



Lake Erie Harmful Algal Bloom Bulletin

24 August, 2017, Bulletin 13

The *Microcystis* cyanobacteria bloom continues in the western basin, extending along the Ohio and Michigan coasts, and northeast to the Ontario coast. Observed winds (10-20kn) Tuesday and Wednesday (8/22-23) caused mixing which reduced previously visible surface concentrations. Measured toxin concentrations are below recreational thresholds throughout most of the bloom extent, but concentrations can exceed the threshold in some regions of the western extent of the bloom, particularly in Maumee Bay and northwest of West Sister Island.

Forecast winds (3-12kn) today through Sunday (8/24-27) may cause slight mixing of surface concentrations of *Microcystis*. Winds forecast today through Sunday (8/24-27) may promote the transport of *Microcystis* east past Point Pelee.

Please check Ohio EPA's site on harmful algal blooms for safety information <http://epa.ohio.gov/habalgae.aspx>. Keep your pets and yourself out of the water in areas where scum is forming. NOAA's GLERL provides additional HAB data:

https://www.glerl.noaa.gov/res/HABs_and_Hypoxia. The persistent cyanobacteria bloom in Sandusky Bay continues.

-Kavanaugh, Keeney

The images below are "GeoPDF". To see the longitude and latitude under your cursor, select "Tools > Analyze > Geospatial Location Tool".

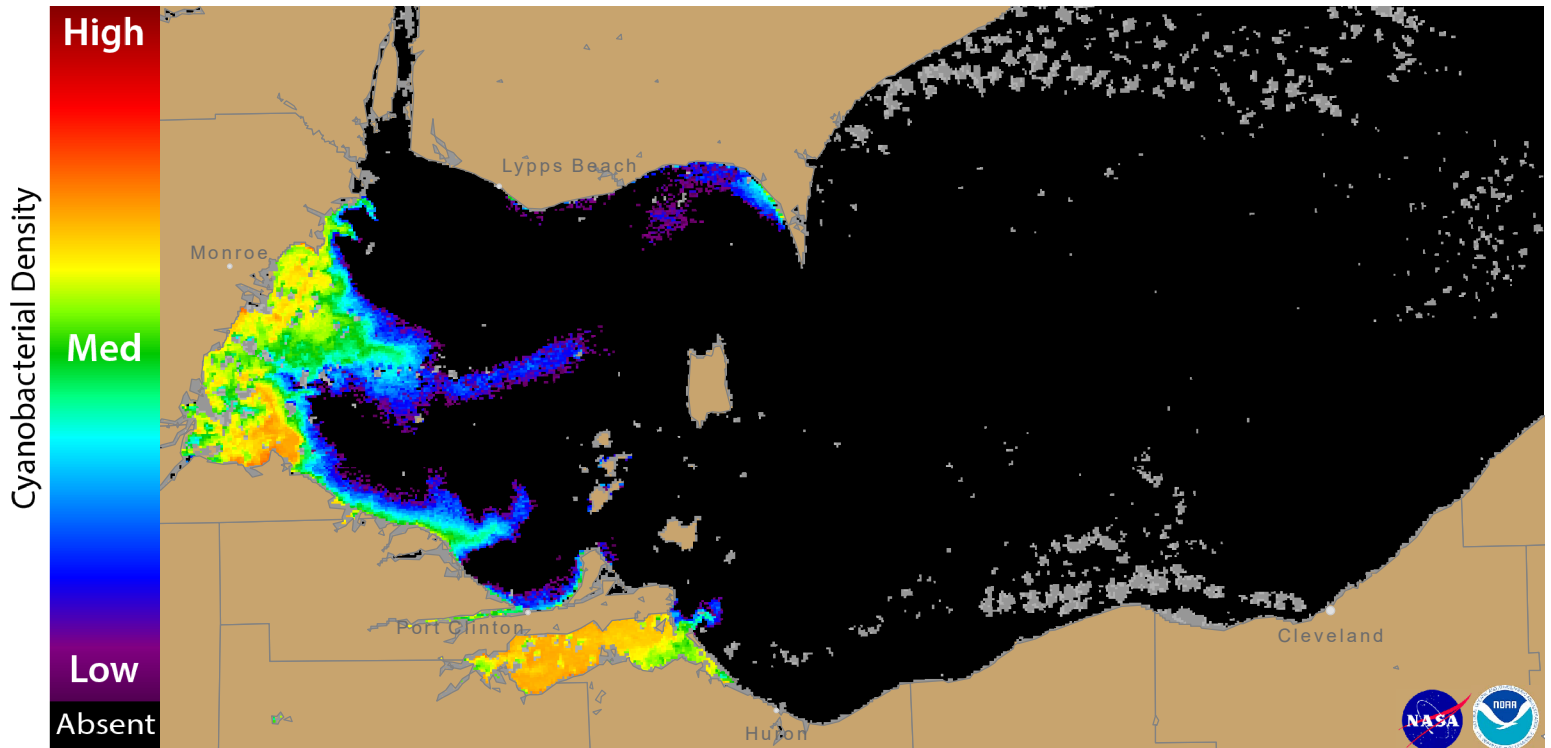


Figure 1. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 23 August, 2017 at 11:37 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

