
Michigan Waterfront Alliance Update for Tuesday, April 15, 2025

1 message



Photo by Scott Brown

Welcome to the Michigan Waterfront Alliance

Update for Tuesday, April 15, 2025



**MICHIGAN
WATERFRONT
ALLIANCE**

Michigan **W**aterfront **A**lliance

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.



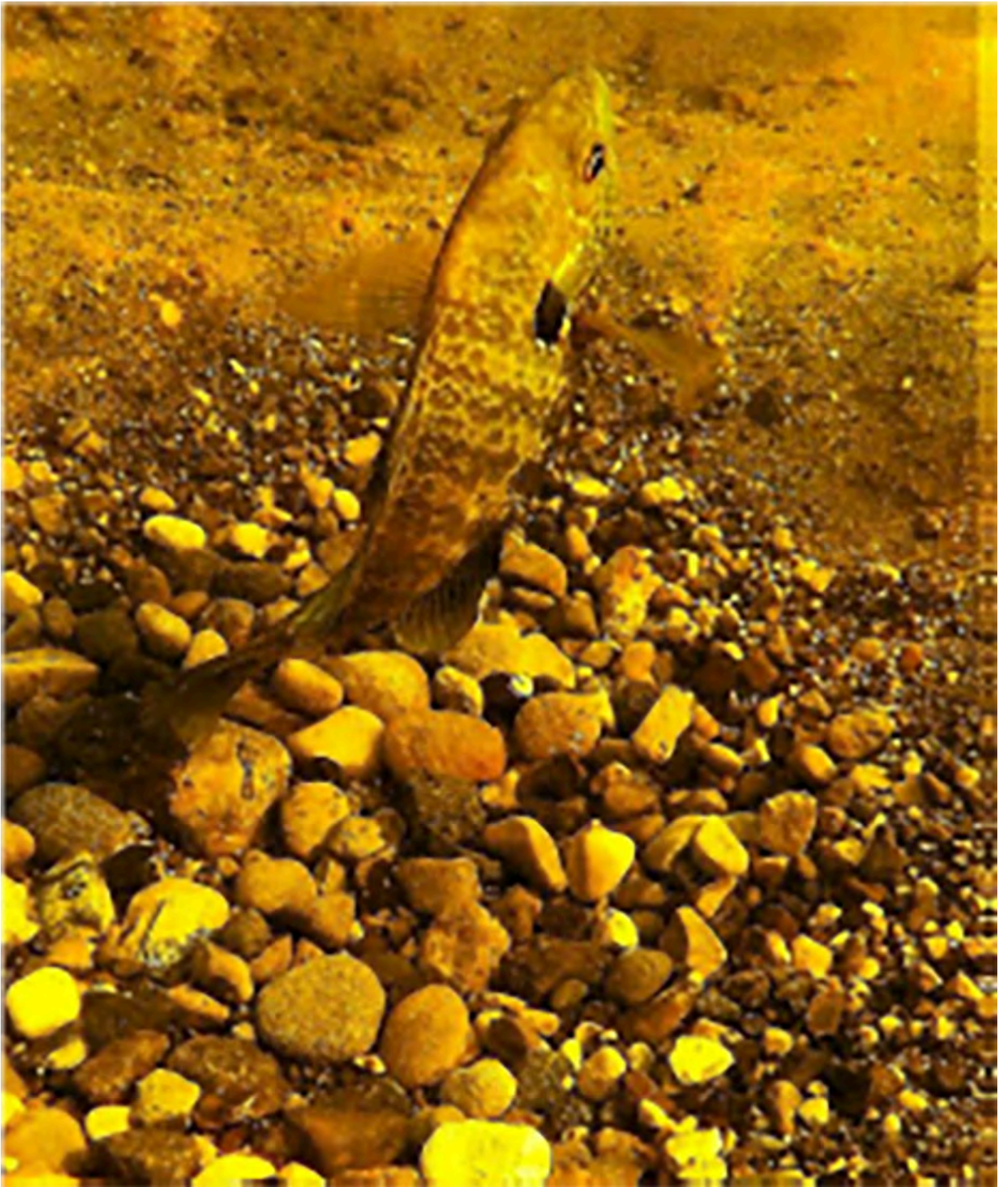
facebook



Bluegill spawning beds



Male bluegill on his nest



Male bluegill preventing sediment from accumulating in his nest

The Onset of Spring and Warming Water Temperatures Prompts the Annual

Spawning Cycle of Bluegill, Largemouth Bass and Other Sunfish Species in the Shallows of Thousands of Michigan Inland Lakes

