now can help reverse these effects and protect the health of your lake.

To learn more about the mission, goals, and unique educational opportunities provided by the

Michigan Natural Shoreline Partnership

Click here

PLEASE CONSIDER BECOMING A MICHIGAN WATERFRONT ALLIANCE MI HEALTHY LAKES CHAMPION TODAY!!!

YOUR GENEROUS DONATION OF $250, $500, or $1,000 WILL AMPLIFY OUR CAPACITY TO LOBBY FOR THE PASSAGE OF COMMON SENSE LEGISLATION THAT IS PENDING IN LANSING IN REGARDS TO REGULATING WAKE BOATS AND SEPTIC TANKS!!! AS OUR READERS ARE WELL AWARE, OUT OF CONTROL WAKE BOATS ARE DAMAGING OUR LAKES, AND TENS OF THOUSANDS OF DYSFUNCTIONAL SEPTIC SYSTEMS ARE DEGRADING OUR LAKES, RIVERS, STREAMS, AND GROUNDWATER!!!

TO BECOME AN MWA MI HEALTHY LAKES CHAMPION

CLICK HERE

Events Listing

All times Eastern. "$" indicates there may be a cost to participate.

September 4, 1:00 PM: Managing stormwater runoff on your shoreland property - Minimizing your impacts. Presented by John "JB" Bilotta, University of Minnesota Water

Resources Center; and Maggie Karschnia, University of Minnesota Sea Grant and Water Resources Center. Host: Itasca Waters.

October 2, 1:00 PM: Traditional ecological knowledge in lake management. Host: Itasca Waters.

October 7, 2:00 PM: Walleye stocking success in the Midwestern USA. Presented by Daniel Isermann, US Geological Survey - Wisconsin Cooperative Fishery Research Unit, University of Wisconsin Stevens Point; and Robert Davis, Young Harris College. Host: Midwest Glacial Lakes Partnership.

October 14, 2:00 PM: Expect the unexpected: Physical drivers of harmful algal blooms in remote systems. Presented by Adam Heathcote, Science Museum of Minnesota, St. Croix Watershed Research Station. Host: Midwest Glacial Lakes Partnership.

October 21, 2:00 PM: Smart maps, stronger conservation: Targeting land protection with GIS. Presented by Annie Knight and Ally Mazurek, Northern Waters Land Trust; Mitch Brinks, GIS specialist; and Paul Radomski, Minnesota Department of Natural Resources. Host: Midwest Glacial Lakes Partnership.

October 22: Great Lakes Microplastics Summit (*virtual event*). Host: Michigan Department of Environment, Great Lakes, and Energy.

November 6, 1:00 PM: Mystery snail impacts on lake ecosystems. Presented by Sarah Kingsbury, Fisheries and Oceans Canada. Host: Itasca Waters.

December 2-4: 2025 Great Lakes Virtual PFAS Summit. Host: Michigan Department of Environment, Great Lakes, and Energy.

December 4, 1:00 PM: Water wishes for the holidays. Presented by John Downing, Hilarie Sorensen, Sawyer Lorentz, and Holly Ristau, Minnesota Sea Grant. Host: Itasca Waters.

NEW December 5: 2025 Annual MiCorps Conference *(Michigan's volunteer lake and stream monitoring program)*. Host: Michigan Clean Water Corps.

You may also wish to explore these websites for additional events, recordings of past events, and more:

Michigan Inland Lakes Convention presentation recordings

Michigan Lakes and Streams Association

Michigan State University Extension Center for Lakes and Streams

Midwest Glacial Lakes Partnership

North American Lake Management Society

MICHIGAN WATERFRONT ALLIANCE

Please join Michigan Waterfront Alliance!

We Need the Support of People Who Care about Preserving and Protecting our Extraordinarily Valuable Freshwater Resources for Future Generations Now!!!

- **Are you tired of funding the management of aquatic invasive species on your lake that were introduced by recreational boaters using the local MI Department of Natural Resources owned and operated public boating access site?**

- **Are you just a bit angry that recreational boaters using your lake are not being asked to contribute their fair share to combat the negative influences of aquatic invasive species?**

- **Are you worried about the fact that your lakefront residential property values are being negatively influenced by the steadily increasing presence of aquatic invasive species?**

- **Are you concerned about the fact that it is nearly impossible to find an inland lake in Michigan that does not currently host one or more potentially harmful aquatic invasive species?**

- **Are you aware of the fact that inland lakes are Michigan's most valuable natural resource, and that our state legislature has thus**

far appropriated almost nothing in the way of budget resources to help ensure they remain healthy and viable?

If your answer is yes to any of these important questions, please help ensure that your voice is heard in Lansing by joining Michigan Waterfront Alliance today.

Click here to join Michigan Waterfront Alliance today !!!

MICHIGAN WATERFRONT ALLIANCE

Please Consider Donating, and/or Becoming a Dues Paying Member of Michigan Waterfront Alliance Today

Please don’t count on others to support the only organization in Michigan that is completely dedicated to voicing your legitimate concerns to our state legislators in Lansing.

We hire professional lobbyists - Karoub Associates - who understand the intricacies of dealing with state government - to reach out to our legislators. As you might imagine, the cost of hiring a professional, highly respected Lansing-based lobbying firm whose downtown Lansing office is located within a literal stone's throw of Michigan's state capitol building is expensive - we believe, however, that to have someone in constant contact with our state senators and representatives it is more than worth the significant on-going expense.

To put it in blunt "no ifs, ands, or buts" terms, without your generous support we will be unable to continue our erstwhile efforts in Lansing.

If not you, then who?

We need you!

Michigan Waterfront Alliance (MWA) is the only all-volunteer non-profit organization in Michigan that is dedicated to reaching out on a daily, pro-active basis to our state representatives and senators about their on-going need to act now to protect our precious inland lakes, wetlands, rivers, and streams.

Please do not expect other lake associations, other individuals, and other corporations to fund MWA's efforts in Lansing.

If you want your voice to be heard in Lansing you need to be the other lake association, the other individual, and the other corporation to make a generous contribution to helping fund our on-going efforts in Lansing.

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Please also remember that with the exception of a few relatively minor expenses related to keeping our website updated, and on-line, and a few relatively minor costs associated with distributing our e-newsletter, all of our membership and donation derived income goes to paying our downtown Lansing-based lobbying firm, and our attorneys. No exorbitant employee salaries or fringe benefit packages to pay!!!!!!!!!

It is also important to note that last year Michigan Waterfront Alliance lawyers took a case all the way to the Michigan Supreme Court in order to get the State of Michigan to do it's job in protecting our lakes, rivers, streams, and wetlands.

Thank you for reading and considering this hopefully convincing appeal for donations - no amount is considered too small - all donations of money are happily received and acknowledged within the context of the generous spirit that prompted them!!!!!!!!

Click here to become a dues paying member of MWA

Click here to make a generous donation to MWA

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Click here to join Michigan Waterfront Alliance today...!!!

ATTENTION READERS!!!

In order to add your friends, neighbors, and/or fellow lake or watershed conservation focused association member e-mails to our growing list of water resource conservation minded people who would like to receive this Michigan

freshwater resources focused twice monthly newsletter, contact Editor Scott Brown at scottb1952@gmail.com

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