

# OUR GREAT LAKE ERIE



**2022 Harmful Algae Bloom  
More than expected!**



**For now, Six Wind Turbines off the  
Cleveland Shores of Lake Erie?**



**Cuyahoga River –  
600 Blazing Paddles 2022**

## Dear Lake Erie Friend:

Tired of year after year worrying about where and how much green is in Lake Erie? I sure am. And we know what causes it. Politicians just do not have the political will to fix it. Catching the phosphorus after applied does not work – no putting unneeded phosphorus on the fields will work. USDA and Ohio are not targeting funding to get needed results.

Research shows that about 90% of the phosphorus coming into Lake Erie is from 'agriculture.' And we know this flipped from 50 years ago when phosphorus coming into Lake Erie was from wastewater (whose biggest source was laundry detergent that now has zero phosphorus). Twenty-eight states passed legislation to ban phosphorus in laundry detergent. And in the last 50 years wastewater plants collectively have spent billions of dollars on reducing sewage overflows by installing massive retention areas and other technology. Reduced wastewater source phosphorus discharges resulted in a healthy Lake Erie with little harmful algae.

So today we need to know the agricultural sources that need to be reduced. The two dominant agricultural phosphorus sources are commercial fertilizer and manure.

Commercial fertilizer phosphorus has been reduced by 20-40%. The trend is for farmers to apply less and less phosphorus in western Lake Erie while maintaining yields. Good for the farmer saves money – good for Lake Erie. Some farmers are adding no phosphorus at all to the fields and still getting good yields.

Conversely land applied manure phosphorus in western Lake Erie is increasing. More and more cows, swine, and poultry are added to the Western Lake Erie watershed that land apply all the untreated manure. Before, many farmers raised cows, pigs and poultry with the manure spread over millions of acres of pasture. Today, big ag has few farms that raise massive numbers of confined cows, hogs and poultry. The cow and pig manure which used to be on fields in solid form is now liquified and spread on limited acres close to the barns. Poultry manure is still applied as a 'solid.' The liquified manure easily makes its way into field tiles – to streams and to Lake Erie. Poultry manure runoff also makes its way to Lake Erie.

Fifty years ago, companies were prohibited from putting phosphorus in laundry detergent after state by state passed legislation to take phosphorus out of laundry detergent.

Today confined livestock produces massive amounts of manure. Liquified untreated land hog and cow manure and solid untreated poultry manure is excessively land applied to fields. Manure is a waste that needs to be disposed of. Its reuse for fertilizer phosphorus should only be when fields need the phosphorus for crops.

So, what is our ask – what needs to be done for Lake Erie to recover? The answer today is the same it was 50 years ago: Target the land where the most phosphorus is coming from; and reduce the sources.

We know that the major source that is increasing instead of decreasing phosphorus is manure. There are too many animals producing too much manure phosphorus to economically apply over three miles from the barns. What should be done with manure? Either treat the manure, reduce the animals, or pay to truck the manure to fields that need phosphorus (but acres are needing less and less phosphorus) so need is less and less. Lake Erie will not recover unless Lake Erie friends do something. Cities, counties, townships, yacht clubs, boating and sailing clubs, church groups, homeowner associations, civic organizations etc. pass a resolution asking for legislation to require manure to be managed as a waste and be treated like human sewage. This is the same as the fight to get phosphorus out of laundry detergent. Help get the green out of Lake Erie ....

