



Lake Erie Harmful Algal Bloom Bulletin

29 July, 2019, Bulletin 09

Analysis

The *Microcystis* cyanobacteria bloom continues in the western basin of Lake Erie. Sentinel imagery from 7/26 shows the bloom extends from Maumee Bay north along the Michigan coast to Pointe Mouillee, east along the Ohio coast to the Portage River, and offshore from West Sister Island northeast towards the Canadian coast. Observed winds over the weekend (7/27-28) promoted mixing, reducing surface concentrations and scums observed on 7/26. Measured toxin concentrations exceed the threshold where the bloom is most dense (appearing green from a boat). *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 (10-24 kn) forecast today may promote periods of mixing. Eastward transport of surface *Microcystis* concentrations is forecast today through Thursday (7/29-8/1). –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.

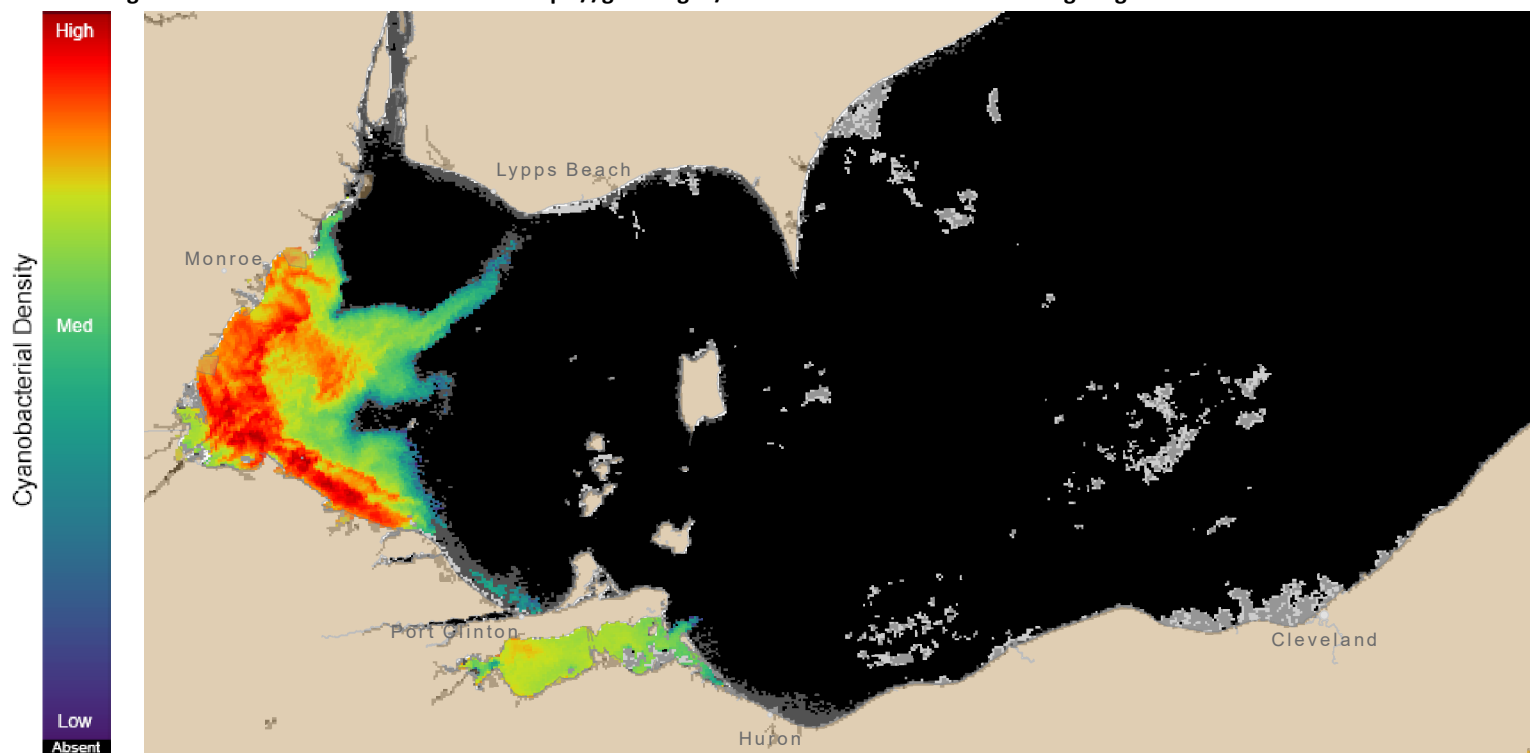


Figure 1. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 26 July, 2019 at 11:35 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/ml

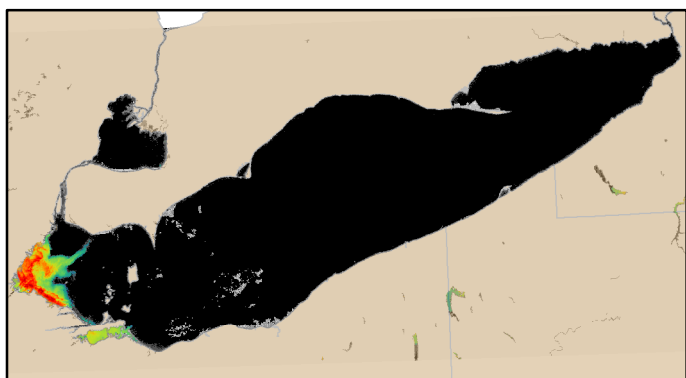
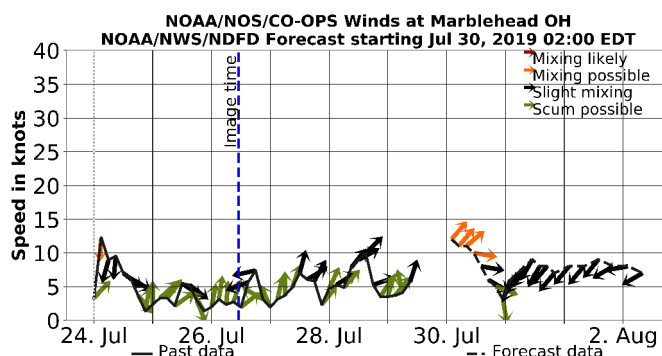


Figure 2. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 26 July, 2019 at 11:35.



