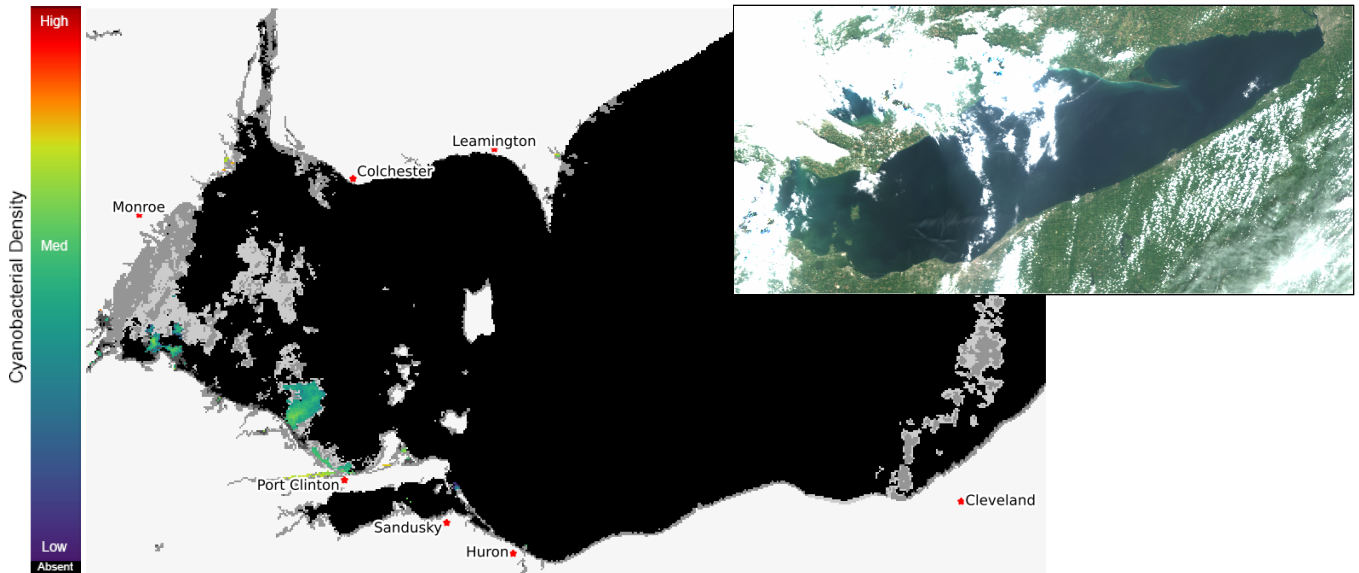


Lake Erie Harmful Algal Bloom Forecast

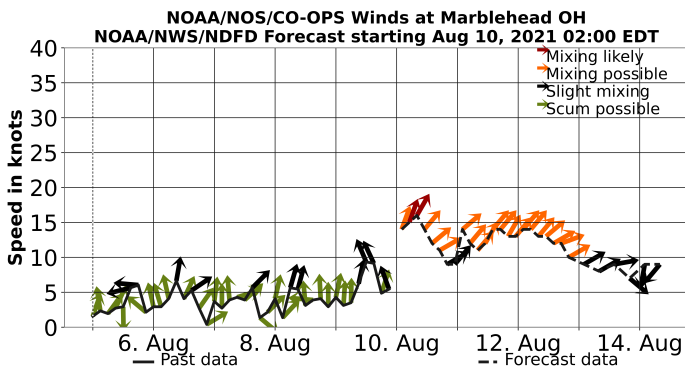
Imagery Analysis & Forecast - 2021-08-09



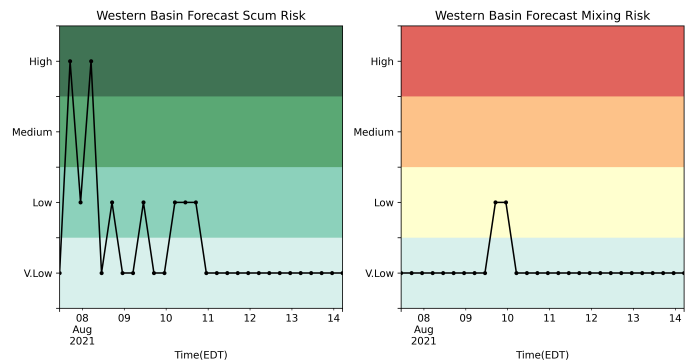
The *Microcystis* cyanobacteria bloom is present in western Lake Erie but cloud cover and winds prevent determining the area. The bloom has shifted somewhat westward along the Ohio coast over the weekend. 10 mph and greater winds have reduced surface concentration, and may continue so this week. Higher concentrations are found between Maumee Bay and Catawba, although bloom may extend to Michigan coast, which was obscured by clouds last few days. Traces of cyanobacteria are detectable in Sandusky Bay. This is unrelated to western Lake Erie blooms. The seasonal forecast was issued June 30. No recent toxin data currently available. --Stumpf 08/09