Wise Lake Associations Identify and Protect Vital Sunfish Spawning Beds from the Harmful Influences of Recreational Boaters and Fisherman

Article and Photos by

Scott Brown

MWA e-Newsletter Editor

Occurring in response to longer periods of daylight and as the gradually warming water temperatures of mid-to-late spring and early summer reach 60 to 70 degrees, several members of the sunfish family that inhabit thousands of Michigan's inland lakes including bluegill, red ear sunfish, pumpkinseed, green sunfish, and largemouth bass migrate from their deep water winter habitat to areas of their lake hosting shallow waters to begin their annual spawning cycle.

Sunfish spawning beds are most often observed near the outer most edges of aquatic plant meadows and/or near areas of the lake's bottom hosting woody debris in water depths ranging from eighteen inches (1.5') to five feet (5.0'). Sunfish spawning beds often consist of hundreds of nests lying in close proximity to one another. Sunfish spawning beds are often located near submerged aquatic plant meadows or areas hosting woody debris due to the fact that the complex habitat provided by aquatic plants and/or woody debris plays a critical role in helping to sustain inland lake fish populations by forming protective habitat that allows hatchling and juvenile fish to avoid predation, and by providing a prey rich environment that enables the fledgling ability of young fish to successfully forage for life sustaining food.

The annual spawning process begins as the male of the species uses his pelvic, anal, and tail fins to create gravel and stone filled depressions that serve as protective nests in the

sediment. It is important to point out that the act of creating a nest is often sufficient for the male sunfish to attract a suitable female mate. The reproductive process continues as the female deposits thousands of tiny eggs into the protected interstitial spaces that lie between the gravel and stone within their nests. With her critical role now complete, the female of the species leaves the spawning area. In addition to continuing the reproductive process by fertilizing the eggs within his nest with his sperm, the male of the species proactively protects the now fertilized eggs by hovering over the nest and aggressively chasing away hungry predators seeking a protein rich meal consisting of fish eggs, and by using his tail to prevent sediment from accumulating on the now fertilized eggs in the nest (see the photo above). The male continues to protect his nest up to the point that the eggs develop into tiny hatchlings that are capable of venturing into protective habitat comprised of nearby aquatic plant meadows or areas hosting woody debris that also provide a prey rich environment that enables the fledgling ability of young fish to successfully forage for life sustaining food.

Concentrated in shallow areas of inland lakes protected from wind and waves, sunfish spawning beds often consist of hundreds of individual nests that during late spring and early summer are each tended to by adult male sunfish. It is important to point out that sunfish spawning beds are highly vulnerable to damage and the potential loss of millions of developing eggs due to the propeller wash of watercraft operating in shallow waters. The turbulence created by prop wash acts to flush tiny fish eggs out of their protective nests - thereby destroying the eggs and/or making them vulnerable to being consumed by predators. The adult males that protect each of the nests are also highly vulnerable to being caught by recreational fisherman - the loss of the nest's protective male all but ensures that the eggs within the nest will be consumed by predators or smothered by sediment.

Lake associations, individual lake users and recreational fisherman can help support the capacity of our bluegill, our red ear sunfish, our pumpkinseeds, our green sunfish and our largemouth bass to successfully reproduce by:

- Identifying areas of their lake hosting sunfish spawning beds and by taking steps to protect sunfish spawning beds and the fish engaged in the annual reproductive cycle;

- Refraining from operating their watercraft in shallow areas of inland lakes that may be hosting sunfish spawning beds;
- Supporting spawning sunfish by not fishing in areas of the lake hosting spawning beds;
- Not taking the maximum number of sunfish allowed under Michigan law - taking the maximum number of fish allowed under the law is not a sustainable practice - by practicing "catch and release" you help ensure sustainable populations of largemouth bass, bluegills, and other sunfish species into the future;
- Practicing "catch and release" in late spring and early summer in order to protect male sunfish that maybe pro-actively engaged in protecting their nests;

It is important to note that lake associations seeking to protect and support the reproductive efforts of the several sunfish species that inhabit most of our inland lakes should seek to educate their members in regards to the presence of spawning beds and the need to help protect those areas in late spring and early summer in order to help ensure the continued existence of a healthy, diverse fishery. Lake management companies are capable of identifying areas of your lake hosting sunfish spawning beds.

