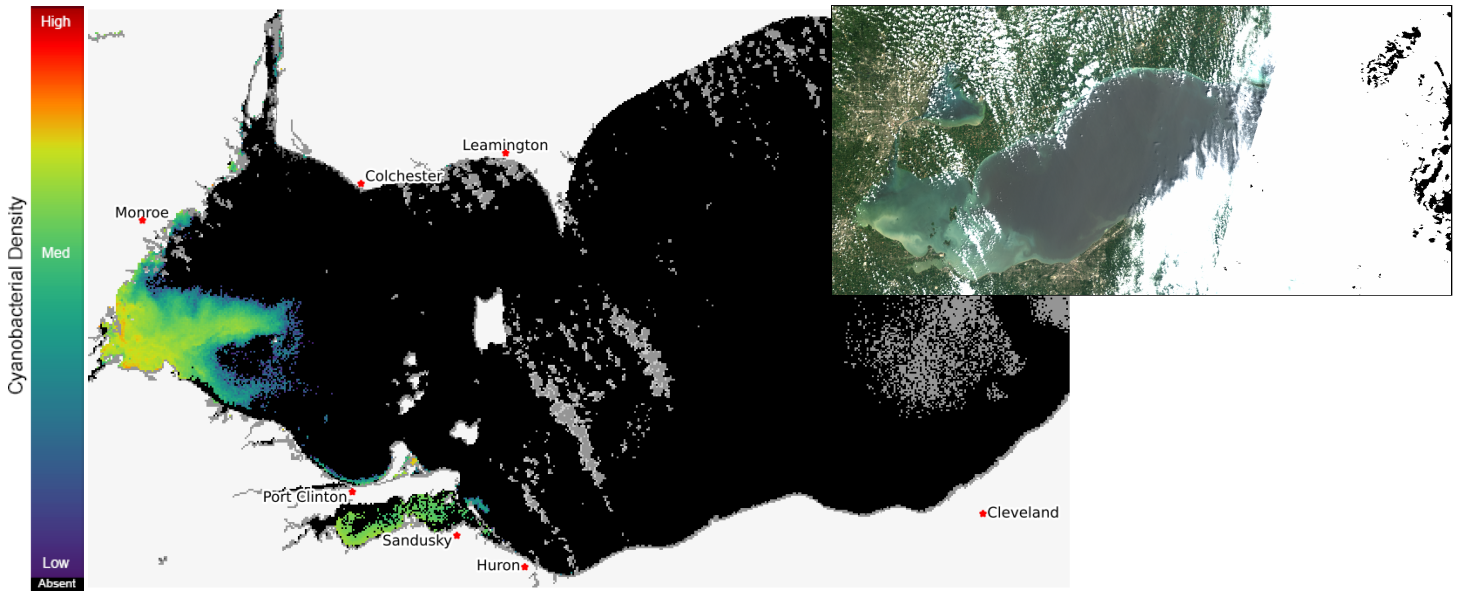
Lake Erie Harmful Algal Bloom Forecast

2024-08-09

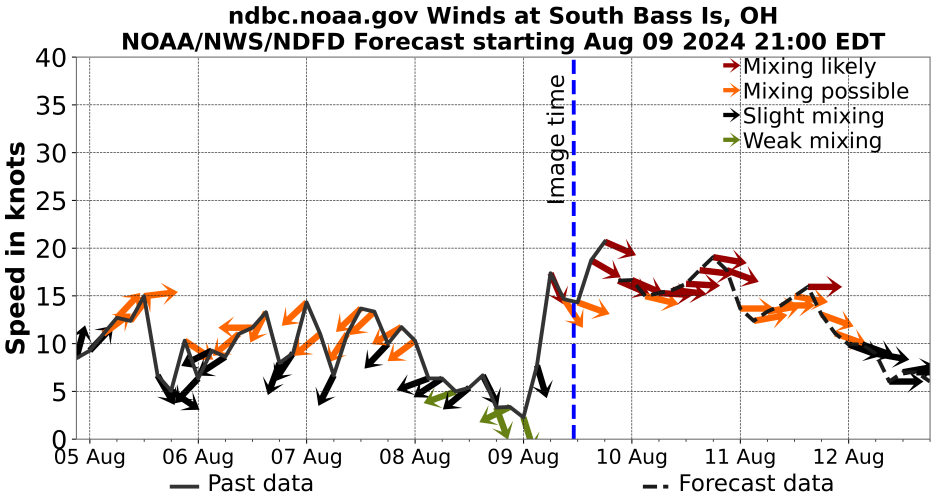
Summary

The cyanobacteria bloom is present in western Lake Erie but cloud cover or winds above 9.0 mph prevent determining the area. Over the past several days, windy conditions have caused a high degree of mixing in the lake leading to lower cyanobacteria concentrations at the surface and more sediment resuspension. These factors may be obscuring the *Microcystis* bloom extent and intensity captured in satellite imagery from 09 August, particularly east and south of West Sister Island, OH. Sandusky Bay has a local bloom of mixed cyanobacteria. No recent toxin data currently available. --NCCOS HAB Forecasting Team 9 August 2024