Sandy Bihn

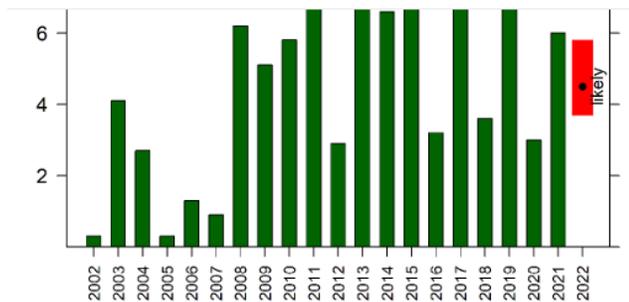
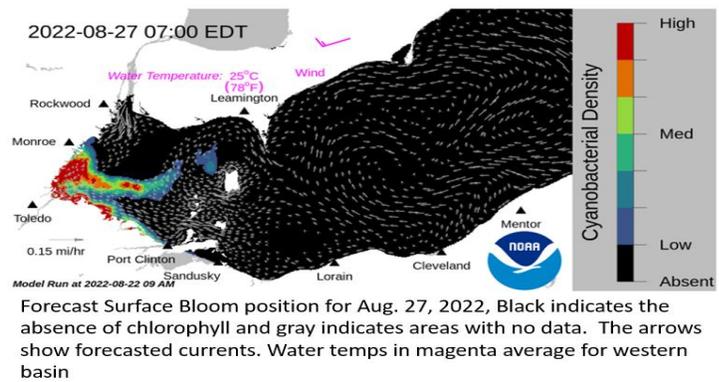


Figure 1. Projected bloom intensity as compared to previous years. The wide, bright red bar is the likely range of severity based on limits of model uncertainty.



## LAKE ERIE ALGAL BLOOM FORECAST INCREASED TO MODERATE AFTER HEAVY RAINS

Every summer there is a day devoted to forecasting how much harmful algae will be in Lake Erie. This is to help the millions of people who go to Lake Erie for a vacation, to boat, boat, sail, or kayak know how bad the green will be. The green Lake Erie forecast happens every year and is not about solving the green water problem, and it is never to say there will be no green. It is just to say how big or small the green area in Lake Erie will be. It would be good for the US and Ohio, Michigan and Indiana to announce every year how much phosphorus (dissolved and reactive phosphorus has been reduced and how much more has to be reduced to get rid of the green waters.

## RESEARCHERS SAY FUNDING TO REDUCE ALGAE FAILING TO GET RESULTS

“Federal and state agricultural and environmental agencies have spent enormous sums since the 1990s to reduce nonpoint source (NPS) water pollution from agriculture. Yet, water quality problems are pervasive, and agriculture is a major cause. The lack of progress is often attributed to insufficient funding for pollution control practices relative to the scale of the problem. However, we attribute the lack of progress to shortcomings in agricultural NPS pollution control policy. We illustrate our argument after considering nearly four decades of federal, state, and local efforts to reduce agricultural NPS pollution to the Chesapeake Bay. Additional funding for current programs, absent fundamental program reform, is unlikely to produce reductions from agriculture needed to achieve desired water quality outcomes. .... Acknowledging the need for change is the first step, and that will require accepting that we can- not simply buy our way out of the problem by spending more money on conventional, voluntary programs.” From ‘Confronting our Agricultural Nonpoint Source Control Problem’ Journal of American Water Works June 2022

## CHINA REQUIRES MANURE TREATMENT, LIMITS ANIMALS IN WATERSHED & LOOKS AT ENVIRONMENTAL SUSTAINABILITY FROM MANURE AT CONFINED LIVESTOCK FACILITIES

“Manure is an excellent source of the major plant nutrients including N, P, and K and it provides many of the micronutrients that plants require together with organic matter for soil amendment, all of which contribute to boosting crop yields and nitrogen use efficiency. However, manure nutrient content and availability are often highly variable and unknown. Furthermore, the cost of applying manures is high, about twice that of mineral fertilizers, due to the large volume, high water and low nutrient contents, and especially the high transport costs, compared with mineral fertilizers. **There is also a requirement for liquid manures to be treated** before the manure can be used on croplands. ...Another issue is the possible contamination of manures with trace metals (loid) and antibiotics. The content of heavy metals (notably copper and zinc) of some pig and chicken manures exceeds the national requirements of the *Control Standard for Pollutants in Sludge from Agricultural Use* in some regions due to the use of feed additives. Frequent applications of manure will result in the **accumulation of heavy metals and antibiotics in soils and crops<sup>1</sup>, with potential adverse effects on human health.** From Policies and Measures to Improve Manure Management, China 2021

## STATE OF WISCONSIN MANURE ANALYSIS FOR TMDL

Wisconsin did an extensive analysis of manure applied in sub watersheds for a nutrient Total Maximum Daily Load (TMDL) Ohio has no such analysis for the Lake Erie nutrient TMDL. Ohio does not require reporting of manure applied outside the owner’s property. Ohio assumes all large, confined animal feeding operations have zero discharge and therefore there is no water data for CAFO runoff.