To learn more about the several sunfish species that inhabit Michigan's inland lakes, point your internet browser to the sunfish info dedicated MI DNR web page :

<https://www.michigan.gov/dnr/education/michigan-species/fish-species/sunfish>



Photo by Scott Brown

Eurasian Water Milfoil

Scientific Name: *Myriophyllum spicatum*

SHORELINE & SHALLOWS CONFERENCE

SAVE THE DATE!
October 17, 2025
Kellogg Conference Center

www.shorelinepartnership.org



www.shorelinepartnership.org



**Michigan
Department of
Natural Resources**

DNR News

April 10, 2025

Contact: [Ron Olson](#), 517-243-1477

DNR ice storm cleanup updates: State parks, trails, campgrounds and boating access sites

Following severe ice storms in northern Michigan, Department of Natural Resources staff members are assessing damage and conducting cleanup at several state parks, state park campgrounds, state forest campgrounds, boating access sites and state-managed trails.

DNR crews are also collaborating with local agencies and utility companies to clear debris, prioritize the restoration of essential services and ensure access to critical infrastructure. Much of the work is being coordinated with the Michigan Army National Guard.

Gov. Gretchen Whitmer declared a 12-county disaster area last week, which includes Alcona, Alpena, Antrim, Charlevoix, Cheboygan, Crawford, Emmet, Mackinac, Montmorency, Oscoda, Otsego and Presque Isle counties.

As a result, the DNR temporarily closed several state parks, state park campgrounds, state forest campgrounds, boating access sites and state-managed trails until safe access can be restored, including hazardous tree assessment and removal.

State park, campground, overnight lodging closures

The DNR anticipates that the majority of affected state park campgrounds and overnight lodging locations will open by their scheduled spring 2025 opening dates, with associated state parks opening the same day. However, some parks, state park campgrounds and lodging locations may require extra preparation time, causing openings to be postponed by a couple of weeks.

Currently, Clear Lake State Park is the only campground with a known delayed opening, likely by two to four weeks.

"We understand the public concerns and questions regarding the extent of damage and closures following the storm," said Ron Olson, chief of the DNR Parks and Recreation Division. "With public road and infrastructure work progressing, staff is now focused on restoring outdoor recreation access. We anticipate reopening many of these locations within the next few weeks."

Olson also stated that the DNR anticipates nearly all reservations will be honored. To date, approximately 30 reservations have been moved. While a few more cancellations are

possible, staff is working diligently to meet those season opening dates.

Depending on the location, seasonal campground opening dates typically take place April 22, May 1 or May 15. Most state day-use areas are open year-round.

To find an updated list of closures, visit Michigan.gov/DNRClosures and search “ice storm.”

State-managed trail closures

All state-managed trails in the affected northern Michigan counties under the disaster designation remain temporarily closed. These trails will reopen individually as assessments and cleanup are completed.

While the exact timeline is currently unknown, trails staff anticipates a phased reopening over the next several weeks.

State forest campground and boating access site closures

Several state forest campgrounds and boating access sites are either delayed in opening or will not open on schedule. The DNR anticipates a phased reopening over the coming weeks, though specific timelines for each location are currently unavailable.

To find an up-to-date list of closures, visit Michigan.gov/DNRClosures and search “ice storm.”

Community updates

- Don't dump debris on state land: To help with cleanup efforts, 17 public debris disposal sites are now open to serve the 12-county disaster area. A map of these locations is included in the 2025 Northern Michigan Ice Storm dashboard at Michigan.gov/MSP. Some locations are accepting tree debris only, and others will accept all vegetative debris. *Note that it is unlawful to dump or dispose of debris on public lands or property. Be aware that moving vegetative debris can spread invasive insects, plants and diseases.*
- Interactive map shows northern Michigan roads now open: A [new interactive map](#) provides a tool for people to track roads that are now open following the massive ice storm in northern Michigan. All roads on the map were identified as public safety priorities by the State Emergency Operations Center and were cleared of debris by the DNR Incident Management Team, along with the Michigan National Guard and other cooperators.

