



## Army Corps awards first work contract for Brandon Road Interbasin Project

The U.S. Army Corps of Engineers, Rock Island District, awarded the first construction contract for the Brandon Road Interbasin Project on November 27. The \$15.5 million contract was awarded to Miami Marine Services for site preparation and riverbed rock removal for the engineered channel. Miami Marine will partner with Michels Construction, Inc. of Milwaukee, Wisconsin, for completion of this contract.

This project, which is a partnership between USACE and the States of Illinois and Michigan, is part of the first of three construction increments for the estimated \$1.15 billion project designed to prevent the upstream

movement of aquatic nuisance species into the Great Lakes.

“This contract award is an important step forward as we get shovels into the ground on the Brandon Road Project,” said Governor Whitmer. “The Great

Lakes define Michigan. They support tens of thousands of good-paying jobs and drive tens of billions of dollars in economic impact. Building Brandon Road will help us protect local communities, grow our economy, and ensure future Michiganders can enjoy these incredible natural resources for generations to come.”

Protecting the Great Lakes from the threat of invasive carp has bipartisan support in Michigan, with Gov. Whitmer pledging \$64 million to match a



### Brandon Road Project

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*To those we love and see each day  
And other loved ones far away  
To all good friends whose friendship means so much  
And those with whom we're somehow out of touch ...*



*Happy New Year*

## ODNR encourages boaters to register for upcoming free Ohio Boating Education Course

**COLUMBUS, Ohio** – The Ohio DNR is encouraging Ohioans to take advantage of upcoming Ohio Boater Education Course dates (OBEC) taking place this fall and winter. This free, essential training is required for anyone born on or after January 1, 1982, who operates a boat over 10 horsepower. The course is open to anyone wishing to participate.

“Taking part in an Ohio Boating Education Course is a valuable way to learn key skills and safety practices before heading out on the water,” said Andy Foos, Boating Education Coordinator with ODNR. “Completing the course not only meets the legal requirement but also contributes to safer, more enjoyable boating for everyone.”

OBEC is a comprehensive, one-day class designed to fulfill Ohio’s mandatory boater education requirements. The course covers essential topics for safe and responsible boating, including boat handling and preparation, safe operation practices, legal requirements, emergency procedures, and water sports safety. Each session concludes with a test to ensure participants are equipped with the knowledge needed for a safe boating experience. While there is no charge for the class, registration is required.

Upcoming OBEC Dates and Registration Links:

- January 11 (8 a.m.-4 p.m.) – Ashley – [Registration](#)
- January 21 and 23 (5-9 p.m. both days) – Hebron – [Registration](#)

For more information on boater education and skills, visit the [ODNR website](#). ✧

## Lake Erie walleye on the move for Fall Brawl contestants

The late season walleye fishing around Lake Erie is in full swing, and Fall Brawl anglers are reporting that large schools of trophy fish are moving toward the waters off Huron, the prime pre-staging waters for the spring spawning season. The Lake Erie water temperatures are in the high 50s, encouraging walleye to put on the feed bag and chase schools of gizzard shad and shiner minnows.

The entry deadline is over for the Fall Brawl and the Walleye Slam derby, which ended December 1. Despite windy conditions, in recent days good reports have been posted by trolling fishermen working the 30- and 40-foot waters north of Huron, Vermilion and Lorain. While some big walleye are being caught in deeper waters, anglers are having to sort through schools of smaller walleye.

Sandusky Bay anglers are still catching walleye in the deeper areas around the bay, with Flicker Minnows and blade baits an option for both casting and trolling. Expect to see trolling fishermen moving to the near-shore Lake Erie waters along the Ohio shoreline in the coming days, especially after the sun goes down.

Walleye are still chasing small trolling spoons, but diving plugs, or crank baits, have begun to dominate. The Dead Eye Baby lures have been especially productive, along with a wide variety of plugs such as Bandits, Flicker Minnows, Reef Runners and Perfect 10s. Many lures are in special colors that will earn anglers a \$500 bonus if they win weekly or tournament prizes.

The piers and break walls in the Sandusky area have already been hot spots for shore anglers casting after dark. Fishermen are also crowding piers around the Lake Erie Islands, Marblehead, Catawba Island, Huron, Lorain, and Fairport Harbor.

A standout pier lure is the Dead Eye Junior, a jerk bait that is a very slow sinking plug. Also catching walleye from shoreline are swim baits, Rat-L-Traps and blade baits. ✧



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### Position Statement

Representing a major interest in the aquatic resources of the Great Lakes states and the province of Ontario, the Great Lakes Sport Fishing Council is a confederation of organizations and individuals with a concern for the present and future of sport fishing, our natural resources and the ecosystem in which we live. We encourage the wise use of our resources and a search for the truth about the issues confronting us.

### Inland Seas Angler

#### GREAT LAKES BASIN REPORT

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# Lake Erie Walleye, Yellow Perch 2024 Hatch Results

**COLUMBUS, Ohio** – Results from the annual Lake Erie fish surveys revealed that walleye hatches were below average and yellow perch hatches were above average in two of the three management zones, according to the Ohio Department of Natural Resources (ODNR) Division of Wildlife.

Although the 2024 walleye hatch was below average, anglers will be able to enjoy many more years of remarkable fishing thanks to robust hatches from 2018 to 2023. Based on the 2024 survey results, anglers can expect good yellow perch fishing in the western half of Lake Erie.

Data from annual trawl surveys conducted by the Division of Wildlife are combined with those collected by the Ontario Ministry of Natural Resources to indicate the success of spawning and early life survival of walleye and yellow perch in the western basin. In the central basin, Ohio's trawls are utilized in conjunction with other agency surveys to gauge hatch success.

Results allow biologists to predict how many young fish will enter the catchable population two or three years later. These indices are a key piece of information used by the inter-agency Lake Erie Committee of the Great Lakes Fishery Commission to determine annual levels of safe harvest for walleye and yellow perch.

## Walleye

Lake Erie is known as “The Walleye Capital of the World” because of its world class walleye fishing. Lake Erie has a robust, sustainable population of adult walleye following an unprecedented run of six straight above-average walleye hatches.

Surveys conducted in 2024 show a below average hatch. The 2024 western basin walleye hatch index was

19 fish per hectare (a standard measure of catch per area). This was the smallest hatch since 2016 and below the average of 58 fish per hectare, ranking 21st of 37 years. Although this year's hatch is below average, anglers can expect these fish to contribute to the catch in 2026.

Central basin results were similar with a survey index of 7 young-of-year walleye per hectare, slightly below the average of 7.6 fish per hectare. This was the lowest value since 2017. Central basin walleye hatches are likely a small component of the lake-wide population, but tagging studies suggest that fish hatched in the central basin spend more time there compared to migratory walleye from the western basin. Central basin walleye hatches may seasonally provide local fishing opportunities when schools of migratory walleye are not present.

Walleye typically grow to the 15-inch minimum length for harvest two years after hatching. Because recent hatches have been above average and walleye can live more than a decade, Lake Erie anglers can expect walleye fishing to remain fantastic for many years.

