



Lake Erie Harmful Algal Bloom Bulletin

12 August, 2019, Bulletin 13

Analysis

The *Microcystis* cyanobacteria bloom continues in the western basin of Lake Erie. Satellite imagery (8/11) shows the bloom extending from Maumee Bay north along the Michigan coast to Brest Bay, east along the Ohio coast to the Marblehead Peninsula; and offshore up to 3 miles west of Pelee Island. Observed winds over the weekend (8/9-11) promoted mixing, reducing visible surface concentrations from earlier imagery. Measured toxin concentrations continue to exceed the recreational threshold in Maumee Bay. *Keep pets and yourself out of the water in areas where scum is forming.* The persistent cyanobacteria bloom in Sandusky Bay continues. No other blooms are present in Lake Erie.

Forecasts

Winds (5-9 kn) forecast today through Thursday (8/12-15) will promote slight mixing and net southern transport of surface *Microcystis* concentrations alongshore the Michigan coast. -Davis, Keeney

Additional Resources

To find a safe place for recreation, visit the Ohio DOH "BeachGuard" site: <http://publicapps.odh.ohio.gov/beachguardpublic/>
Ohio EPA's site on harmful algal blooms: <http://epa.ohio.gov/HAB-Algae>
NOAA's GLERL provides additional HAB data here: http://www.glerl.noaa.gov/res/HABs_and_Hypoxia

The images below are "GeoPDF". Please visit <https://go.usa.gov/xReTC> for instructions on viewing longitude and latitude.

