

Lake Erie Harmful Algal Bloom Forecast

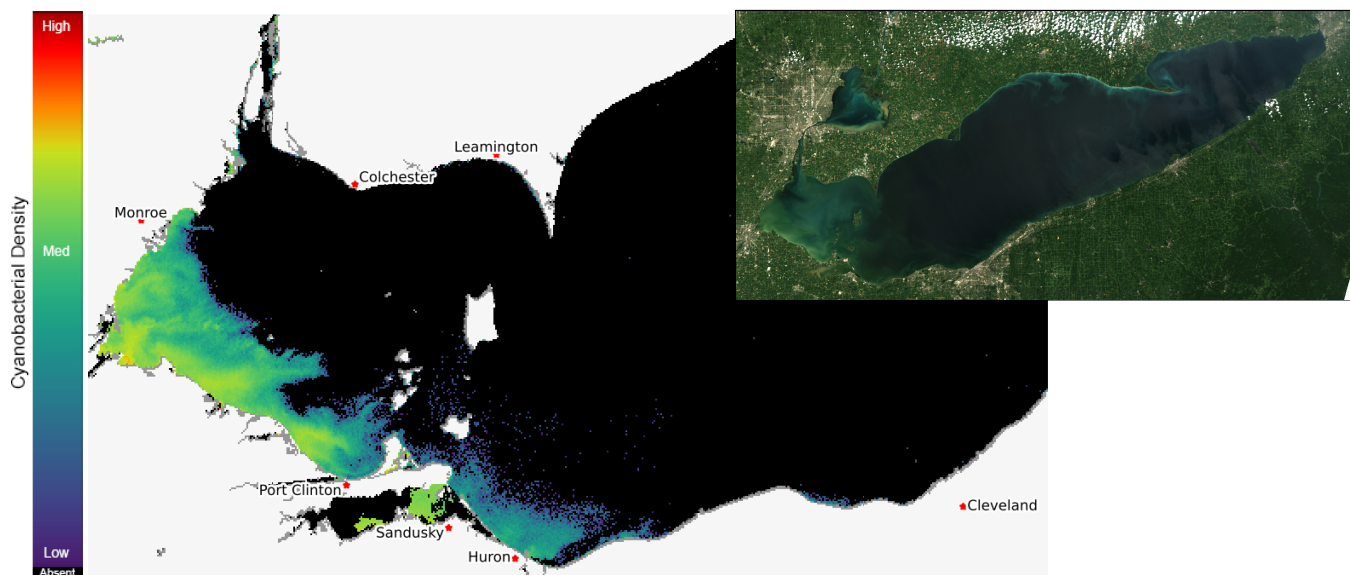


NATIONAL CENTERS FOR COASTAL OCEAN SCIENCE

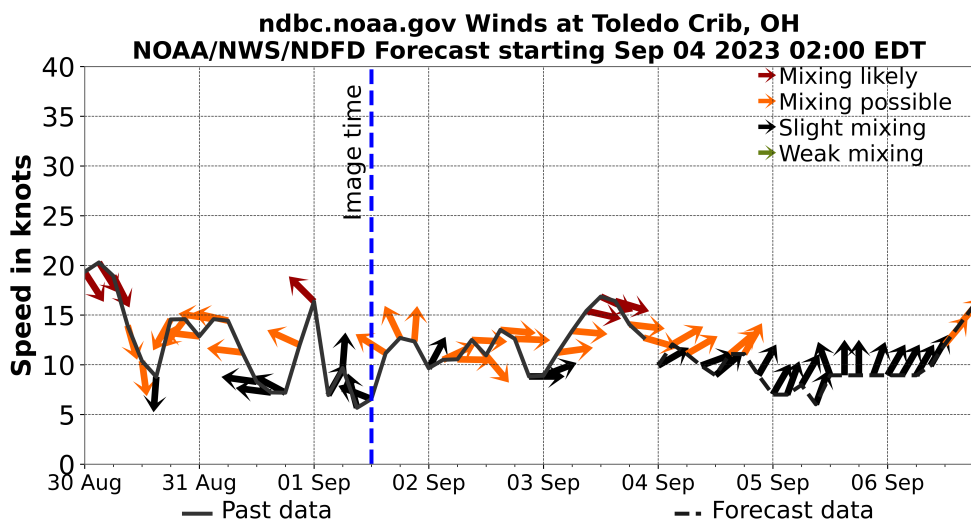
Imagery Analysis & Forecast - 2023-09-03

The cyanobacteria bloom in western Lake Erie has an approximate area of 380 square miles, which is an increase in area since Aug 28. The cyanobacteria bloom extends from Stony Point, MI past Huron, OH and into the western basin. Highest cyanobacteria concentrations are observed in Maumee Bay and along the southern shore towards Port Clinton. The western basin bloom is currently a mix of *Microcystis* and *Dolichospermum*, as confirmed by field sampling. Sandusky Bay has a local bloom of mixed cyanobacteria. No recent toxin data currently available. --A. Hounshell 8/30/2023.