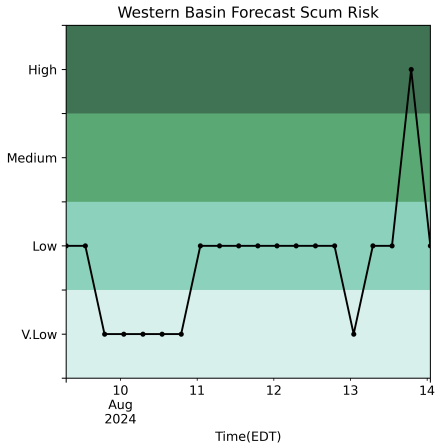
The past few days of imagery can be seen at the HAB monitoring site. The Lake Erie Forecast is operated by the National Centers for Coastal Ocean Science. Contact hab@noaa.gov for technical Questions. Last Updated: 2024-08-09 09 PM EST



Current Lake Erie Sentinel-3 satellite imagery from the Ocean and Land Color Imager (OLCI) on Aug 09, 2024, 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 SouthBassIs, 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.

For more information visit: coastalscience.noaa.gov/science-areas/habs/hab-forecasts/lake-erie/

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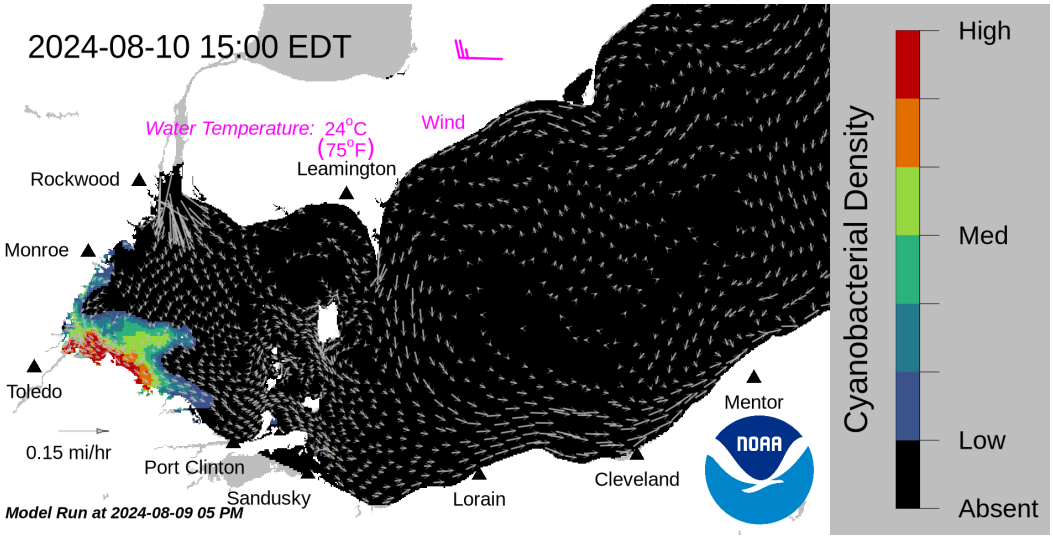
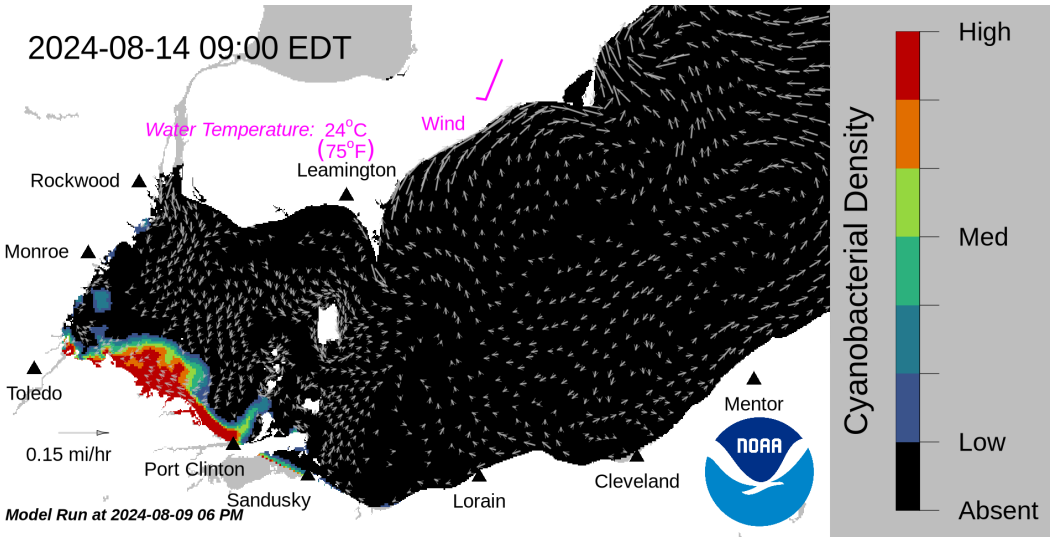


Forecast surface bloom position for Aug 10, modeled from the last satellite image with water currents estimated from the Lake Erie Operational Forecast System (LEOFS). Potential for bloom movement is forecast in 3-dimensions with a hydrodynamic model using satellite imagery and currents. The modeled 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 resources:

- 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
- Lake Erie Hypoxia Forecast

For more information visit: coastalscience.noaa.gov/science-areas/habs/hab-forecasts/lake-erie/

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