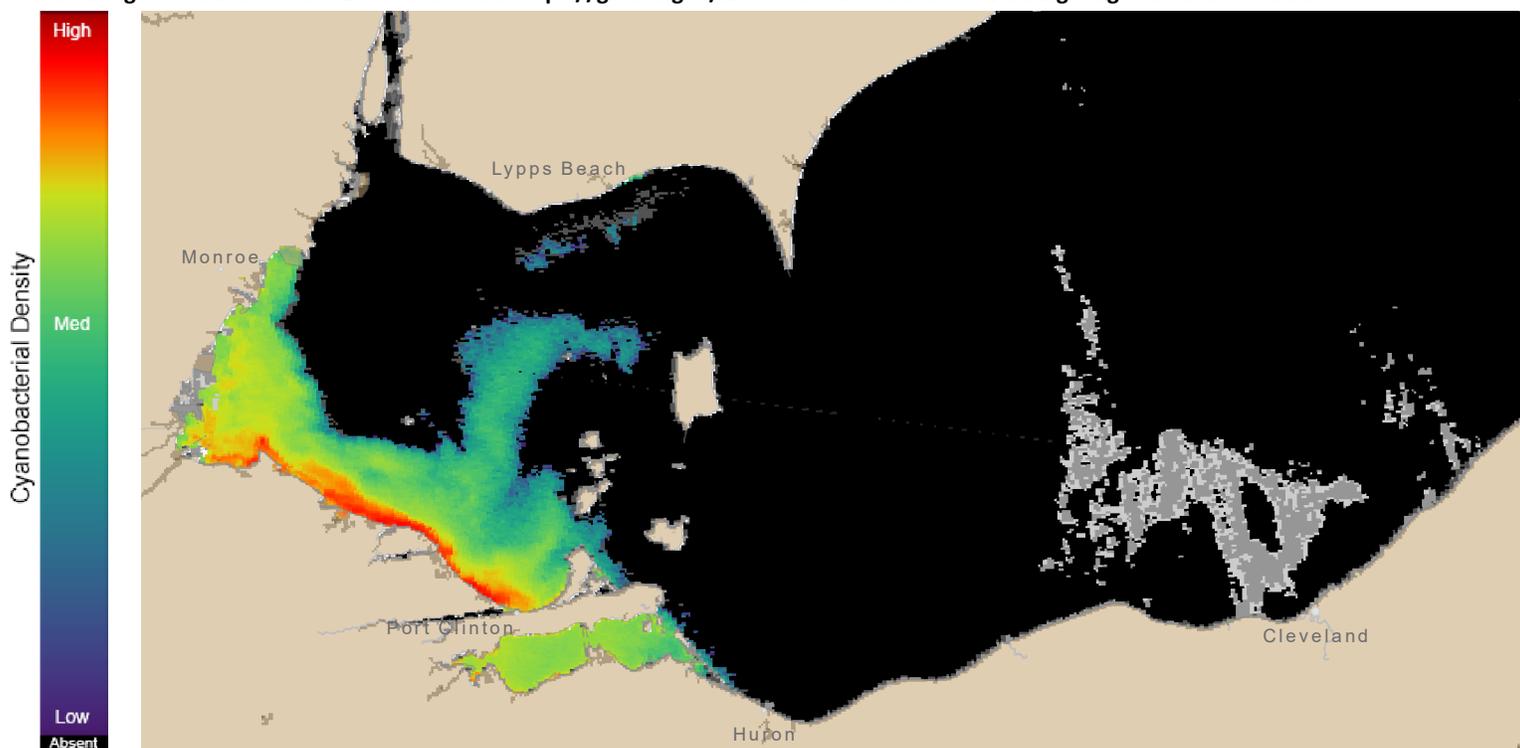


Figure 1. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 11 August, 2019 at 11:20 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

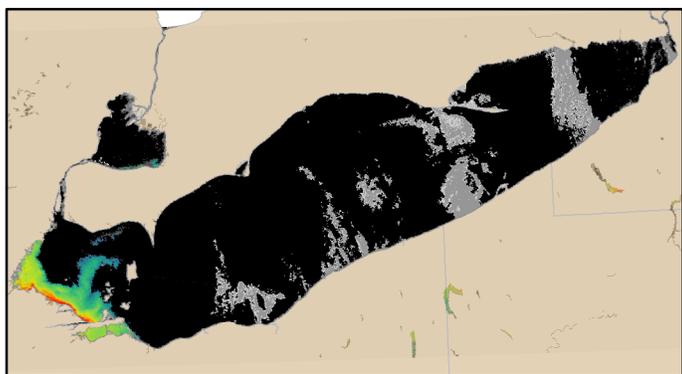
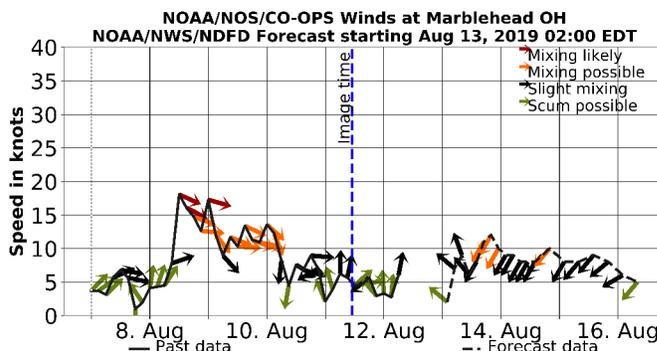


Figure 2. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 11 August, 2019 at 11:20.



Wind speed and direction from Marblehead, OH. Blooms mix through the water column at wind speeds greater than 15 knots (or 7.7 m/s).

For more information and to subscribe to this bulletin, go to: <https://tidesandcurrents.noaa.gov/hab/lakeerie.html>