Helpful resources

- Gov. Whitmer's Michigan.gov/IceStorm webpage, an online resource for Michigan residents affected by severe winter weather in northern Michigan.

- To help prepare for future, the Michigan State Police MIREADY program has planning and preparation tips for a variety of situations. Learn more at Michigan.gov/MIREADY.
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Photo by Scott Brown

Bluegill

Scientific Name: *Lepomis macrochirus*

Local Leaders webinar series



Floodplains 101: What you need to know about the floodplains in your community

April 15, 2025, 10:00 - 11:30 AM

Is there a waterbody that runs through, or near your community? In Michigan, more than 1,000 communities participate in the FEMA National Flood Insurance Program (NFIP) and an even greater number have unmapped flood zones, yet every waterbody has the potential to flood. This webinar is an opportunity to learn about floodplain management, the flood provisions in Michigan Building Codes, and EGLE's Floodplain Authority found in state regulations. We will discuss what a floodplain is, what activities require a permit, floodplain development administrative responsibilities, and reviewing an Elevation Certificate. This course is designed for anyone involved in development within your community such as supervisors, clerks, building officials and inspectors, engineers, and surveyors.

[REGISTER for Floodplains 101](#)

Inland Lakes - what you need to know and how EGLE regulates (and doesn't regulate) construction projects on inland lakes

April 29, 2025, 10:00 - 11:00 AM

Michigan is blessed with an abundance of inland lakes; however, lakes present unique challenges and issues to residents who reside near them. Accessing the water, shoreline protection, and creating an healthy lake environment often come up as issues to be addressed. Several types of projects and activities in and around lakes and streams are regulated by EGLE. Learn what types of construction-based projects may require a permit.

[REGISTER for Inland Lakes: What you need to know and how EGLE regulates.....](#)

Onsite Septic Systems and Septic Replacement Loan Program

May 21, 2025, 10:00 - 11:00 AM

More than 1.3 million homes and businesses in Michigan depend on septic systems to treat wastewater. If not maintained, failing septic systems can contaminate groundwater and harm the environment by releasing bacteria, viruses, and household toxics to local waterways.

This informative session will cover septic system operation and maintenance practices and steps to take if you have a septic system problem. This session will also include an update on the Michigan Septic Loan Replacement Program.

[REGISTER for Onsite Septic Systems and Septic Replacement Loan Program](#)



Photo by Scott Brown

Green Sunfish

Scientific Name: *Lepomis cyanellus*



DNR Public Meetings

March 20, 2025

Wildlife, fisheries and parks on the agenda for DNR's April meetings

The Department of Natural Resources is committed to providing Michigan residents the opportunity to share input and ideas on policy decisions, programs and other aspects of natural resource management and outdoor recreation opportunities.

One important avenue for this input is at meetings of the public bodies that advise the DNR and, in some cases, also set policies for natural and cultural resource management.

Frequently check the [DNR boards, commissions, committees and councils webpage](#) for updates.

The links below will take you to the webpage for each group, where you will find meeting details such as location and agenda (when finalized). Please check these pages often, as meeting details may change and sometimes meetings are canceled.