## Western basin yellow perch

Lake Erie yellow perch are surveyed and managed as regional populations within management zones. The Division of Wildlife uses these zones to monitor perch hatches and, by comparing results to previous years, determine safe harvest levels.

The western basin yellow perch hatch was above average and should make a noticeable contribution to the catchable adult population in 2026. The Ohio-Ontario survey index was 673 young-of-year yellow perch per hectare, above the average of 462 fish per hectare and ranking seventh of the survey's 37 years.

In 2024, mid-summer and late fall yellow perch fishing in the western basin provided great catch rates and excellent fish size. Division of Wildlife surveys in the past decade have shown a trend of more consistent hatch success in the western basin. This year's hatch, along with contributions from previous years, should continue the trend of good yellow perch fishing in 2025 and beyond.

## Central basin yellow perch

The central basin is split into two management zones for yellow perch: the central zone (Huron to Fairport Harbor) and the east zone (Fairport Harbor to the Ohio-Pennsylvania border). Hatch results were encouraging in the central zone, with an index of 50 young-of-year perch per hectare, above the average of 37. The east zone index of 11 per hectare was below the average of 36. The central and east zone hatches ranked 10th and 22nd of the 35 survey years, respectively. Late fall limit catches of large yellow perch were again common near central basin harbors in 2024, indicating that good seasonal opportunities still exist despite lower population sizes.

Variability in regional yellow perch hatch success is expected on Lake Erie because of the size of the lake, differences among basins and zones, and prevailing weather conditions. Hatch success is largely determined by the timing and availability of favorable conditions for both spawning and survival of newly hatched yellow perch in the spring and summer. Strong lake-wide yellow perch hatches are rare.

For more information on the Lake Erie fisheries and to find fishing reports, maps, and more resources, visit [wildohio.gov](http://wildohio.gov). Download the [HuntFish OH](#) mobile app for fishing information on the go. ✧



## Registration open for winter's 'BOW' weekend workshop in the UP

The Michigan DNR announced registration is open for this winter's "Becoming an Outdoors Woman" program, which is set for February 21-23, 2025, in Marquette County. This winter will mark the 24th annual winter BOW gathering for women, 18 and older, who are seeking an opportunity to improve their outdoor skills in a relaxed, noncompetitive atmosphere.

"Registration for this popular program always fills up fast, so don't delay," said Michelle Douglas, BOW program coordinator.

We've had as many as 100 women attend the weekend's activities. The BOW program is sponsored by the DNR and offers instruction in two dozen different types of indoor and outdoor activities, including cross-country skiing,

archery, snowshoe, ice fishing, wilderness first aid, resource roadkill, photography, snowshoe along with several new features, such as wild game butchering, wild game cooking and sausage making.

Instructors provide basic and advanced teaching that is tailored to each participant's individual ability. The program also includes special evening programs during the weekend.

BOW participants stay and take their classes at the Bay Cliff Health Camp, a universally accessible facility overlooking Lake Superior, which is situated about 30 miles north of Marquette near Big Bay.

Participants will be housed in a dorm-style facility with amenities, including a sauna and hiking trails with access to northern hardwood forests and Lake Superior.

The \$300 registration fee includes all food and lodging, as well as most equipment and supplies, except as noted in the registration materials. Scholarships are also available on a limited basis.

Class information, registration materials and scholarship applications, are available online to print at [Michigan.gov/BOW](https://Michigan.gov/BOW). Payment and registration materials should be sent to the address on the registration paperwork in Marquette.

For more information on the winter BOW program, e-mail [DNRBOW@michigan.gov](mailto:DNRBOW@michigan.gov).

To keep up with the latest on BOW, sign-up for email notifications at [Michigan.gov/BOW](https://Michigan.gov/BOW). You can also follow [BOW on Facebook](#) or [Instagram](#). ✧

## Snowmobile season is near – are you ready?

While we don't yet know what winter has in store, state-designated snowmobile trails are open December 1 to March 31, and trail grooming occurs when there is enough snow on the ground. Now is a good time to prep for the season (think snow!), starting with purchasing your snowmobile trail permit.

Michigan is home to 6,000-plus miles of DNR-designated snowmobile trails, public roads and public lands (only where riding is authorized).

Did you know that nearly 1,900 private landowners allow use of their land to create the trails network? Their generosity allows the DNR to offer trails that connect communities and bring snowmobilers to special places of interest that otherwise wouldn't be available to them.

"We're incredibly grateful to these property owners and their partnerships with their local snowmobile clubs," said Jessical Roehrs, statewide motorized trails analyst for the DNR Parks and Recreation Division. "It's

important for all of us to give thanks to these landowners and to remember to be respectful of the land, wherever we ride."

Here is ride-related info to keep in mind:

- Always Ride Right: Ride sober, ride at safe speeds and ride on the right side of the trail. Get more tips at [Michigan.gov/RideRight](https://Michigan.gov/RideRight).
- Your \$52 snowmobile trail permit is valid for one year, which begins October 1 and ends September 30 of the following year. Buy permits online through [eLicense](#) (your sticker will be mailed within seven to 10 days) or the [Michigan Snowmobile ORV Association](#) (which processes permit orders daily Monday through Friday) and in person at [DNR license agents and dealers](#).
- Residents must also [register snowmobiles with the Michigan Secretary of State](#) (unless sleds are used solely on private property). Registration is good for three years,

and those registration dollars support the purchase of easements, law enforcement on trails and safety education.

- The snowmobile program is 100% funded by trail permit and registration dollars that are directly reinvested into the program to benefit snowmobilers. The funds pay for grooming, signage, maintenance, bridge and culvert construction, purchase of new equipment, liability insurance, maintenance of trailhead amenities (signage, bathrooms, plowing of parking lots) and other snowmobile-related expenditures.
- Remember that some snowmobile trails may not be open December 1 due to trail conditions or other factors such as in-progress maintenance projects. Know before you go by checking the [DNR's closures webpage](#).

Learn more at [Michigan.gov/Snowmobiling](https://Michigan.gov/Snowmobiling). Questions? Contact [Jessica Roehrs](#) at 517-331-3790. ✧

## Plan a Winter Free Fishing Weekend clinic, Jan. 18-19

The Wisconsin DNR invites clubs and organizations to host free fishing clinics on Winter Free Fishing Weekend, January 18-19, 2025. On Free Fishing Weekend, residents and nonresidents can fish *most* waters of the state without a fishing license or a stamp for trout or salmon (see exceptions regarding trout waters below).

Please submit the [event registration](#) and [materials request](#) forms by January 8. The clinic will be promoted, and educational materials will be sent. Anglers ages 15 and under may fish without a license any day of the year. Therefore, organizers are encouraged to also welcome adults new to ice fishing.

No ice is safe ice. A strong ice safety message is recommended to be stressed at every clinic. The DNR does

not monitor ice conditions, but local bait shops and fishing clubs may have current information. Download the brochure [Know Before You Go](#) for facts about ice and tips to prepare for a safe outing on the ice. If the lake for the clinic doesn't freeze over, anglers can cast from shore into open water.