## 2022 LAKE ERIE WATER LEVEL WATCH

Lake Erie's high-water levels are forecast to drop in August despite heavy rains in July and fears of another waterlogged late summer along the coast. In the [latest water level report](#) from the U.S. Army Corps of Engineers, Lake Erie's water level rose by 5 inches in July, putting it 20 inches above the long-term average for the month. That said, the lake is still at least 6 inches below last year's peak and is expected to drop by another 5 inches by Aug. 30.



## THE OHIO SUPREME COURT RULED THAT THE ICEBREAKER PILOT 6WIND TURBINE PROJECT 8-10 MILES OFF CLEVELAND'S LAKE ERIE SHORES CAN PROCEED

The Ohio Supreme Court ruled 6-1 August 10, 2022, with Justice Kennedy dissenting, that a state permit authorized by the Ohio Power Siting Commission, to construct the first freshwater, offshore wind turbine facility in North America was appropriately granted for the Icebreaker project in Lake Erie. The Icebreaker project proposes to build six turbines eight to 10 miles off the Cleveland Lake Erie coast and would generate 20.7 megawatts of electricity, with a potential to expand.

The court issue was whether the Ohio Power Siting Board followed the law in granting the permit. A third of the power is under contract with the City of Cleveland and Cuyahoga County. There isn't yet a date for when construction will start. The case ended up before the court after two Bratenahl residents opposed the project. The siting board made over 30 conditions for the project including monitoring wildlife activity before and after construction from April 1 through Nov. 15 each year. Before construction, radar must be installed on a barge. The board also is requiring collision mitigation technology be installed before turbine operations can begin. The August 10 decision may be the last legal hurdle for Icebreaker, though there are rumors of a federal suit. The New York Power Authority is proposing 166 wind turbines 425 foot tall to be built somewhere off the shores of Lake Erie and/or Lake Ontario. The Lake Ontario proposal is to build about 2.3 miles offshore in water not to exceed 150 feet deep between the Niagara River and Wilson N.Y. This proposal is meeting with strong opposition. President Biden's Climate Change Executive Order provides funding for offshore wind which could mean this first ever Great Lakes in lake wind turbines could happen in Ohio's portion of Lake Erie.

## PIPING PLOVERS DID NOT RETURN TO MAUMEE BAY STATE PARK IN 2022

Many hoped to see the piping plovers nesting near the inland beach at Maumee Bay State Park in 2022 but sadly it did not happen. Piping plovers which are endangered are repeating nests in other areas of the Great Lakes.

## SANDUSKY BAY WATER QUALITY IMPROVING

Since the Fremont dam removal water quality in Sandusky Bay has been improving. The toxin planktothrix, always present before 2020 is no more. Water quality has improved but researchers are puzzled by the changes and do not understand what caused the toxin to no longer be in the bay.

## BLAZING PADDLES PUTS 600 PADDLERS ON CUYAHOGA RIVER

It would be great to mirror the Cuyahoga 600 paddler event in other Lake Erie rivers. What an amazing comeback and celebration of a river that has removed toxics and dams that turns into a paddler's destiny. Congrats to Jim Ridge and all who made this great event.

## WALLEYE AND YELLOW PERCH FISHING GREAT THIS YEAR

It is yet another trophy year for walleye fishing in Lake Erie. The walleye is abundant in Lake Erie with great catches. Yellow perch remain best in western Lake Erie with fewer numbers in Lake Erie's central basin. Almost all anglers have been pleased with their catch this year.