April meetings

- [Belle Isle Park Advisory Committee](#) – Thursday, April 17, 9 a.m. (Contact: Barbara Graves, 517-284-6135).
- [Board of Foresters](#) – Monday, April 28, 3 p.m. (Contact: Matt Watkeys, 906-458-6965).
- [Coldwater Resources Steering Committee](#) – Tuesday, April 1, 10 a.m. (Contact: Addie Myers, 989-778-0389).
- [Eastern Upper Peninsula Citizens Advisory Council](#) – Tuesday, April 15, 6 p.m. EDT (Contact: Stacy Welling Haughey, 906-226-1331).
- [Forest Management Advisory Committee](#) – Wednesday, April 16, 1 p.m. (Contact: Kimberley Korbecki, 517-582-3220).
- [Lake Erie/St. Clair Citizens Fishery Advisory Committee](#) – Wednesday, April 16, 10 a.m. (Contact: Jim Francis, 517-242-3593).
- [Lake Michigan Citizens Fishery Advisory Committee](#) – Wednesday, April 9, 10:30 a.m. (Contact: Jay Wesley, 616-490-5090).
- [Lake Superior Citizens Fishery Advisory Committee](#) – Wednesday, April 16, 10 a.m. (Contact: Dave Caroffino, 231-350-8654).
- [Michigan Historical Commission](#) – Thursday, April 10, 10 a.m. (Contact: Michelle Davis, 517-331-7374).
- [Michigan Natural Resources Commission](#) – Thursday, April 10, 9:30 a.m., (Contact: NRC@Michigan.gov).
- [Michigan Natural Resources Trust Fund Board](#) – Wednesday, April 16, 9 a.m. (Contact: Jon Mayes, 517-284-5954).
- [Michigan State Parks Advisory Committee](#) – Wednesday, April 23, 2 p.m. (Contact: Barbara Graves, 517-284-6135).
- [Michigan State Waterways Commission](#) – Tuesday, April 29, 9 a.m. (Contact: Michelle Wieber, 517-285-0747).
- [Michigan Wildlife Council](#) – Thursday, April 10, 10 a.m. (Contact: Jon Spieles, 517-388-1748).
- [Pigeon River Country Advisory Council](#) – Thursday, April 17, 5 p.m. (Contact: Mark Monroe, 989-983-4101).

- [Pigeon River Country Equestrian Committee](#) – Thursday, April 3, 5 p.m. (Contact: Mark Monroe, 989-983-4101).
 - [Timber and Forest Products Advisory Council](#) – Friday, April 18, 8:30 a.m. (Contact: Kimberley Korbecki, 517-582-3204).
 - [Tribal Co-management Citizens Fishery Advisory Committee](#) – Thursday, April 10, 10 a.m. (Contact: Dave Caroffino, 231-350-8654).
 - [Upper Au Sable River Citizens Fishery Advisory Committee](#) – Tuesday, April 22, 9:30 a.m. (Contact: Matt Klungle, 989-889-4832).
 - [Upper Peninsula Habitat Workgroup](#) – Tuesday, April 29, 10 a.m. (Contact: Stacy Welling Haughey, 906-226-1331).
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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](#).

The legacy phosphorus problem: Solutions for protecting inland lakes

Ehsan Ghane

April 15, 2025 at 1 PM Central

[Register for webinar](#)

Join this webinar to learn where most phosphorus comes from: is it tile drainage, fertilizer application, or the soil? Then, learn which conservation drainage practices reduce phosphorus the most. We will also discuss if nutrient management can play a role in reducing phosphorus loss.

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.



DNR News

March 17, 2025

Contact: [Jeremiah Blaauw](#), 906-235-7679 or [Aaron Switzer](#), 231-383-2565

Natural fish kills may be common during spring thaw

As ice and snow cover melt on Michigan lakes this spring, you may see dead fish or other aquatic animals. Given the return to a more “normal” Michigan winter this year — with more cold days and near-average snowfall across the state — you may notice more dead fish than you have in the past few years. While such sights can be startling, the Department of Natural Resources reminds everyone that it is normal for winter conditions to cause some mortality of fish and other creatures such as turtles, frogs, toads and crayfish.

“Winterkill is the most common type of fish kill,” said Aaron Switzer, DNR Fish Production Program manager. “It can be particularly common in shallow lakes, ponds, streams and canals during seasonal changes. It’s a natural phenomenon, and these kills are localized. They typically do not affect the overall health of fish populations or fishing quality.”

Shallow lakes with a large amount of aquatic vegetation and soft bottoms are more prone to winterkill, particularly when a deep snowpack reduces sunlight for the plants. Canals in urban areas also are quite susceptible, due to the large amounts of nutrient runoff and pollution from roads, lawns and septic systems that flow into these areas, especially after large storm events.

Fish also may be affected by rapid changes in water temperature due to unseasonably warm or rapidly warming temperatures, leading to stress and, sometimes, mortality. Fish

can become easily stressed in winter due to low energy reserves because feeding is at a minimum in winter. They are then less able to handle low oxygen and temperature swings. That could be the case this year with the record or near-record cold temperatures and large snowfalls Michigan experienced, and potential rapid warming in the coming months.