Clinic plans should include anglers with limited mobility. Many state properties and community partners have accommodations or equipment to make the outdoors accessible for all. Learn about the available accommodations at state-managed properties on the DNR's [Accessible Recreation webpage](#) and other options from [partner organizations](#).

Clinic hosts are advised to consult the trout regulations when planning

clinics and outings. While catch-and-release trout streams are included this weekend, only artificial lures are allowed, and anglers must release all trout caught. The following bodies of water remain off-limits for fishing:

- Spring ponds and lakes (page two in the [trout regulations](#) has a list of these waterbodies).
- Lake Michigan tributaries and major Green Bay tributaries.
- All other Green Bay tributary streams, rivers and ditches upstream to the first dam or lake or streams flowing into Lake Superior and their tributaries upstream to the first impassable barrier.

All other [fishing regulations](#), including bag limits, size limits and species restrictions, remain in effect. ✧

## Fisheries are Evolving

Thanksgiving 2024 is behind us and, in many places, there's a skim of ice on the ponds. It wasn't that many years ago that we would be confident there would be fishing through the ice the weekend after Thanksgiving. Not so anymore in most traditional ice fishing locations. Ice fishing is starting later and ending sooner across much of the ice fishing belt. To the surprise of no one who enjoys fishing or outdoor activities, our outdoor world continues to evolve.

These evolutions have little to do with equipment. They involve habitat, water quality and fish species changes to name a few. A friend who sells ice fishing equipment to retail stores in Wisconsin told me that one of his stores has lost at least 20 days of the ice fishing season in recent years. Warming temperatures prevent safe ice. This certainly hurts that retailer as well as other area businesses that benefit from ice fishing. And the shorter ice season also creates changes in the ecosystem of the lake.

It's interesting how a change of just a couple of degrees in average air temperature has a significant impact on a lake's ecosystem. Cisco are a fish

that are found in northern waters that are deeper and have colder water. They're an important food source in some lakes. In Minnesota just a couple of decades ago, about 650 lakes were home to cisco. Recent population surveys indicate that now fewer than 200 lakes have cisco. Warmer air temperatures created warmer water and reduced cisco populations.

The warmer water also changes gamefish populations. Warmer waters are friendlier to largemouth bass than trout. Walleye populations have declined in some places due to warmer water. Ecosystem change can significantly alter fish species populations. There aren't fewer fish, there are just fewer fish of some species. And there are more fish of other species.

Longer periods of no ice can create longer growing seasons. In some places we're catching bigger fish more often. Today's angler is more skilled than yesteryear, equipment is better, and catch and release helps in creating bigger fish. But longer growing seasons allow fish to get bigger.

Another reason for changes in water quality is fewer wetlands. Some states have lost half of their wetlands. Other states have lost more. It's understandable. There are a lot of people who need grains and such for daily living, and those wetlands are turning into fields where those grains can be grown. However, wetlands filter some of the bad things out of runoff water, and that makes better water quality and cleaner lakes and rivers. Fewer wetlands can mean more bad things in the water. But we've learned lots about improving water quality. In some places water quality is better today than it was yesterday.

Changes in climate and temperatures don't need to be bad things. In fact, if we let them, good things can happen. More fish and bigger fish, just not the kind of fish that some of us prefer. And if we can identify a potential problem, we can fix it. It's important that we understand that things change, and change doesn't need to be a bad thing. If we change how we do things, we can turn a possibly bad situation into a good situation. That's always a win. ✧

## DNR permitting decisions for proposed Enbridge Line 5 relocation

**MADISON, Wis.** – After careful consideration of applicable state laws, all input received and the administrative record, the Wisconsin DNR announced [its decision to issue an individual wetland and waterway permit with conditions and convey coverage under the department's Wisconsin Pollution Discharge Elimination System \(WPDES\) General Permit for Construction Site Storm Water](#) for Enbridge, Inc.'s proposal to replace a segment of its Line 5 liquid petroleum pipeline in Ashland and Iron counties.

The DNR's review of these permits follows prescribed standards in Ch. 30 and ss. 281.36 and 283.33, Wis. Stats., and associated administrative codes, which specify the criteria the DNR is authorized to consider.

The wetland and waterway permit authorizes Enbridge to conduct specific construction-related activities that impact navigable waterways and wetlands as specifically described in the permit application, associated

plans and permit conditions. The permit contains more than 200 conditions to ensure compliance with the state's wetlands and waterways standards. Permit coverage under the WPDES Construction Site Storm Water General Permit authorizes Enbridge to conduct land-disturbing construction activities in accordance with the application for coverage and associated plans, including specific plans for erosion control and water quality protection.

Approvals from both the DNR and U.S. Army Corps are needed before the project can proceed. Additional DNR permits or approvals for discharge of hydrostatic test water, dewatering of groundwater, burning of slash and incidental take of listed species may also be required.

Enbridge has also applied for a U.S. Army Corps of Engineers permit to discharge dredged or fill material to waters of the United States under Section 404 of the Clean Water Act, which is required before the project can proceed. The DNR has issued a

water quality certification with conditions that serves as a determination that the project as proposed will meet State of Wisconsin water quality standards. The U.S. Army Corps will consider [Wisconsin's water quality certification](#) as part of their permitting process.

Operational since 1953, Line 5 is part of an extensive network of petroleum transport pipelines owned and operated by Enbridge Energy, LLC. The existing line runs for 645 miles from Superior, Wisconsin, to Sarnia, Ontario, including a 12-mile segment that passes through the Bad River Reservation of the Bad River Band of Lake Superior Chippewa. Enbridge is proposing to replace 20 miles of existing pipeline, including the 12-mile segment within the reservation, with 41 miles of new pipeline routed entirely outside the reservation's border.

[For a list of frequently asked questions and answers, or a general overview of the project, visit this DNR webpage.](#) ✧

## Wisconsin Brook Trout Program



**MADISON** – The Wisconsin DNR announced the implementation of the Brook Trout Reserves program, a new initiative to protect Wisconsin's native brook trout populations from changing environmental conditions. Cold water streams provide the ideal habitat for native brook trout. Wisconsin has an estimated 22,000 miles of cold water stream habitat suitable for brook trout to call home. However, with warming stream temperatures, it's projected that in 30 years, two out of every three miles of this habitat will become too warm to support brook trout.

To help combat this problem,

DNR fisheries biologists have used survey and environmental data to identify cold water streams in 205 subwatersheds that are the most likely to persist in the face of climate change. Each subwatershed within the Brook Trout Reserves contains:

- Self-sustaining brook trout populations.
- Above-average brook trout abundance, exceeding that of nonnative trout and salmon.
- Limited or no brown trout stocking.
- More than two stream miles of brook trout habitat are projected to remain by 2050.

To learn more about the Brook Trout Reserves, visit the DNR's [StoryMap](#) and the [Brook Trout Reserves webpage](#).

