

# OUR GREAT LAKE ERIE

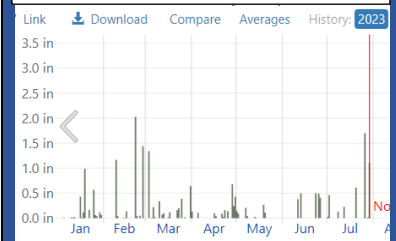


**2023 LAKE ERIE ALGAE FORECAST INCREASING BECAUSE OF JULY HEAVY RAINS**



**LIQUID COW MANURE APPLIED TO STUBBLED WHEAT FIELDS JULY 2023 IN WOOD COUNTY**

## Precipitation by Day/Month 2023



**TOLEDO RAINFALL 2" ABOVE NORMAL FOR JULY – MORE RUNOFF FUELS ALGAE**

## **TREAT THE MEGA FARM LIVESTOCK SEWAGE AND LIMIT CAFO NUMBERS IN THE MAUME/ERIE 'MANURESHED' to REDUCE ERIE ALGAE**

It will take public pressure to get the manure treated and limit the CAFO numbers. This will help reduce the big harmful algae driver, dissolved reactive phosphorus (DRP). While reduction of all sources is good, without addressing the mammoth growing manure source, Erie algae is here to stay. Lake Erie waterkeeper is taking a new approach to deal with CAFO manure see page four for information. Help with pictures reporting in text to Sandy at 419-367-1691.

### **LAKE ERIE USEPA DECISION POINT COMING SOON**

By the end of September USEPA will decide, per federal court consent decree, if Ohio EPA has put together an acceptable framework for western Lake Erie's harmful algae to be reduced. Clearly Ohio has not.

A recent report on WTVG 13 on the Erie Total Maximum Daily Load (TMDL):

"The TMDL does not comply with minimal legal requirements and will not lead to the remediation of Lake Erie," Rob Michaels, Environmental Law & Policy Center. Michaels says this EPA plan did not go far enough. The Ohio EPA's director told the I-Team this document is meant to bring transparency and more discussions on ways to clean up the lake, but it is not law. "The TMDL is not a regulatory document. So, it does not give us any additional regulatory authority over any producers," Anne Vogel, Ohio EPA director said. The law center believes this plan does not create tangible targets to be met, doesn't address dissolved reactive phosphorus (DRP) and doesn't regulate factory farms. "The failure to require adequate reductions from industrial livestock operations that's not optional either," Michaels said. Optional, Michaels says, for the Federal Clean Water Act. The United States EPA will now review this Ohio plan and decide if it's good enough. The US EPA could say "no" and draw up its own regulations. Something environmental advocates hope to see, instead of what's currently proposed. "It's just a recipe for more of the same," Michaels said.

The US EPA has until the end of September to make its decision.

Peter Hess, an environmental consultant working to help Lake Erie submitted comments to USEPA that clearly show that the Erie TMDL must have dissolved reactive phosphorus as part of the goals, total phosphorus alone does not provide the needed framework for Erie algae reductions. Hess further points out that Ohio's TMDL states that some money to agriculture for Best Management Practices (BMP's) and some cover crops reduce nitrogen and not DRP meaning there is zero phosphorus reduction from this funding. For over twenty years Ohio, Michigan, Indiana, and the federal government have handed out billions of dollars to agriculture help Lake Erie with zero reporting of how much phosphorus is reduced by the money and yet this is what Ohio is saying will lead to less harmful algae. Bottom Line USEPA needs to takeover the Lake Erie TMDL from Ohio.

## OHIO & Confined Animal Feeding Operation (CAFO) MANURE

*Note: Canada limits phosphorus to the agronomic or crop need phosphorus amount, Ohio allows excess. China requires large livestock sewage to be treated and limits the number of animals in a watershed. Ohio does not*