Fish and all forms of aquatic life need dissolved oxygen to survive. When ice and snow cover reduce the daylight that reaches the water depths, aquatic plants stop producing oxygen, and many die. Bacteria use the remaining oxygen in the water to decompose the dead plants and other organic materials on the lake bottom. With available oxygen reduced, more aquatic animals die and start to break down, speeding up the rate that oxygen is used for decomposition. This further decreases dissolved oxygen levels in the water, creating a cycle of increased winterkill.

Fish and other aquatic life that die in late winter may not be noticed until well after the ice leaves lakes, as the cold water may temporarily preserve them.

“If you see dead fish as a result of winterkill, the fish may appear fuzzy. This is because of secondary infection by fungus, but the fungus was not the cause of death,” said Switzer. “The fish actually suffocated from a lack of dissolved oxygen from decaying plants and dead aquatic animals under the ice.”

[Visit the DNR website for more information on fish kills in Michigan.](#) You can report fish kills at Michigan.gov/EyesInTheField; these reports are valuable to the DNR’s management of aquatic resources in Michigan. If you suspect a fish kill is due to non-natural causes, call the nearest [DNR office](#) or Michigan's Pollution Emergency Alert System at 800-292-4706.

Local Leaders Webinar Series

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

April 29, 10 - 11 AM

[Inland Lakes - what you need to know and how EGLE regulates
\(and doesn't regulate\) construction projects on inland lakes](#)

May 21, 10 - 11 AM

[Onsite Septic Systems and Septic Replacement Loan Program](#)

June 17, 10 - 11 AM

[Dust: How to Deal with it in your community](#)

Michigan.gov/EGLEvents

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!!!**

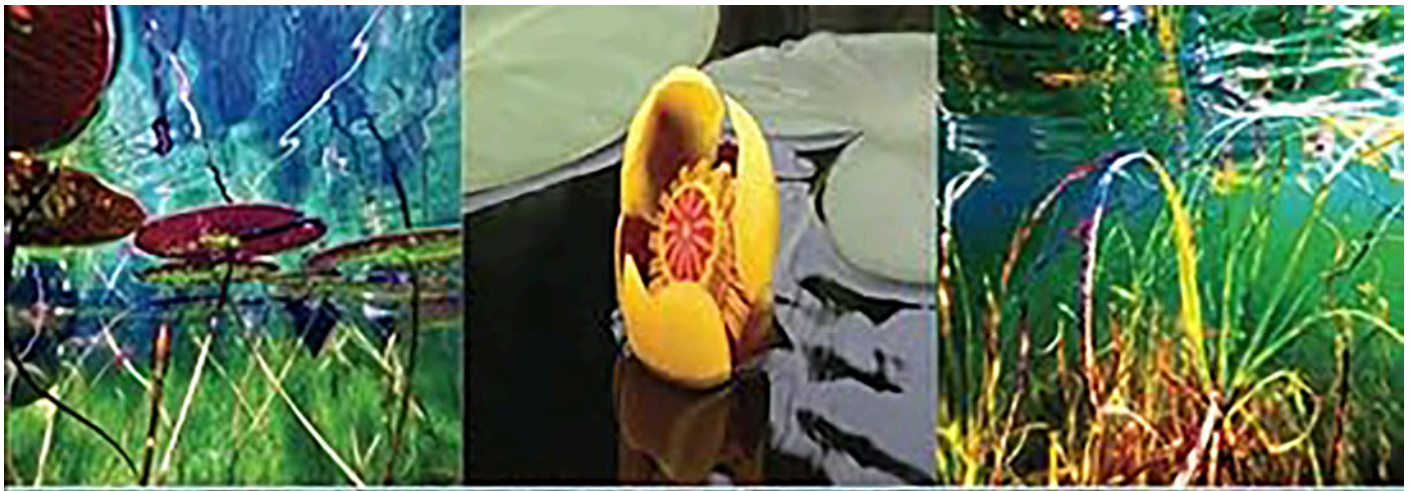
- **Are you tired of funding the management of aquatic invasive species on your lake that were introduced by recreational boaters using the local MI Department of Natural Resources owned and operated public boating access site?**
- **Are you just a bit angry that recreational boaters using your lake 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 Common Aquatic Plants of the Great Lakes Region