### How to Get Involved

There are many ways to get involved

in this program. Members of the public can help protect our brook trout populations by:

- Enrolling your property in the DNR's Streambank Easement Program.
- Volunteering to help resource managers with forest and fish habitat management projects.
- Planting trees along stream corridors to restore shade and keep streams cold.
- Implementing healthy land use practices in these watersheds.
- Identifying and fixing stream crossing impairments associated with roads.
- Joining local conservation or watershed groups.

To become involved in brook trout habitat projects in your area, contact your local [fisheries biologist](#). ✧

## Officials celebrate the near-eradication of invasive creature in Great Lakes: 'This is an unprecedented victory'

Getting rid of an invasive species is not an easy feat—that's how they came to be called "invasive species" after all. In the Great Lakes, however, [National Geographic reported](#) officials are declaring victory over the invasive sea lamprey.

In order to combat the highly predatory sea lamprey, which arrived in the region more than a century ago and immediately began to gobble up native species, scientists developed a new type of lampricide that has now killed off between 90-95% of the sea lampreys in the Great Lakes without harming the native species.

"There is no doubt that this is an unprecedented victory anywhere on the planet, where you have a species this destructive, this widespread geographically, and yet still able to be controlled using a selective

technique," said Great Lakes Fishery Commission's executive secretary Marc Gaden. "It saved the Great Lakes fishery."

Other attempts to manage sea lamprey populations included releasing sterile males into their populations and setting up a kind of border crossing for them. Ultimately, though, it seems to have been the lampricide that did the trick.

The lampricide was developed by scientists at the University of Michigan along with officials at Hammond Bay Biological Station. It took seven years for them to stumble across a solution that worked.

"It's not rocket science to kill fish. Fishery managers actually do it all the time," Gaden [explained](#). "What's really hard is killing just what you're after and leaving everything else

intact." The sea lamprey's impact on this ecosystem rivaled that of the most destructive, parasitic species of all time: humans.

"At their height, [sea lampreys] were consuming over 100 million pounds of fish," said Greg McClinchey, legislative affairs and policy director for the Great Lakes Fishery Commission. "To put that into perspective, they were outcompeting humans for that resource. They were more damaging to the natural ecosystem than people, and that's pretty hard to do."

For many other invasive fish species, such as lionfish and snakeheads, officials hope to merely control the populations rather than eradicate them almost entirely—but perhaps the success of the lampricide program can offer some hope. ✧

## MDNR funding HB 6229 introduced to adjust license fees

**HB 6229** was introduced into the final session of the state legislature and your continued support is extremely critical to its passage. For those that have not received this notice already, Fisheries Chief, Randy Claramunt below, has provided details of the Bill.

### Dear Michigan Fisheries Stakeholders, Partners, and Supporters,

On behalf of DNR Fisheries Division, I am excited to share with you that the bill to adjust hunting and fishing licenses has been introduced in the Michigan House as **HB-6229** for the protection and enhancement of the incredible and diverse fishery in Michigan. In addition to the legislative sponsorship, we have received numerous calls and official letters of support from the Michigan Steelhead & Salmon Fishermen's Association (all chapters), Michigan Charter Boat Association, Great Lakes Council of Fly Fishers International, Bass Federation of Michigan, Trout Unlimited, Anglers of the Au Sable, Straits Area Sportsman's Club, Burt Lake Preservation Association, Upper

Black River Council and various fishing advisory groups and lake associations across the state. This bill will update the available fishing license fees which were last changed over 10 years ago and have not kept pace with economic changes or changes in the sportfishing industry and community.

In the words of our stakeholders, this license "proposal would generate new revenue that would increase staffing, mostly at the field level, add fisheries technicians and biologists, increase fish production, and many other benefits that will help to preserve and improve Michigan's most important natural resources". The Great Lakes Council of Fly Fishers International also notes that, "It is estimated that recreational fishing generates \$2.3 billion in economic activity for our state and that there are over 1 million licensed anglers."

Our stakeholders and partners also recognized that the previous fishing and hunting license change in 2013 failed to address long-term funding

needs for our fisheries. As stated by Michigan Charter Boat Association, "since the last fishing license fee adjustment, the cost of fish food for hatcheries has increased over 70 percent. This explosion in cost is found across all MDNR Fisheries Division activities. It threatens the ability [of the agency] to maintain proper staffing, stock the Great Lakes with sportfish, maintain equipment and repair the infrastructure which supports these activities."

We couldn't state the case any clearer and more succinctly than our partners have here, and we encourage you to voice your support for the license package, which will be a game changer for Michigan's fisheries and future generations of anglers. You can do so by contacting your respective legislator by any means possible (email, letter, call, etc.) and let them know that you want them to support this bill but do so asap as there are only a few days left in Session and thanks again for all your support. ✧



## Lake Superior Committee announces major fishery management milestone: Lake Trout Population is fully restored

**Ann Arbor, MI** – A major milestone was recently reached in fisheries management on Lake Superior (Gichigami). The Lake Superior Committee (LSC) announced that lake trout (Chinamekos) are fully recovered in most of Lake Superior (Gichigami). The LSC is coordinated under the auspices of the Great Lakes Fishery Commission, consists of fishery managers from the three Great Lakes States (MN, WI, and MI) which border Lake Superior, from the Province of Ontario, and from U.S. Tribes represented by the 1854 Treaty Authority, Chippewa-Ottawa Resource Authority (CORA), Great Lakes Indian Fish and Wildlife Commission (GLIFWC), and the Red Cliff Band of Lake Superior Chippewa Indians.

In the mid-1900's, lake trout populations declined to extremely low levels in Lake Superior due to extensive overfishing and the devastation wrought by non-native, predatory sea lampreys. Through the 1954 Convention on Great Lakes Fisheries, the Governments of Canada and the United States came together to form the Great Lakes Fishery Commission; the Commission was charged with controlling sea lampreys, coordinating fishery management, and conducting Lake trout rehabilitation, which was initiated on a small Lake Superior tributary, Mosquito Creek, in 1958. Successful control of sea lampreys allowed additional management efforts, such as strict harvest regulations and stocking of various strains of lake trout, to be implemented. Together, these efforts were successful and allowed for the LSC to substantially reduce stocking in the mid-1990s due to increased abundance of naturally reproducing lake trout populations.

“The decline and near extinction of native lake trout resulted in a drastic change to the Great Lakes ecosystem and devastated the region's economy,”

said Ethan Baker, chair of the Great Lakes Fishery Commission. “The recovery of this keystone species from near extirpation to the healthy, self-sustaining population was achieved through a multi-decade and multi-jurisdictional Herculean effort that required an unprecedented amount of coordination, resources, and commitment.”

Lake trout supported an annual commercial harvest of 4 million pounds (2 million kilograms) between 1920 and 1950. By 1964, however, only 210,000 pounds were harvested. Today's announcement of a fully restored lake trout population in Lake Superior comes after nearly 70 years of concerted rehabilitation efforts. The LSC estimates the current abundance of naturally reproduced lake trout is at or above the best estimates of abundance prior to the sea lamprey invasion in 1938. Because of this, the LSC believes the lake trout population is restored, and has achieved the 2003 Fish Community Objective of a “genetically diverse self-sustaining populations of lake trout that are similar to those found in the lake prior to 1940, with lean lake trout being the dominant form in nearshore waters, siscowet lake trout the dominant form in offshore waters, and humper lake trout a common form in eastern waters and around Isle Royale.” Similar objectives have guided the work of the LSC since lake committees were formed in 1960.