- Ohio fails to disclose when and where CAFO's began in Ohio.  
Answer. The dairy CAFO's came from the Netherlands (reducing manure to help water) to the Maumee watershed in the late 1990's. The Ohio State University invited the Netherland Dairy company known as Vreba Hoff to the Maumee watershed. Vreba Hoff brought Dutch farmers over to operate the dairy facilities who later went bankrupt because of high borrowing costs.
- Ohio fails to disclose growing number and location of CAFO's in watershed.  
Answer. In 2019 the Environmental Working Group (EWG) and the Environmental Law and Policy Center (ELPC) conducted research on the number of CAFO's, animals and amount of phosphorus in the manure. In 2019 the Ohio State University conducted research of the EWG/ELPC numbers and found the dairy and hog numbers withing a margin of error but found the poultry numbers understated. However, OSU used USDA Ag Census numbers that fail to disclose large CAFO facilities in a county. The EWG and ELPC numbers were correct.  
In 2022 the Environmental Working Group did a follow up study on the number of animals, facilities and land needed showing there is too much sewage/manure to economically apply to available land. The 2022 report shows 400,000 dairy cows, 1.8 million hogs and 24 million chickens in 2500 operations in the Maumee/Western Lake Erie watershed producing sewage/manure with over 30,000 tons of phosphorus. In May of 2022, the Ohio Department of Agriculture concurred with the EWG numbers.
- In 2019 when farmers were unable to plant about 50% of the crops and reduced used of commercial phosphorus fertilizer by about 50%, there were questions on manure – heavy rains filled lagoons. Ohio says and continues to use information from an OSU reported survey that claims only 10% of the manure was applied.  
Answer. Repeated requests for the CAFO manure survey in 2019 have gone unanswered.
- In 2002 Ohio transferred CAFO water related permitting from Ohio E.P.A. to the Ohio Department of Agriculture (ODA)  
Answer: USEPA approval was required for this transfer but never has but ODA is doing anyway

## Blue-Green Algae Human Health & Dog Symptoms/ Information from CDC

People or animals can be exposed to cyanotoxins by:

- Skin contact with water containing toxins while swimming or doing other activities in the water.
- Drinking water containing toxins
- Breathing in tiny droplets in the air that contain toxins.
- Eating fish or shellfish that contain toxins.
- Eating contaminated blue-green algae nutritional supplements

People exposed to cyanotoxins through touching or swimming in contaminated water or breathing in droplets of contaminated air may experience irritation of the:

Skin    Eyes    Nose Throat    Lungs

People exposed to cyanotoxins by eating contaminated food or dietary supplements, or by swallowing contaminated water, may experience the following symptoms, depending on the cyanotoxin involved:

Stomach pain    Headache    Neurological symptoms (for example, muscle weakness, dizziness)  
Vomiting    Diarrhea    Liver damage

If you think you may have symptoms caused by harmful cyanobacteria: Talk to your healthcare provider for advice about how to relieve your symptoms. Let them know that you might have recently come in contact with cyanobacteria or its toxins. Information about the suspected cause of your illness can help your healthcare provider manage symptoms. Call the poison center hotline at 1-800-222-1222. The specialists might be able to provide information about illnesses caused by cyanobacteria. Report any illnesses that you believe were caused by cyanotoxins to your local or state health department to understand and prevent illnesses caused by cyanobacteria, and others with similar symptoms.

**LAKE ERIE TEMPERATURE, WATER LEVELS, FLOW SOURCE ARMY CORPS OF ENGINEERS**

Temperatures in the Great Lakes region got progressively warmer in late July which went from slightly below normal to above normal with many locations reaching temperatures in the upper 80s °F. There has also been severe weather with strong winds and heavy rains including localized flooding and power outages. Forecasted water levels for July 28th are within two inches of water levels from a month ago on all the lakes. When compared to last year, water levels range from 1 to 4 inches below last year's levels on Lakes Michigan-Huron, St. Clair, and Erie, while Lakes Superior and Ontario are above their levels from one year ago by 2 and 10 inches, respectively. All the lakes remain above their long-term average July water levels. By August 28th, water levels are forecast to be near their current levels on Lakes Superior and Michigan-Huron, while Lakes St. Clair, Erie, and Ontario are forecast to decline by 1, 3, and 7 inches, respectively. Lake Superior's outflow through the St. Mary's River and Lake Michigan-Huron's outflow through the St. Clair River are forecasted to be above average for July. Lake St. Clair outflow through the Detroit River, Lake Erie outflow through the Niagara River, and Lake Ontario outflow through the St. Lawrence River are projected to be above average in July as well.

**REPORT SAYS WIND TURBINES WILL COME TO GREAT LAKES IN 2035**

A new report, published in 2023, Great Lakes Wind Energy Challenges and Opportunities Assessment. The study, authored in part by the National Renewable Energy Laboratory (NREL), operated by Alliance for Sustainable Energy, LLC, for the U.S. Department of Energy (DOE), indicates "that the adoption of wind energy could enable states in this region to pursue their clean-energy goals while bolstering their economies with high-paying jobs and providing a cleaner environment for the local residents.