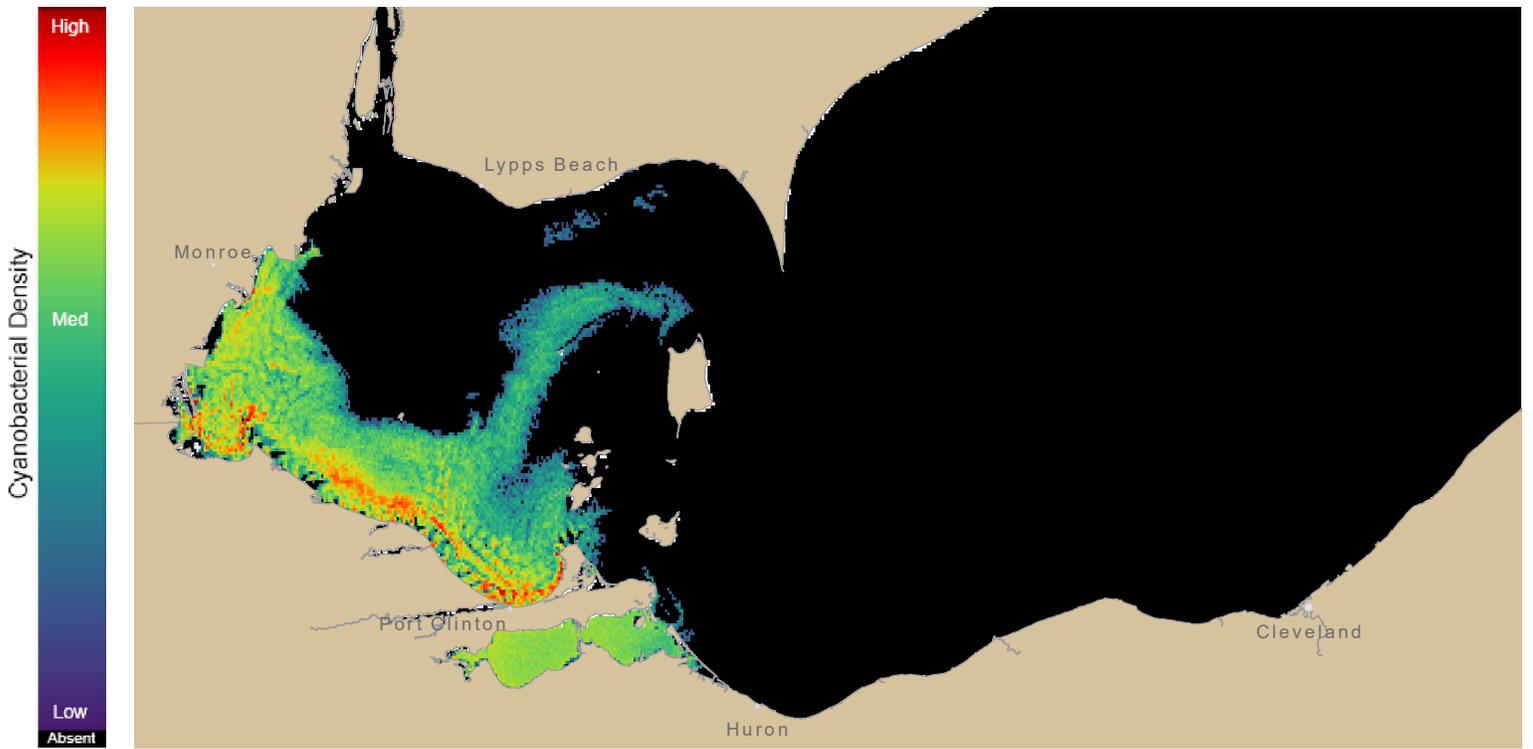


Figure 3. Nowcast position of bloom for 12 August, 2019 using LEOFS modelled currents to move the bloom from the 11 August, 2019