Bill Mattes, LSC Chair said, “This is an incredible success story made possible by widespread collaboration and coordination of tribal, state, and federal governments engaged in fisheries research, monitoring, and management. I look forward to the continued cooperation amongst fisheries managers and agencies to maintain healthy, self-sustaining lake trout populations in Lake Superior through effective sea lamprey control, prudent harvest policies, and

protection of the Lake Superior ecosystem, which includes prevention of invasive species and water quality protection.”

Baker concluded: “Rehabilitating lake trout in the world's largest freshwater lake did not happen overnight; it required an unwavering commitment to a shared vision across multiple generations of fishery managers from Indigenous, provincial, state, and federal agencies. It is undoubtedly one of the most successful stories of native species restoration in the world. Lucky for us, we have a front row seat.” ✧

### Minnesota DNR retains 2 walleye limit on Mille Lacs Lake for winter season

State-licensed ice anglers on Mille Lacs Lake will be able to keep two walleye 18-20" long, or one walleye 18-20" and one walleye longer than 28", from Sunday, Dec. 1, 2024, to Sunday, Feb. 23, 2025. “Mille Lacs' walleye population is trending in a good direction for both adult and juvenile fish,” said Brad Parsons, Minnesota DNR fisheries section manager. “Juvenile perch and tullibee, important forage species for walleye, also are abundant.”

State-licensed anglers share the harvest on Mille Lacs with Ojibwe tribes that retain treaty fishing rights. The total harvest for the fishing year is set through discussion and agreements between the state and the tribes, with each party setting regulations to stay within their share of the harvest. As of September 30, state-licensed anglers had harvested 29,891 of the 91,550 pounds of walleye they were allocated for the 2024 fishing season. Complete winter fishing regulations for Mille Lacs Lake are available on the [Minnesota DNR website](#). ✧



## Commission welcomes Hon. Ethan Baker, Mayor of Troy, Michigan, as Chair *Mayor Baker is the third Michigander to chair since 1954*

ANN ARBOR, MI – The Hon. Ethan Baker, Mayor of Troy, Michigan, assumed the chairmanship of the Great Lakes Fishery Commission, a Canada-U.S. treaty-based organization. Commissioners are responsible for fostering bilateral relationships between Canada and the United States to implement a treaty called the Convention on Great Lakes Fisheries of 1954. The Great Lakes fishery, valued at nearly \$6 Billion annually to the people of the region, requires careful and collaborative cross-border management if the economic value is to be sustained. Chair Baker is responsible for ensuring that this bilateral relationship thrives. He is only the third Michigander to chair the commission since the organization was founded in 1954.

The 1954 convention directs the commission to facilitate fishery management among the jurisdictions, conduct and coordinate a science program, and implement a comprehensive program to control invasive sea lampreys. U.S. Commissioners are appointed by the President of the United States and Canadian Commissioners are appointed by Privy Council. The chair and vice-chair positions rotate between countries every two years.

“Although the commission is made up of commissioners from various locations throughout Canada and the United States, it was created and stationed in Michigan—the only jurisdiction in the basin to have management authority on four of the five Great Lakes,” said commission vice-chair Jim McKane, a commissioner from Canada. “Chairman Baker arrived during a unique time in the commission’s history, working through challenges caused by the pandemic and ongoing governance issues in Canada, but he hit the ground running and quickly assumed a leadership position as the vice-chair. Now as chair, I am confident he will lead the commission

with the same inquisitive, determined, and poised demeanor he has demonstrated thus far.”

Before his appointment to the commission in 2021, Mr. Baker was elected as Troy’s mayor in 2019 and has a long history of public service. He is known for his dedication to community development and to creating safe, community-centered neighborhoods. Re-elected as mayor of Troy in November 2023, Mr. Baker remains steadfast in his commitment to community involvement. In addition, Mr. Baker is an attorney who specializes in elder law, estate planning, business law, and real estate. He received the 2016 Oakland County Executive Elite 40 Under 40 Award and is an advisory board member of the U.S. Conference of Mayors—a non-partisan organization of over 1,400 cities with populations of 30,000 people or more.

“The Great Lakes are binational treasures and are the major reason why people choose to work and live in this region,” said Baker. “The commission and its programs are pivotal to the success of the Great Lakes fishery and the hundreds of communities that rely on this incredible resource for employment, sustenance, and recreation. The Great Lakes represent the largest body of freshwater on the planet, and I am honored to have the opportunity to chair a commission that works to protect and improve the \$6 billion fishery.”

Mayor Baker holds a bachelor’s degree in political science from University of Southern California; a juris doctorate from Whittier College School of Law, graduating magna cum laude; and a master of public affairs from the University of Michigan Gerald R. Ford School of Public Policy.

Mayor Baker is only the third commissioner from Michigan to chair the Great Lakes Fishery Commission.

The first chair was Mr. Claude Ver Duin, former Mayor of Grand Haven, Michigan, and the second was Dr. Bill Taylor, the alternate U.S. Commissioner from East Lansing, Michigan, who served as chair. ✧

## Restoring lake whitefish in Otsego Lake

In partnership with SUNY Cobleskill and SUNY Oneonta, DEC built and installed three artificial reefs on the bottom of [Otsego Lake](#) to provide clean spawning habitat for lake whitefish, a native coldwater fish species that were once abundant in the lake. Up until the 1980s lake whitefish thrived in the lake, but populations collapsed due to the introduction of invasive alewife, zebra mussels and quagga mussels. Fortunately, the alewife population crashed in 2010, and is now believed to be extirpated, making restoration of coldwater fish species like lake whitefish, lake trout and cisco possible.

DEC Region 4 Bureau of Fisheries and Operations employees with SUNY partners constructed three new artificial reefs by hand. Placed at three predetermined locations in the lake, the reefs are comprised of cobble-sized rocks (with a water quality monitoring well in the center) and measure about 27’ long x 23’ wide x 3’ tall. DEC will monitor the reefs in hopes they are used by spawning adult lake whitefish over the winter months. The reefs may also attract spawning lake trout and cisco, which require similar spawning habitats. DEC also placed egg collection mats on the reefs to determine which species of fish are spawning and utilizing the reefs. This project is expected to run for the next five to 10 years where more reefs will be installed around Otsego Lake in historic and current lake whitefish spawning areas. ✧

## Smallies in Lake Erie

SANDUSKY – Lake Erie is home to more than 100 fish species.

But there isn't much known about smallmouth bass and Zak Slagle, a fisheries biologist with the Ohio DNR, is determined to change that. Slagle is currently working on a research project involving the movement of smallmouth bass within the lake. "Smallmouth have not been studied much in Lake Erie," Slagle said.