The numbers are clear: wind resource assessments estimate that the Great Lakes' potential power capacity is 160 gigawatts for fixed-bottom wind turbines and about 415 gigawatts for floating wind energy systems. That wind energy resource potential exceeds the annual electricity consumption in five out of eight of the U.S. states bordering the Great Lakes. The Great Lakes have an abundant wind resource near population centers, and there is a real opportunity for Great Lakes wind energy resources to contribute not only to the region's clean energy mix and its economic growth but also to achieving long-term national clean energy goals set by the administration. According to the report, "One of the most feasible economic benefits to Great Lakes offshore wind energy development is the potential to expand local logistics and supply chains. This includes the development and revitalization of factories, ports, and vessels that meet the needs of the new Great Lakes-based offshore wind energy industry. Commercial fishing is also mentioned, with a note that "Great Lakes wind energy development may also be constrained by various siting considerations, such as viewshed limits or export cable routing challenges, but also less constrained by some conventional offshore wind siting considerations, such as expansive commercial fishing..." There are many other obstacles that these projects face, from the difficulty in transporting the offshore wind turbines to their destination to construction choices, either fixed-bottom foundation or floating wind turbines. Another big challenge is freshwater ice, which is stronger than sea ice and more prevalent in the Great Lakes than in Atlantic offshore wind energy sites. The lakes' annual freshwater surface ice introduces new technological challenges, especially for floating wind turbines, which have not yet been proven under these conditions. The study indicates that further targeted research is needed to develop an informed Great Lakes wind energy strategy including: Assessing site characterization, wind resource, lakebed features, and ice conditions, Evaluating the capabilities and needs of ports and vessels for installation and maintenance Determining how to develop a regional supply chain Assessing technology options, capabilities, and needs, including both fixed-bottom and floating systems, Examining ways to engage the workforce needed to support the development and ongoing maintenance of this new industry, Estimating project costs, Developing strategies to monitor and minimize environmental impacts, such as collision risk to birds and bats, Assessing human-use impacts, including examining viewshed and collaborating with fisheries, Evaluating regulatory and policy considerations in each state, including offshore leasing processes, Investigating electric power network points of interconnection, power handling capacity, and transmission expansion plans and needs, Researching prospective opportunities and synergies with Canadian entities.

**Lake Erie Livestock Sewage/Manure GOAL & INFO**

**REQUIRE ALL CONFINED SEWAGE PRODUCED TO BE TREATED AND LIMIT THE NUMBER OF COWS, PIGS AND POULTRY IN THE WESTERN LAKE ERIE WATERSHED**

*For years many of us have worked to educate, inform, research, etc. to get the growing problem of billions of gallons of sewage land applied untreated on the most tiled ditched land in the US (draining the Black Swamp). The response add more chickens, hogs, and cows to the watershed – some permitted many not – to land apply the untreated sewage/manure which contains heavy metals, antibiotics, pathogens, phosphorus, nitrogen and more.*

*Confined livestock Western Lake Erie which grew from none before the turn of the century to:  
400,000 dairy cows*

*24 million chickens*

*1.8 million hogs*

*Here is what Ohio is attracting now in the Western Lake Erie watershed:*

*1.5 million chickens*

*8000 cows – none permitted – divided below permit thresholds and financed by same person.*

*500,000 turkeys*

*All of the above will land apply billions of gallons of untreated sewage.*

**To address the Livestock Sewage/Manure Problem Lake Erie Waterkeeper is:**

- Hiring a CAFO expert, an engineer, to review and comment on selected CAFO permits. The first permits reviewed and commented on were for two industrial digesters at two existing CAFO’s. *Ohio’s CAFO permits have not been critically reviewed in a long time.*
- Reviewing digester permits, especially industrial permits where multiple CAFO truck liquid manure to and from a central facility.
- Testing up and down stream in the watershed with a grant from Freshwater Future in areas where liquid manure is being applied. *Ohio does not test the waters where CAFO runoff is happening.*
- Watching for CAFO permit notices. *Over the last several years, the Ohio Department of Agriculture has on some permit renewals failed to notify the list of interested parties. Most recently, the Pine Valley Ranch increase of 1.5 million chickens had a July public meeting which had not been sent to the interested party list. When Lake Erie Waterkeeper asked the public meeting was sent out to interested parties and the meeting changed to August.*

<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 water quality and habitat 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> <p><i>If you live near a CAFO and the trucks are spreading manure, please take a picture and text Sandy at 419-367-1691 Likewise if you can test manure area ditches after heavy rains.</i></p> <ul style="list-style-type: none"> <li>• <b>August 9 Public Mtg on 1.5 million more chickens – see website for more information.</b></li> <li>• <b>August 20 at 6:30 Lake Erie Dinner Cruise with guest speaker Dr. Jeff Reuter, Retired OSU Ohio Sea Grant Director – see web site for information and registration.</b></li> <li>• <b>September 7 at 7 pm Toledo Yacht Club (and Virtual) Lake Erie Waterkeeper meeting. Share your fishing, algae, boating, manure stories.</b></li> <li>• <b>October 5 at 7 pm Toledo Yacht Club (and Virtual) Lake Erie Waterkeeper meeting. Share your fishing, algae, boating,</b></li> </ul>
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