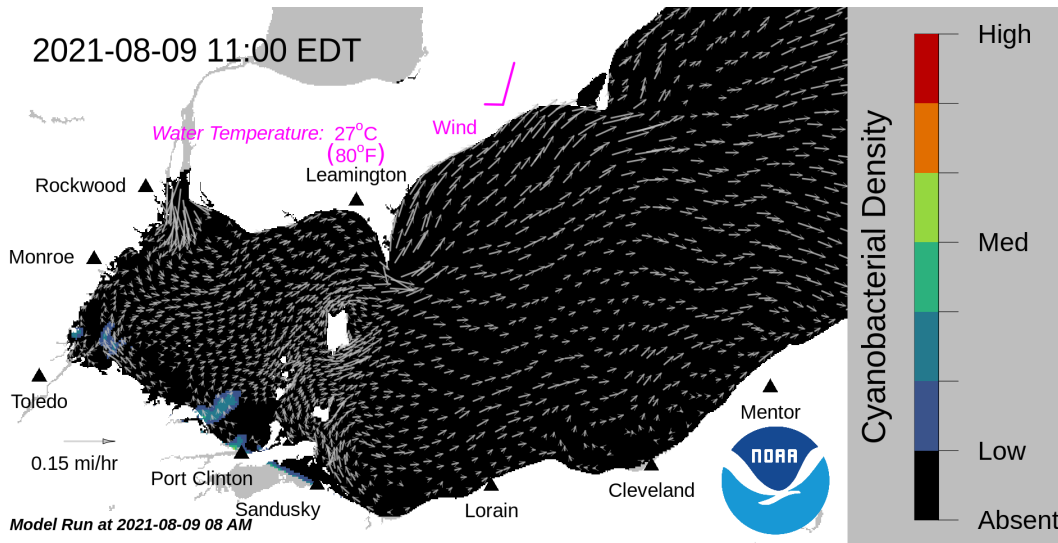
Current Lake Erie Sentinel-3 A and B composited satellite imagery from the Ocean and Land Color Imager (OLCI) on Aug 07, 2021, showing bloom location and extent in the western basin. Grey indicates clouds or missing data. The estimated threshold of cyanobacteria detection is 20,000 cells/mL. Inset shows a truecolor composite image of the entire lake. Data derived from Copernicus Sentinel-3.



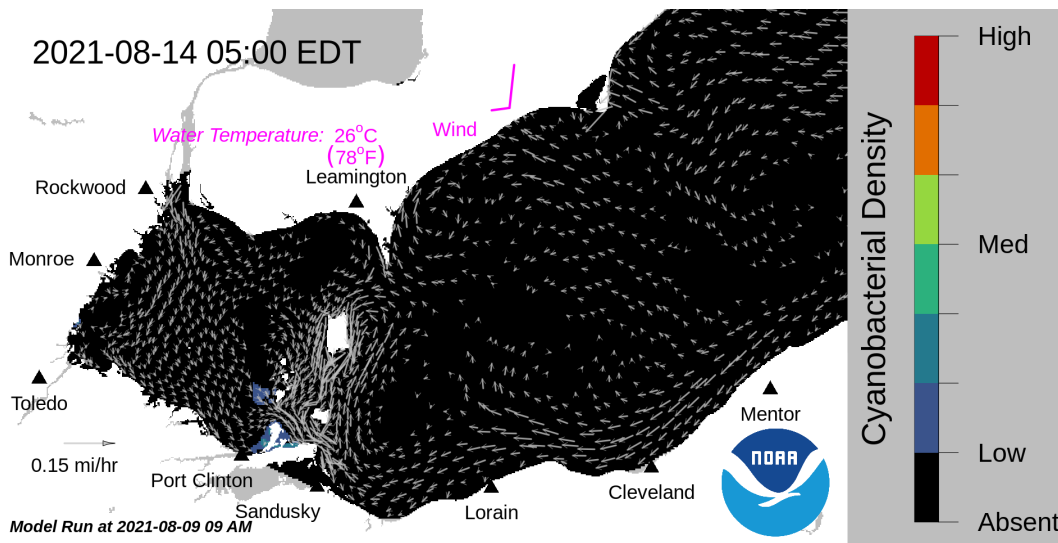
Wind speed and direction from Marblehead, OH. Blooms mix through water column at wind speeds > 15 knots.



Where the bloom is present in western Lake Erie, the potential risk of scum (left), and risk of mixing of the bloom down into the water column every 6 hours over the next 5 days. Mixing is weakest during mild winds.



Forecast surface bloom position for Aug 09, 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 Aug 14. 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](#)