He referenced a previous study done in the late 1990s. Smallmouth were tagged, but the project relied on anglers to catch the fish and report where they were caught. A vast majority of tagged fish were recaptured within a mile of where they were tagged, Slagle said.

"It has implications for us," Slagle said. "When it comes to management, we're worried about overfishing populations and stuff like that. If fish don't move that much, then we have the potential to overfish certain local populations." Slagle tagged about 215 smallies in Lake Erie over two years. He plans to study them through 2027 and report his findings.

### Fish tagging

This past spring, Slagle and a team of his co-workers caught smallmouth through angling and electrofishing near the bass islands, Kelleys Island, Sandusky Bay, Lorain, Fairport Harbor and Ashtabula.

Slagle tagged the fish by implanting a small transmitter—about the size and shape of an AA battery—into the belly of the fish. The transmitter within the fish emits acoustic signals underwater that are unique to each fish. The signal, which isn't audible, can travel up to a mile.

There are about 500 receivers in the lake that listen for the signals. When a receiver detects a transmitter, it records the date and time. This allows researchers to see where the fish traveled. "We can piece together a trail of the fish going around in the lake," Slagle said.

The system isn't live, so Slagle can't see where the fish he tagged are whenever he wants. He has to wait

until data is pulled from the receivers, which happens every six months to one year. The data recorded by the receivers is shared across the Great Lakes. The system acts as a way for researchers to collaborate together, Slagle said.

All sorts of fish—including walleye, lake trout, lake sturgeon, drum and other fish—in the lake are tagged. Fish with transmitters will be recorded on the receiver no matter the species. "The telemetry allows us to monitor the fish across the entire lake and throughout the winter," Slagle said. "We don't have to worry about needing anglers to catch them."

It's still possible for anglers to catch the tagged fish, but what happens if they do? An external tag on the fish includes the division's office phone #, so anglers can report it. He wants to gather the date, location and most importantly, the tag ID #. The number matches to a specific fish. "I can tell the person where it was tagged and where it has been," Slagle said.

Anglers can choose to either keep the fish or put it back in the water. Although Slagle prefers it goes back in the water, so it can be studied more. If the fish is harvested, Slagle requests that the transmitter inside the fish be given back, so it can be reused for future projects.

Because of recapture reports, Slagle discovered that some of the fish have been caught twice. "I had one angler catch three tagged fish in a day," Slagle said. All of the information Slagle is receiving is helping him learn more about the fish.

Slagle analyzed data based on the 60 smallmouth bass he tagged in spring 2023. He determined most of the fish haven't made big movements so far. Though a couple of fish have made huge moves. For example, a fish tagged near North Bass Island went up the Detroit River and to Lake St. Clair, between Michigan and Canada. Then the fish came back down to Lake Erie. "That's pretty wild," Slagle said. "I have no idea why a bass would do that, but it did."

Another fish tagged near Fairport

Harbor decided to cross Lake Erie. It went to the north shore along Canada and returned to the south shore within two weeks. "We're learning that a portion of the population of smallmouth can make long-distance movements, like over 300 miles in one to two years," Slagle said. "It's something that's not well understood. Some just do it."

Slagle is also looking into the personality of the fish because there are natural genetic variations. Some bass tend to be more aggressive while others are more passive. A more aggressive bass is more likely to attack a lure if it sees it. Angling was a way to select for the more aggressive fish.

The other method used to catch fish was electrofishing. An electrofishing boat puts electricity in the water near the boat to temporarily immobilize the fish. The fish recover and act normal after 2 minutes to 3 minutes. Electrofishing served as the control because they weren't selecting for any specific personality types with that method. He's curious to see if the more aggressive fish are the ones making the bigger moves.

Slagle recently received new data, which includes the 155 fish he tagged this past spring. He's working on processing the information and seeing how it fits into what he has learned so far. "It's like Christmas when you get new data," Slagle said.

### A passion for the fishery

As the principal investigator of the project, Slagle is responsible for writing the proposal, organizing data and turning it into several publications. He also creates a variety of animations showing the paths of the fish.

The end goals of the project are to prevent overfishing, make sure there's a healthy population and providing opportunities to anglers as much as they can while having a sustainable population.

Slagle enjoys interacting with anglers and members of the public. "It's fun to talk to people who share that excitement and passion for our fishery," Slagle said. ✧=

## Brandon Road Project

*Continued from page 1*

match a \$50 million commitment from Illinois, unlocking \$274 million in federal funds for the project.

Invasive carp can grow up to 60 pounds, eating 40% of their body weight each day. Each female can produce 1 million eggs. Given their high reproduction and consumption rates, it would take as few as ten female and ten male carp crossing into the Great Lakes to establish a population.

If established, invasive carp could outcompete native species and greatly harm the ecology and economy of the entire Great Lakes region, including rivers and inland lakes, and its \$20 billion fishing and boating industries.

For more information visit: [www.mvr.usace.army.mil/BRIP/](http://www.mvr.usace.army.mil/BRIP/) or contact the USACE Rock Island District by phone at 309-794-5729 or email at: [cemvr-cc@usace.army.mil](mailto:cemvr-cc@usace.army.mil) ✧

## Canadians ban more semiautomatic firearms

With Christmas approaching, the federal Liberals provided owners of some centrefire and rimfire semi-automatic rifles a lump of coal in banning another 324 models of what it calls “assault-style” firearms. The December 5 announcement prompted confusion, with the list of additional banned models released three hours after a press conference. A preliminary examination didn’t identify traditional hunting models in the list. Issued on the eve of the 35<sup>th</sup> anniversary of the **L’Ecole Polytechnique** mass shooting, the announcement also included word of regulatory amendments to be introduced on December 13. Also expected are “regulatory measures to ensure that all firearms in the Canadian market are accounted for” and new regulations regarding on high-capacity magazines in March 2025. No details were provided on these additional measures. ✧

## Seats to be offered for Jan 10 MN DNR Roundtable

The Minnesota DNRs’ Roundtable—an annual gathering of conservation partners to discuss fisheries, wildlife, and ecological and water resource topics and encourage partnership—will again include a no-cost, open registration opportunity. The 2025 DNR Roundtable will be held **Friday, Jan. 10**. The opportunity to register for one of a limited number of first-come, first-served slots is available on the DNR’s [Roundtable webpage](http://mndnr.gov/roundtable) ([mndnr.gov/roundtable](http://mndnr.gov/roundtable)). The 2025 Roundtable will include a mix of important topics over the course of the day and an informal early evening reception. Program details will be available closer to the event. ✧

## DNR now accepting applications to grow Wis fishing community

MADISON, Wis. – The Wisconsin DNR is now accepting applications for the Angler Recruitment, Retention and Reactivation (Angler R3) grant program. Funding from the grant program is used to help grow the number of anglers in Wisconsin and expand angling activities.

Past recipients have used this grant to support in-depth angler education programs at schools, fly fishing classes for women and veterans, training for people promoting accessible fishing and to expand fishing programs at camps for children. Community and recreation centers also are good fits.

Programs for adults who never learned how to fish as well as youth programs that go beyond one-day events will also be considered.