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>

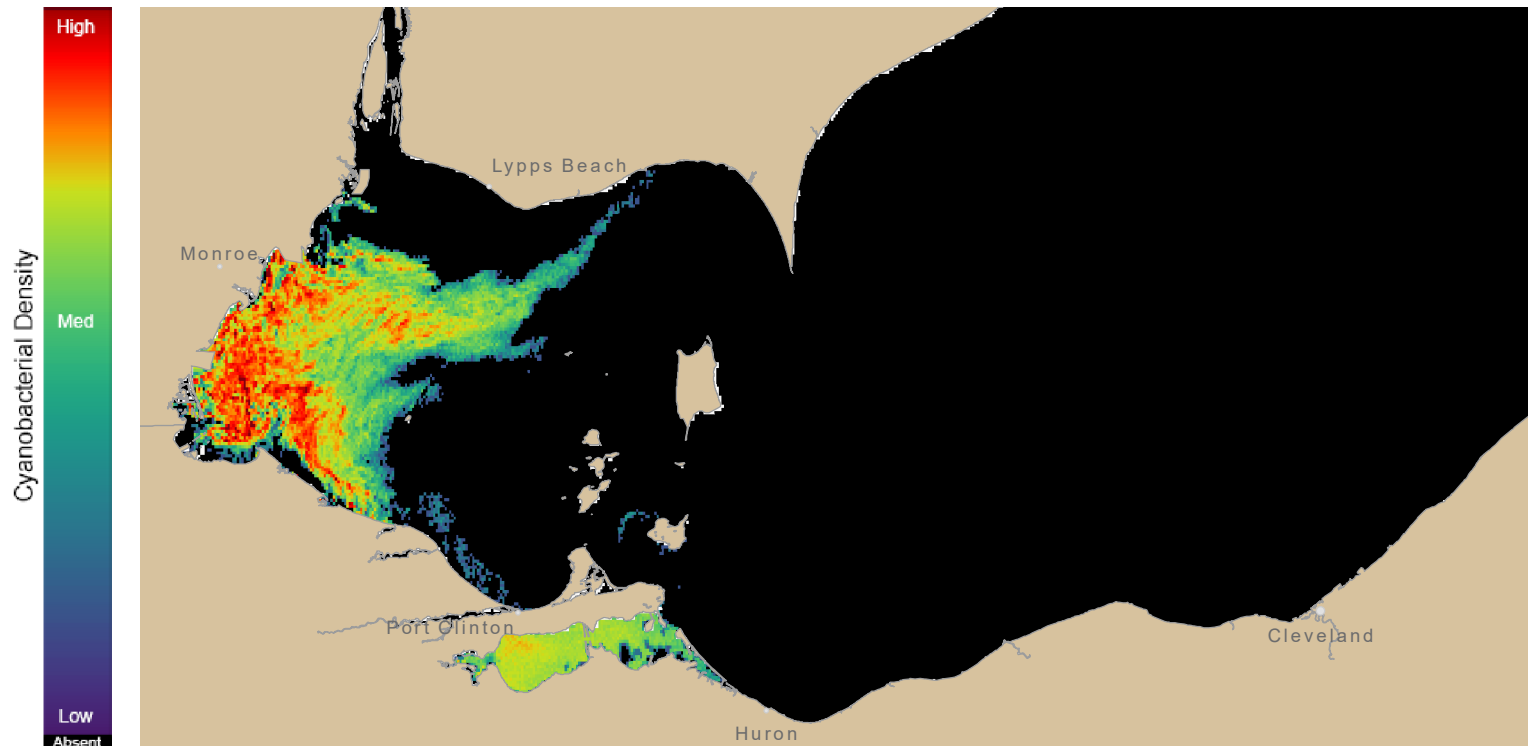


Figure 3. Nowcast position of bloom for 29 July, 2019 using LEOFS modelled currents to move the bloom from the 26 July, 2019 image.