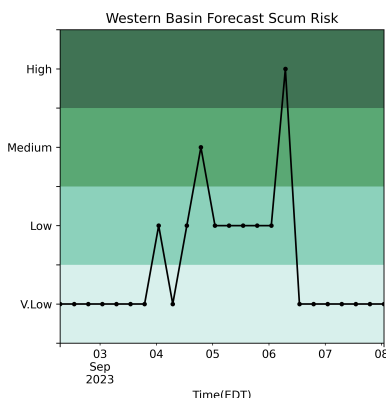
The past few days of imagery can be seen at [the HAB monitoring site](#). The Lake Erie Forecast is operated by the National Centers for Coastal Ocean Science. Contact hab@noaa.gov for technical Questions. Last Updated: 2023-09-03 11 PM EST



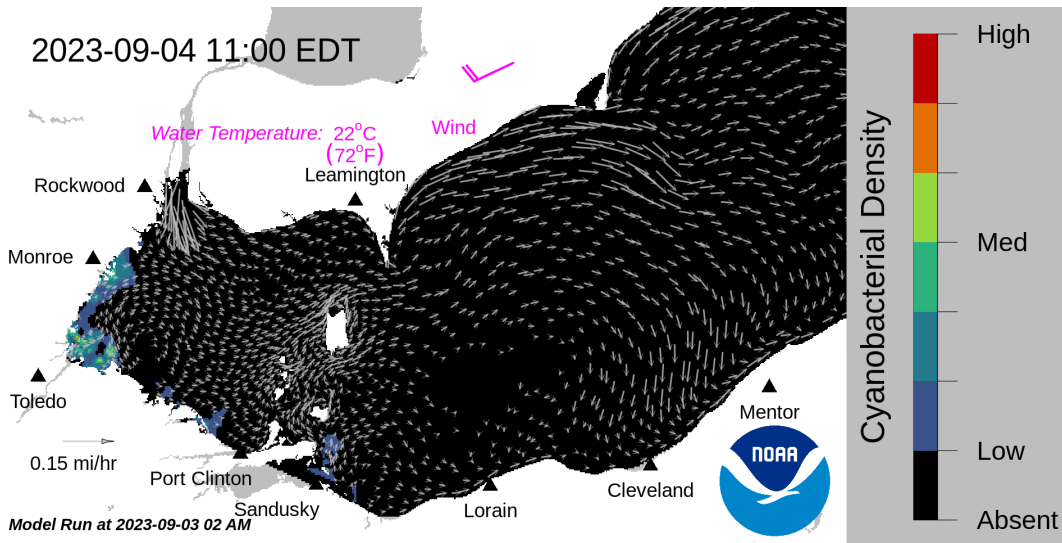
Current Lake Erie Sentinel-3 satellite imagery from the Ocean and Land Color Imager (OLCI) on Sep 01, 2023, showing bloom location and extent in the western basin. Grey indicates clouds or missing data. The estimated threshold of cyanobacteria detection is 20,000 cells/mL. Inset shows a truecolor image of the entire lake. Data derived from Copernicus Sentinel-3.



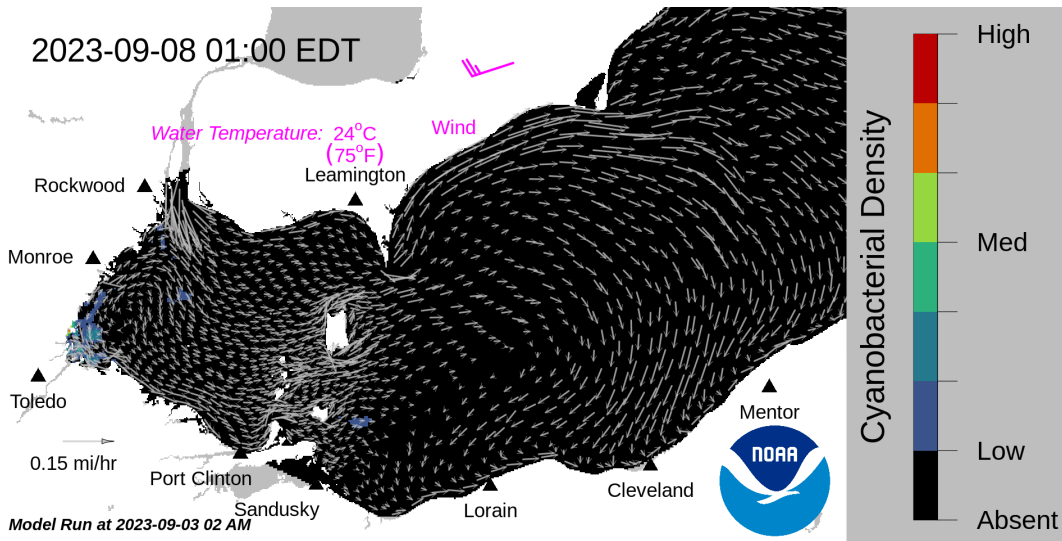
Wind speed and direction from ToledoCrib, OH. Blooms mix through water column at wind speeds > 15 knots.



Where the bloom is present in western Lake Erie, the potential risk of scum.



Forecast surface bloom position for Sep 04, modeled from the last satellite image with water currents estimated from the Lake Erie Operational Forecast System (LEOFS). Potential for bloom movement is forecast in 3-dimensions with a hydrodynamic model using satellite imagery and currents. The modeled output does not contain clouds. Black indicates the absence of chlorophyll and gray indicates area with no data. The arrows show forecasted currents. Water temperature and winds (in magenta) are the averages for the western basin from the model.



Forecast surface bloom position for Sep 08. Black indicates the absence of chlorophyll and gray indicates area with no data. The arrows show forecasted currents. Water temperature and winds (in magenta) are the averages for the western basin from the model.

Additional resource:

- [Archived Lake Erie Forecasts](#)
- [More information about our bloom monitoring imagery](#)
- [FAQs - Frequently Asked Questions about cyanobacteria and the forecasts NOAA issues](#)
- [Contributors and Data Providers](#)
- [Lake Erie HAB Forecast Guide - User guide to help navigate the forecast products](#)