Grant cycles are for two years, and funding will become available to the recipient once a grant agreement is signed by all parties, approximately one year after the application is submitted. A total of \$30,000 is available for projects, with individual grant awards up to \$5,000.

Deadline to submit: 11:59 p.m. CST on Tuesday, Feb. 18, 2025 ✧

## Lake Superior anglers can harvest lake trout starting Dec. 1

MADISON, Wis. – [Lake Superior's lake trout season](#) is open and runs until September 30, 2025, or until the harvest cap is met. Lake Superior’s Wisconsin waters are divided into two management units: WI-1, which encompasses all waters from Superior to Bark Point (considered the Western Arm), and WI-2, which includes waters from Bark Point to the Michigan border (considered the Apostle Islands region).

Each of these management units has its own lake trout harvest quota based on current lake trout populations, with different allocations for different user groups. Since the Apostle Islands region experiences more fishing pressure, the lake trout season will close early if the quotas are reached. This year’s recreational quota is 15,000 lake trout.

A bag limit of three lake trout may be harvested from the Western Arm waters, and only two may be harvested from the Apostle Islands region. In both management units, lake trout must be a minimum of 15 inches long, and only one fish over 25 inches may be kept. Thanks to sound management practices, the lake trout populations in Lake Superior have been rehabilitated and provide anglers with great fishing opportunities. ✧

## Public Notice for Ashtabula Harbor

The U.S. Army Corps of Engineers Buffalo District is proposing to repair the Western Breakwater, of Ashtabula harbor, in Ashtabula, OH and is requesting your comments on the proposed project.

The Draft Environmental Assessment for this project is available at: <https://www.lrd.usace.army.mil/Mission/Public-Review-Approved-Plans/>.

Comments will be accepted by email for 30 days at: [Ashtabula\\_Harbor\\_West\\_Breakwater\\_Repair@usace.army.mil](mailto:Ashtabula_Harbor_West_Breakwater_Repair@usace.army.mil). ✧

# Our Nation's Lakes are in Crisis

*Experts urge moving away from short-term "fixes" that only worsen the lake's condition over time, and instead advocate for a holistic, science-based strategy that tackles the underlying causes of lake health to revitalize the entire ecosystem.*

Lakes are more than just bodies of water; they are vital ecosystems that support diverse life forms, provide recreational enjoyment, and sustain local economies. Yet, across the country, these precious resources are under threat. The water quality in our lakes is declining at an alarming rate, leading to severe repercussions.

Observable indicators of this deterioration include the emergence of symptoms such as invasive weeds, algae blooms, the emission of unpleasant odors, and "fish kills." When a crisis occurs, specialists are called in to evaluate and oversee the situation. Diagnostic tests are performed to confirm the presence of a harmful algae bloom (HAB) – a fact that usually is already evident. Frequently, the application of chemicals like biocides is advised.

While the notion of eradicating algae to improve the lake's appearance before an upcoming holiday is enticing, this can lead to a detrimental cycle that accelerates the deterioration of the lake's ecosystem. The elimination of algae results in the release of toxins, leading to the destruction of more beneficial organisms and favoring the proliferation and dominance of the harmful organisms in the lake. Over time, the continued application of algicides causes lake algae blooms to worsen. In other words, the symptoms are treated temporarily, but the patient never gets better.

The U.S. Government Accountability Office (GAO) has confirmed the severity of this issue. The findings are clear: we are losing the battle to protect our lakes, and unless we

change our approach, the situation will continue to deteriorate. As a result, many experts are urging a different approach and a more permanent solution.

"The goal should be to reverse the damage and restore these vital ecosystems, but to do so, we must revise, and sometimes abandon practices of the past that have been widely recognized to be ineffective and embrace a new way of managing our lakes—one that is proactive, science-based, and focused on addressing the root causes of degradation," says Wayne Carmichael, PhD, a prominent expert in aquatic toxicology, known for his work on toxic cyanobacteria.

Carmichael has over 500 peer-reviewed papers, publications and presentations and has consulted on cyanobacteria issues in over 25 countries. He advises federal, state and local agencies, participates in national and international committees and has contributed to reports for the World Health Organization. Fortunately, there are effective, comprehensive solutions that can help in the fight to save our nation's lakes. The solution is a multifaceted approach that addresses the root causes of water quality degradation. Ultimately, this approach can improve water quality, enhance recreational opportunities, and preserve aquatic ecosystems for future generations.

## **The Root Causes of Lake Deterioration**

The decline in lake health is driven by several interconnected factors, described in general as eutrophication. Eutrophication is the technical term for the process that occurs when water bodies become overly enriched with nutrients, resulting in sediment nutrient accumulation.

These nutrients are recycled back into the water, fueling further algae growth and creating a feedback loop that

perpetuates the cycle of degradation. A tipping point is eventually reached when sediment nutrient recycling is sufficient to sustain eutrophic conditions and facilitate a switch to cyanobacteria dominance. In short, HABs become more prevalent, persistent, and intense.

According to Carmichael, the cause of eutrophication is well established. While some levels of nutrients are natural, human activities such as agriculture and urban runoff have accelerated eutrophication to dangerous levels, overwhelming nature's capacity to clear out these nutrients and maintain balance. Whether caused by climate change or not, the water temperature of lakes is increasing, further fueling eutrophication. Unfortunately, many lake management strategies often prove inadequate because they target the symptoms rather than the root cause factors that drive eutrophication in lakes.

## **In Search of More Permanent Solutions**

According to Carmichael, effective restoration of lake and water reservoir health begins with monitoring key metrics that go beyond confirming the poor condition of the lake. These metrics should assess the entire ecosystem and provide indicators that can be used to evaluate sustained improvement. "[As an agency and industry] we have done a good job of monitoring, but now we need to get more serious about remediation and prevention," says Carmichael.

This does not include simply applying air, flocculating/binding agents or algicides as a quick fix. Treating the symptoms in this way often causes a rebound effect, where the underlying issues become more severe over time. "...chemical and physical methods either dampen the effects of a bloom or shorten the bloom, but do not prevent the bloom." says Carmichael, who notes that the net effect is often only to



temporarily improve lake conditions for a few weeks, or months. The truth is that in most cases biocides, whether herbicides or algaecides, only make the problem worse. Algaecides are more effective against beneficial algae than cyanobacteria, and cyanobacteria are better able to recover after each application.

By killing algae and cyanobacteria cells, toxins are also released, and the dead cells sink to the bottom and compound nutrient recycling when they decompose. As algae die and decompose, oxygen is consumed in the water, leading to hypoxic conditions, "dead zones," where aquatic life cannot survive. Hypoxia is a major driver of "fish kills" and the loss of biodiversity in lakes. Addressing the root cause, therefore, means properly managing sediment accumulation.

"In most cases, the nutrients become part of the sediment, which becomes part of the permanent morphology of the lake," says Carmichael. An important first step is to identify methods that recycle properly in a natural way those nutrient rich sediments without "just physically removing and dumping them somewhere [through dredging techniques] but allowing them to be used in the lake ecosystem because nutrients are needed for organisms to grow," says Carmichael. "Most of the nutrients are organic and can be recycled back through the food web to benefit the natural cycle of the lake—not the HAB cycle of the lake," adds Carmichael.