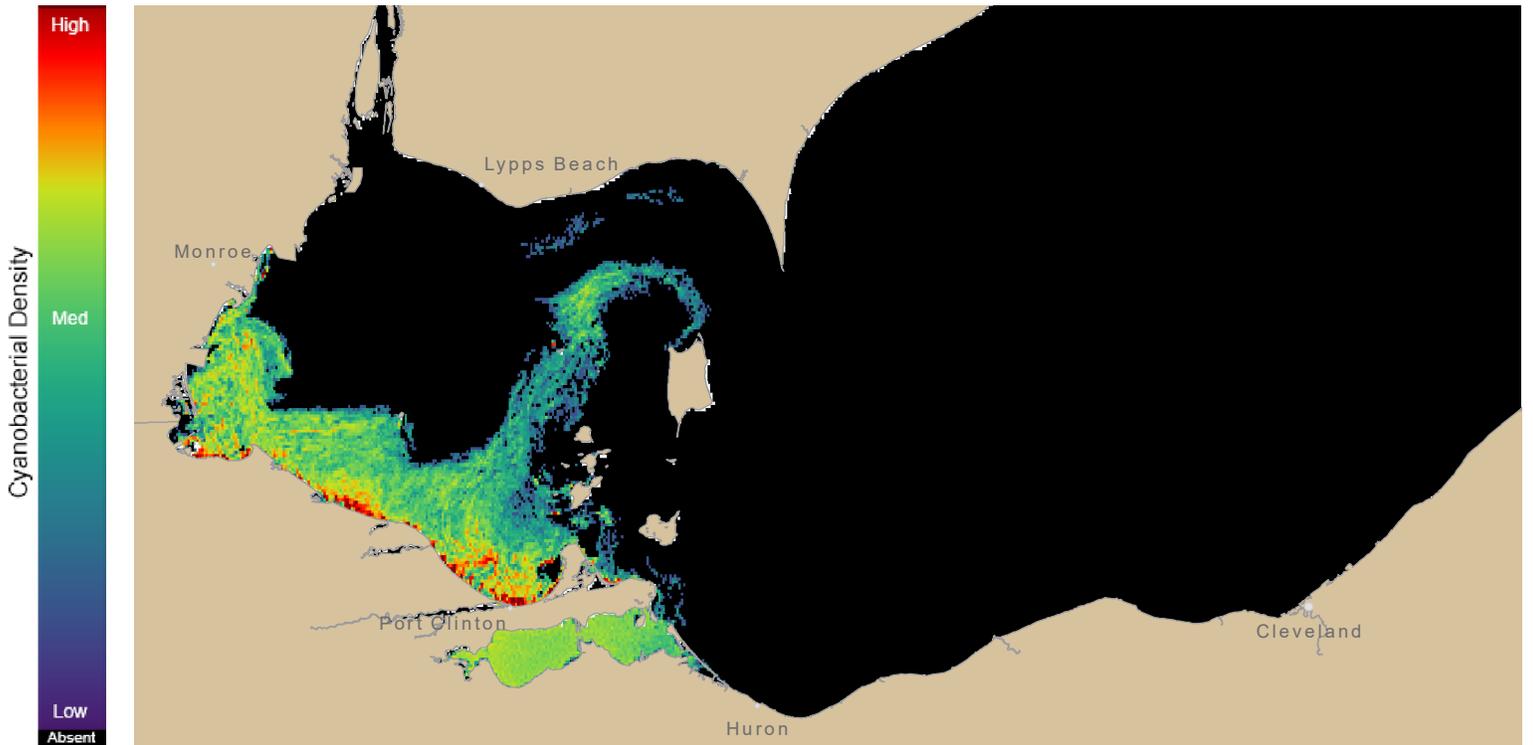
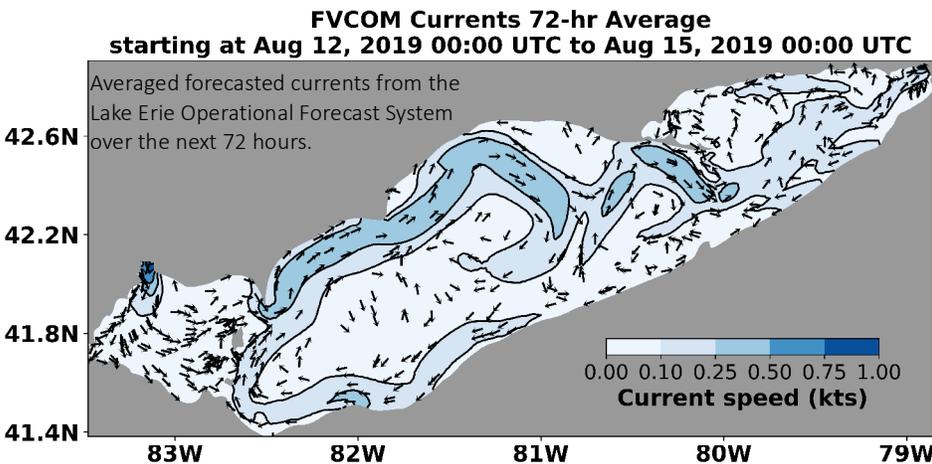


Figure 4. Forecast position of bloom for 15 August, 2019 using LEOFS modelled currents to move the bloom from the 11 August, 2019



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