## JOIN US FOR THE LAKE ERIE DINNER CRUISE SEPTEMBER 15 ABOARD THE GLASS CITY PEARL

Join Lake Erie Waterkeeper and friends for a Lake Erie dinner cruise at 6 pm September 15 that will show the Maumee River, Maumee Bay, Turtle Island and the Toledo Lighthouse. We are pleased to have as guest, University of Toledo Lake Erie Director Tom Bridgeman who will share some information on testing etc. this year. For registration information go to the Lake Erie Waterkeeper website.

## 50 YEAR ANNIVERSARY OF THE GREAT LAKES WATER QUALITY AGREEMENT AND THE CLEAN WATER ACT

Get your Lake Erie and Great Lakes comments in virtually in late August and early September to be presented to the US and Canadian governments in late September in Niagara, Ontario. Share your opinion on water quality issues in Lake Erie and the other Great Lakes. What is working – what is not. For sign up go to the Lake Erie Waterkeeper web site.

## LAKE ERIE EXECUTIVE ORDER

The request for a Lake Erie Executive Order will presented to USEPA Water division in a requested meeting. The Lake Erie Executive Order would have an annual meeting on phosphorus reductions, local governments at the Lake Erie Annex 4 meetings, and require consistent Lake Erie phosphorus reduction reporting.

## OHIO LAKE ERIE WATER ALGAE RELATED LEGAL ISSUES CONTINUE

Back in 2002 Wood County residents did a lot of homework and documented growing problems with Concentrated Animal Feeding Operations (CAFO's) neighbors and waters. Ohio's response was to switch permitting for water permits for CAFO's from Ohio EPA to the Ohio Department of Agriculture. But there was a snag, the transfer must be approved by USEPA. That has not happened since 2002 but we hear that an announcement from USEPA will be happening soon.

Also, the settlement of the impaired/TMDL case in federal court was to be up for public comment in the spring of 2022. It did not happen. Stay tuned.

## LAKE ERIE SITUATION DOCUMENTARY ON PBS SEPTEMBER 12

Lake Erie Situation continues to be shown in the Great Lakes region. Any educational institution can have the film at no charge. For details go to [eriesituation.com](http://eriesituation.com)

<p style="text-align: center;"><b>LAKE ERIE WATERKEEPER (LEW)</b></p> <p>Advocates for fishable, swimmable, &amp; drinkable water through advocacy, education, litigation and technology. LEW, founded in 2004 is licensed by the International Waterkeeper Alliance. LEW works for clean plentiful drinking water, public access to waterways, open space preservation, wildlife and habitat conservation, and safe boating, swimming, paddling and fishing in the entire Lake Erie watershed. For more information go to <a href="http://lakeeriewaterkeeper.org">lakeeriewaterkeeper.org</a>.</p>	<p style="text-align: center;"><b>LAKE ERIE WATERKEEPER UPDATES</b></p>
	<ul style="list-style-type: none"> <li>• Lake Erie Waterkeeper Monthly virtual and in person monthly meetings – usually 2<sup>nd</sup> Thursday at 7 pm – check web site to confirm</li> <li>• Sept. 6 OSU Algae Conference Stranahan Toledo Info on Ohio Sea Grant Web Site</li> <li>• Sept. 7 at 2:30 Lake Erie public input meeting on Lake Erie water quality – sign up link on Lake Erie Waterkeeper web site</li> <li>• Sept. 10-11 Toledo Lighthouse Waterfront Festival Maumee Bay State Park 10-5</li> <li>• Sept. 12 Documentary Lake Erie Situation PBS – check evening time</li> <li>• Sept. 12 Ohio EPA meeting on Aquaculture project in Maumee watershed – check website for details</li> <li>• Sept. 15 Lake Erie Waterkeeper Dinner Cruise – registration on Lake Erie Waterkeeper website (No other Sept. meeting)</li> <li>• Sept. 27-29 Great Lakes Water Quality Agreement 50<sup>th</sup> Anniversary Niagara, Ontario</li> <li>• Sept. 29, Lake Erie Situation and panel Sierra Club Northeast Ohio John Carroll University – details on waterkeeper website</li> </ul>