Addressing hypoxia by ensuring adequate oxygen levels in the water is also crucial for maintaining a healthy lake ecosystem. Although there are

many different solutions that can be used to help revive a lake ecosystem, one promising category involves utilizing Rapid Acting Dissolved Oxygen Restoration (RADOR) technology. Numerous studies have demonstrated that high, stable oxygen levels reduce nutrients and minerals in the water column and can keep phosphorus locked into the organic sediments.

"RADOR helps ensure that the necessary increase in oxygen levels is properly maintained throughout the entire water column within a lake," says Dave Shackleton, president of Clean-Flo International, a US-based leader in biological water management solutions for managing water quality in biological environments such as wastewater treatment, rivers, lakes and reservoirs. "By increasing dissolved oxygen levels throughout the water column, the RADOR system initiates a sequence of events that bio-dredge mucky sediment, control aquatic weeds, improve water quality, reduce organic muck, nutrients, odor, harmful gases, and coliform bacteria. This helps to restore the nutrient clearing capacity of the food web by improving fish growth and health," explains Shackleton.

Clean-Flo designs its RADOR systems using compressors of various sizes based on the lake and application, along with self-sinking airline and diffusers that maintain full oxygenation from the bottom to the surface of the water.

"Another important step in restoring balance to a lake is bioaugmentation, which involves the use of enzymes to break down organic muck, like a compost pile. Boosted by natural enzymes, aerobic bacteria and micro-

organisms consume the organic muck and nutrients, while aquatic insects feed on the bacteria, increasing the natural food source for fish," says Shackleton. Critical micronutrients can also be introduced to stimulate the growth of organisms that form the foundation of a productive food web. This enables balance to be restored at the level of phytoplankton, so that beneficial algae can outcompete the toxic cyanobacteria, preventing HABs and providing better nutrition for the food web. The food web becomes more productive so that nutrient clearance is restored and sediment nutrient stockpiles are depleted as they are biodredged away.

Consistent use of these products over time reduces nutrient availability and helps maintain clean, healthy water. As water quality improves, swimming conditions get safer. The reduction of organic sediments helps control aquatic weeds by minimizing the nutrient-rich rooting bed that mucky sediment provides for their growth.

According to Shackleton, these are only a few of the available solutions, and customized programs based on the specific conditions of each lake are typically required to ensure restoration and long-term lake health.

"To preserve our nation's lakes, the industry must adopt a new approach to lake management—one that supports nature and addresses the root causes of degradation," says Shackleton. "Working with nature, rather than against it, is key to restoring lake health." For more information, visit [www.Clean-Flo.Com](http://www.Clean-Flo.Com); Email [Contact@Clean-Flo.Com](mailto:Contact@Clean-Flo.Com); Or Call 1-800-328-6656 ✧

### **Other Breaking News Items:**

**(Click on title or URL to read full article)**

#### [Spotlight on complexity of bottled water issues, as BlueTriton exits Ontario](#)

Water bottler BlueTriton announced it will cease operations in Puslinch, Ontario, in January 2025. Activists said their exit could be due to issues with the well from where water is drawn, and the company was getting pressure to exit from the Indigenous Six Nations who claim the land

[Michigan legislation would require periodic septic tank inspections](#)

Michigan has debated for decades but never passed a uniform statewide septic code and remains the only state without one. Whether the latest push can get over the finish line seems unlikely after a state Senate panel adjourned without voting on legislation this week.

[To protect spawning Lake Michigan whitefish, DNR limits anglers' hooks](#)

This is the last November anglers casting from some popular fishing spots along Lake Michigan can catch whitefish using a wide range of tackle

['Extinct' Great Lakes shortnose cisco fish discovered in Lake Superior](#)

It's a fish story with a big, unexpected plot twist. A native Great Lakes whitefish thought extinct for nearly 40 years has been rediscovered by scientists in Lake Superior

[Minnesota reaps windfall from epic comeback of lake trout in Lake Superior](#)

Once-rare lake trout in Lake Superior are doing so well that Minnesota Department of Natural Resources biologists will use the fish to stock the species in lakes around the state.

[Construction will soon begin on project to keep invasive carp out of Great Lakes](#)

The U.S. Army Corps of Engineers awarded a \$15.5 million contract to Miami Marine Services to prepare the Brandon Road Lock and Dam on the Des Plaines River in Joliet, Illinois, for the installation of defenses to keep invasive carp from getting into the Great Lakes

[Walleye fishing in Erie, Pittsburgh has been 'phenomenal.' Here's why](#)

The Pennsylvania Fish and Boat Commission has been surveying boat anglers, revealing that anglers on Lake Erie have had one of the best years in recent memory for catching walleyes. Fishing has improved due to the amount of forage fish that walleye have been eating and the

[Nearly 1,000 brown trout brought to SONS of Lake Erie for a winter stay](#)

Nearly 1,000 brown trout were provided by the Pennsylvania Fish and Boat Commission to Crawford County, Pennsylvania, to help keep a healthy amount of brown trout in the area. [Read the full story by WJET-TV – Erie, PA.](#)

[Once nearly wiped out, the lake trout declared 'fully recovered' in Lake Superior](#)

After nearly being wiped out in the mid-20th century, one of the Great Lakes' top native fish species, the lake trout, has "fully recovered" in the Lake Superior, according to natural resource managers.

[Lake Michigan water levels drop to lowest in years amid warmth and lack of rain](#)

Lake Michigan's water levels have dropped below long-term averages for the first time in 10 years

[How Native Americans are saving lake sturgeon](#)

Tribal communities have played a pivotal, but often overlooked, role in lake sturgeon restoration efforts in the Great Lakes.

[After decades, lake trout restored to sustainable levels in Lake Superior](#)

Lake Superior's top predator fish is at a sustainable population. The lake trout population has recovered to the point it no longer has to be stocked.

[Chicago-area water pollution may be stalling the spread of invasive carp](#)

In a name-your-poison twist, a new study from the University of Illinois adds to the evidence that Chicago-area waterway pollution is slowing the relentless advance of the invasive silver carp.

[The fight to keep grass carp out of the Great Lakes](#)

Fisheries and Oceans Canada, along with partners in the U.S., keep a watchful eye for grass carp. Breeding populations of the invasive fish have been found on the American side of Lake Erie and could devastate the Great Lakes ecosystem.

[New grants incentivize London-area farmers to fight Lake Erie algal blooms](#)

Canadian environmental officials hope a new funding program will entice farmers around London, Ontario, to do more to reduce the algal bloom-causing phosphorus that leaves their farmland. The new Thames River Phosphorus Reduction Program is backed by \$17.4 million in federal funds

[Lake Erie cools, walleye on the move for Fall Brawl contestants](#)

The late season walleye fishing around Lake Erie is in full swing and Fall Brawl anglers are reporting that large schools of trophy fish are moving toward the waters off Huron, Ohio, the prime pre-staging waters for the spring spawning season.