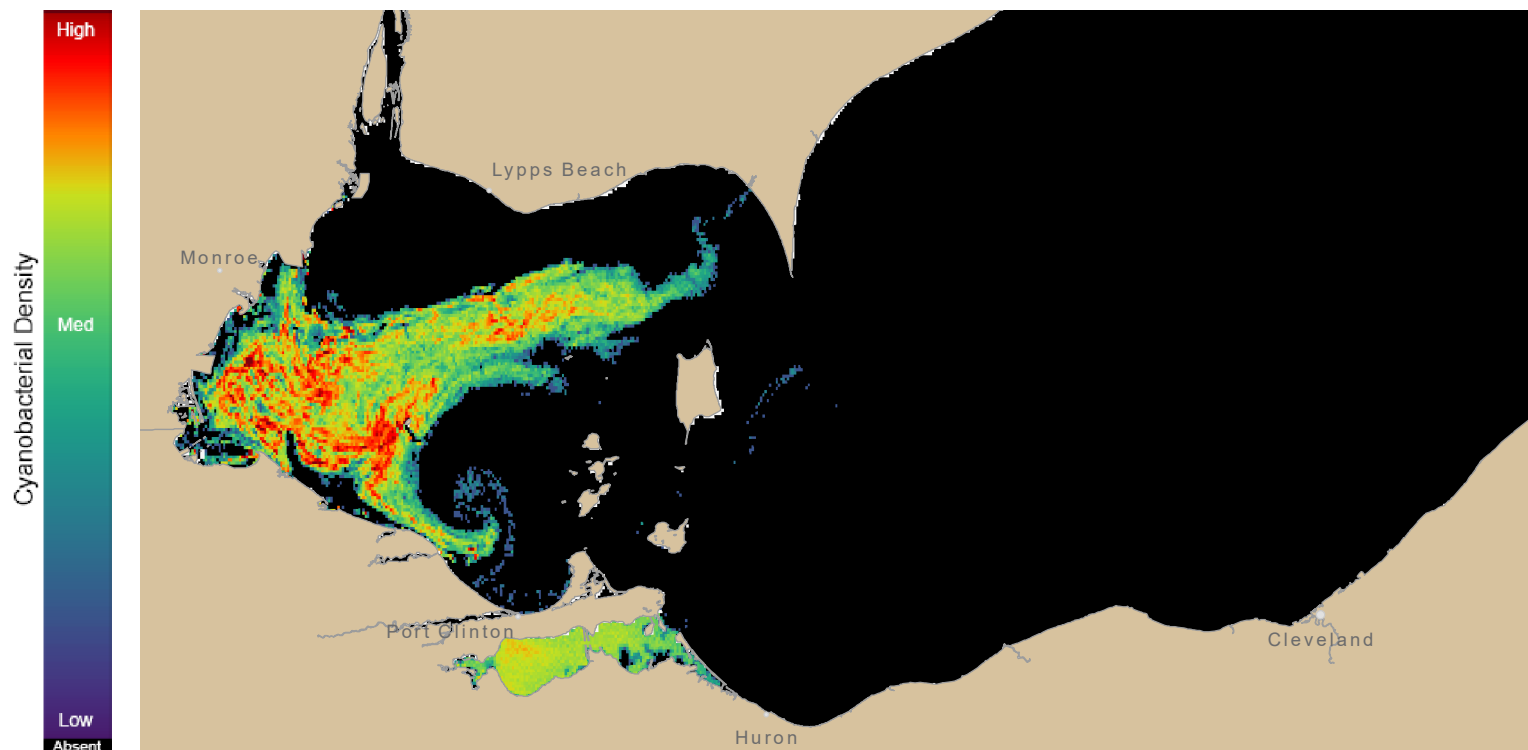
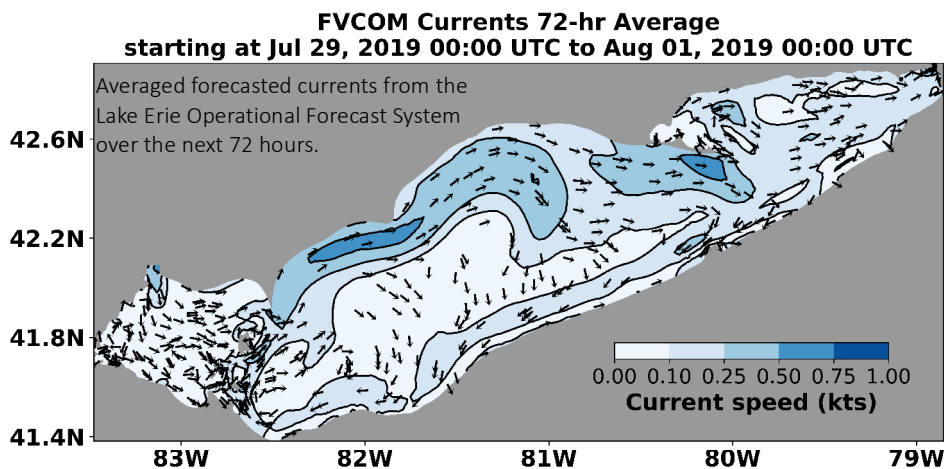


Figure 4. Forecast position of bloom for 31 July, 2019 using LEOFS modelled currents to move the bloom from the 26 July, 2019 image.



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<https://tidesandcurrents.noaa.gov/hab/lakeerie.html>