and the

**Vital Role That They Play in Helping to
Promote and Sustain Healthy Inland
Lake Ecosystems and Bio-Diversity**

by William 'Scott' Brown



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

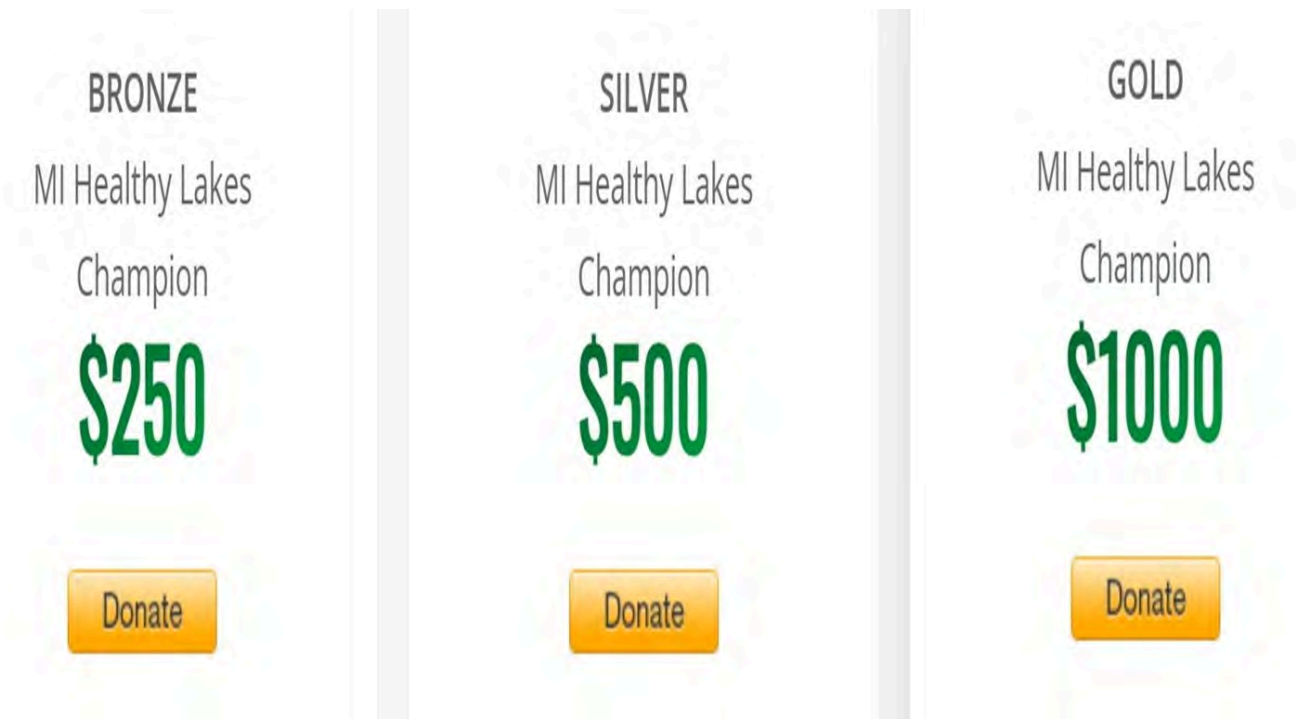
National Lakes Assessment

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 **N**atural **S**horeline **P**artnership

[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](#)



Lake Webinars and Virtual Events

NEW April 15, 2:00 PM: The legacy phosphorus problem: Solutions for protecting inland lakes. Presented by Ehsan Ghane, Michigan State University. Host: Midwest Glacial Lakes Partnership.

April 29, 10:00 AM: Inland lakes - What you need to know and how EGLE regulates (and doesn't regulate) construction projects on inland lakes. Host: Michigan Department of Environment, Great Lakes, and Energy (EGLE).

May 1, 1:00 PM: Climate change effects on fisheries. Host: Itasca Waters.

May 21, 10:00 AM: Onsite septic systems and Septic Replacement Loan Program. Host: Michigan Department of Environment, Great Lakes, and Energy.

June 5, 1:00 PM: Septic health check: A deep dive into inspections and maintenance. Host: Itasca Waters.

July 10, 1:00 PM: Biology and management of starry stonewort. Presented by Dan Larkin, University of Minnesota - Twin Cities. Host: Itasca Waters.

August 7, 1:00 PM: Harmful algae blooms and climate change. Presented by Chris Filstrup, University of Minnesota - Duluth. Host: Itasca Waters.

September 4, 1:00 PM: Water and drainage infrastructure in changing climate. Host: Itasca Waters.

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

NEW 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.

NEW 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.

NEW 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.

November 6, 1:00 PM: Banded mystery snail effects on lakes. Host: Itasca Waters.

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.



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



Join Michigan Waterfront Alliance!

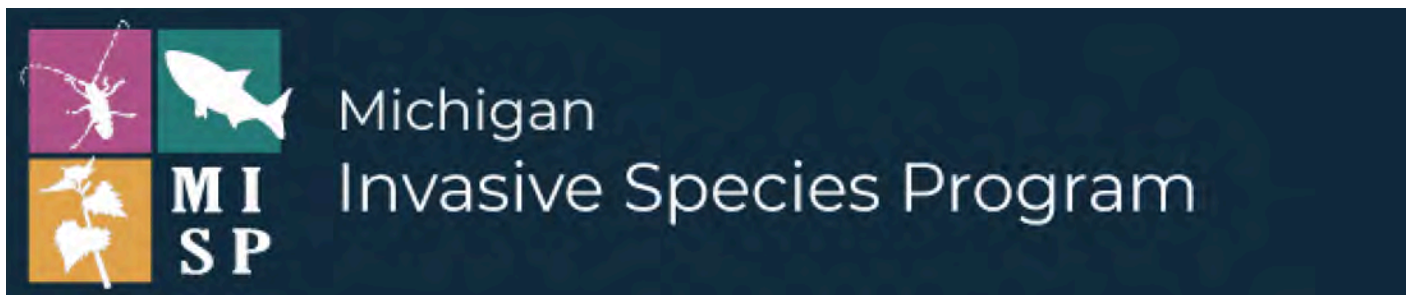
**We Need the Support of People Who Care about Preserving
and Protecting our Extraordinarily Valuable Freshwater Resources
for Future Generations Now!!!**

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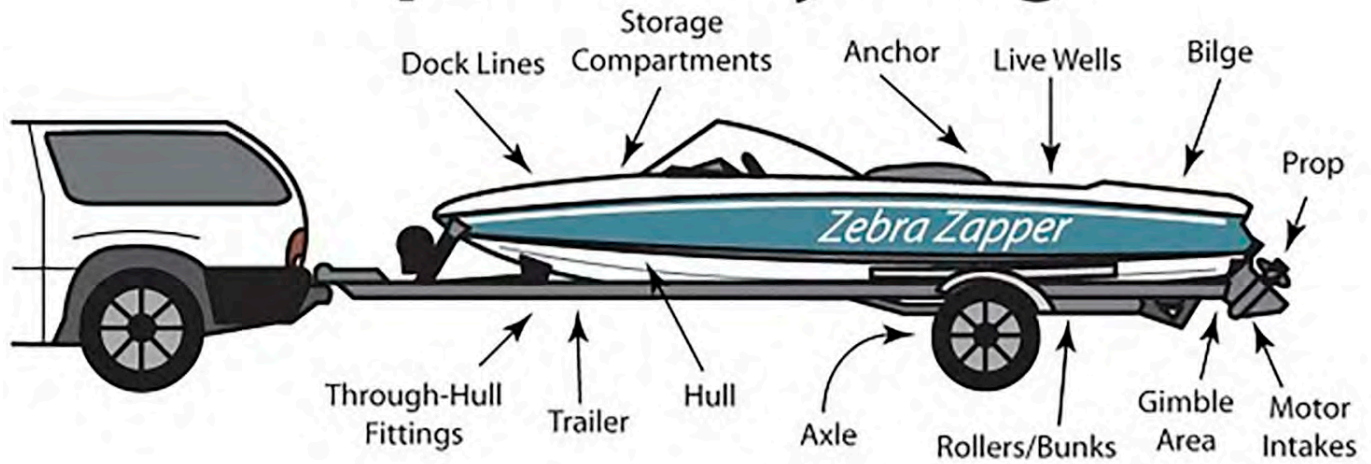
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Before leaving and before launching...
inspect everything!



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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