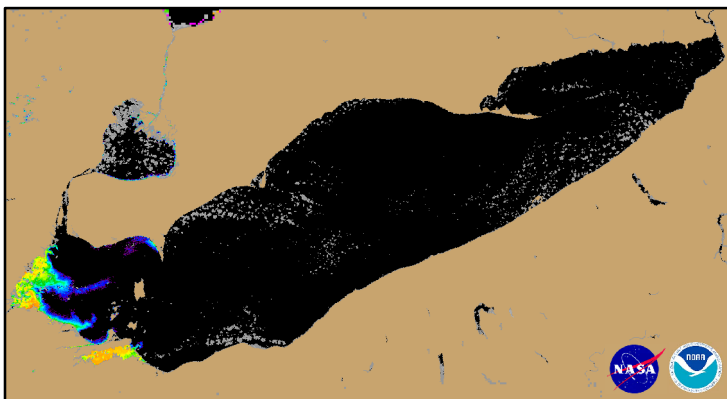
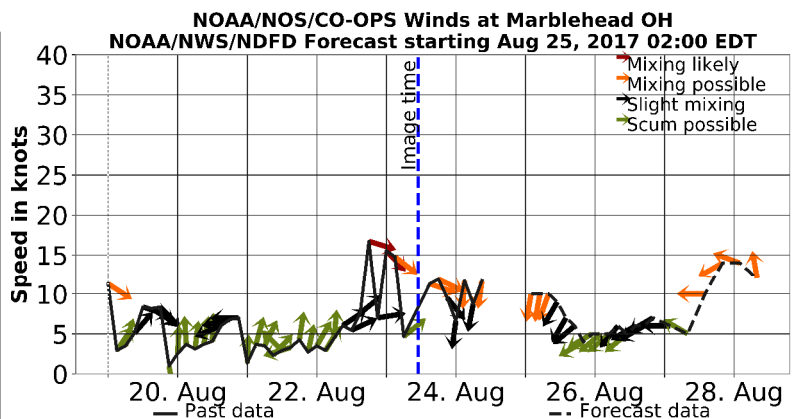


Figure 2. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 23 August, 2017 at 11:37.



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).

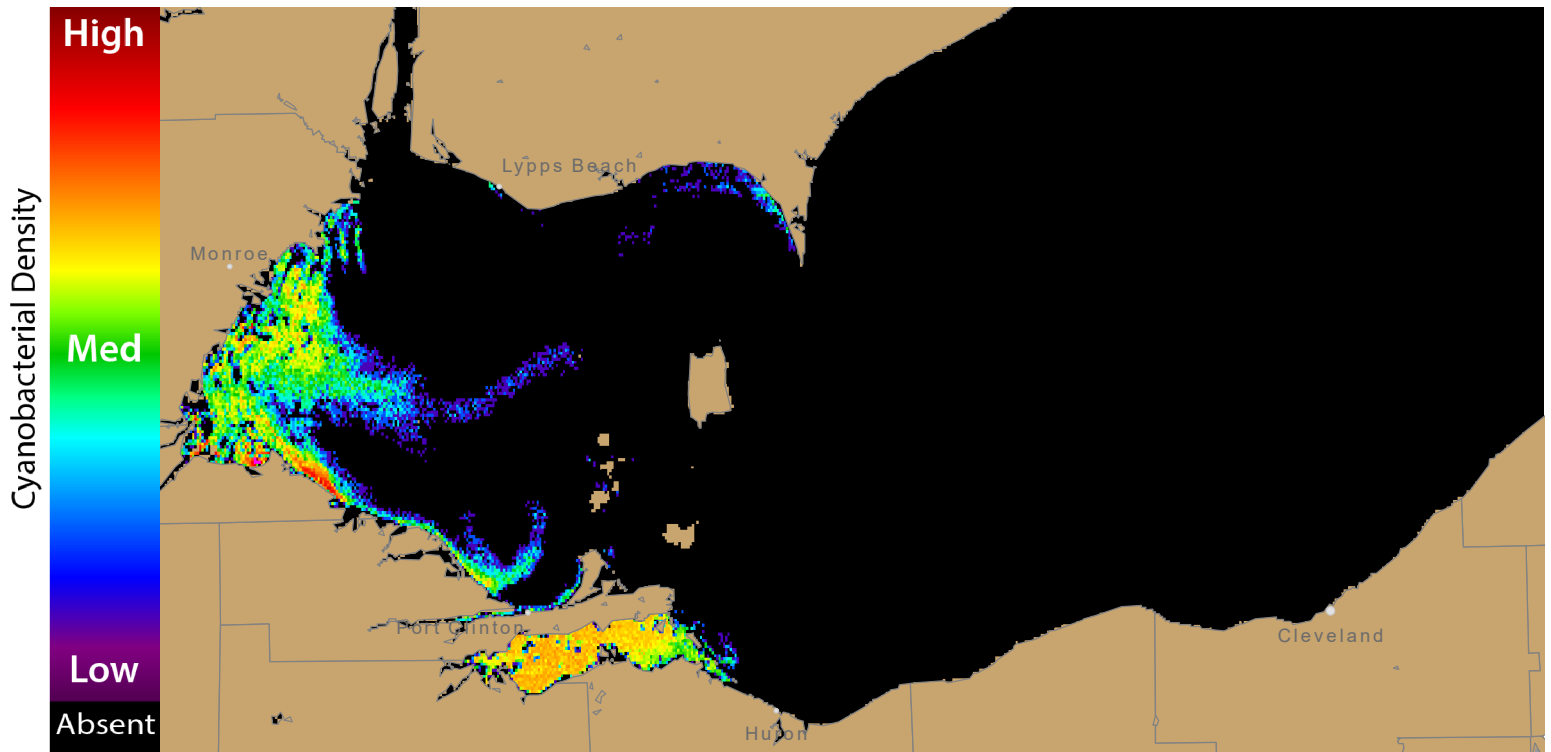


Figure 3. Nowcast position of bloom for 24 August, 2017 using GLFS modelled currents to move the bloom from the 23 August, 2017 image.

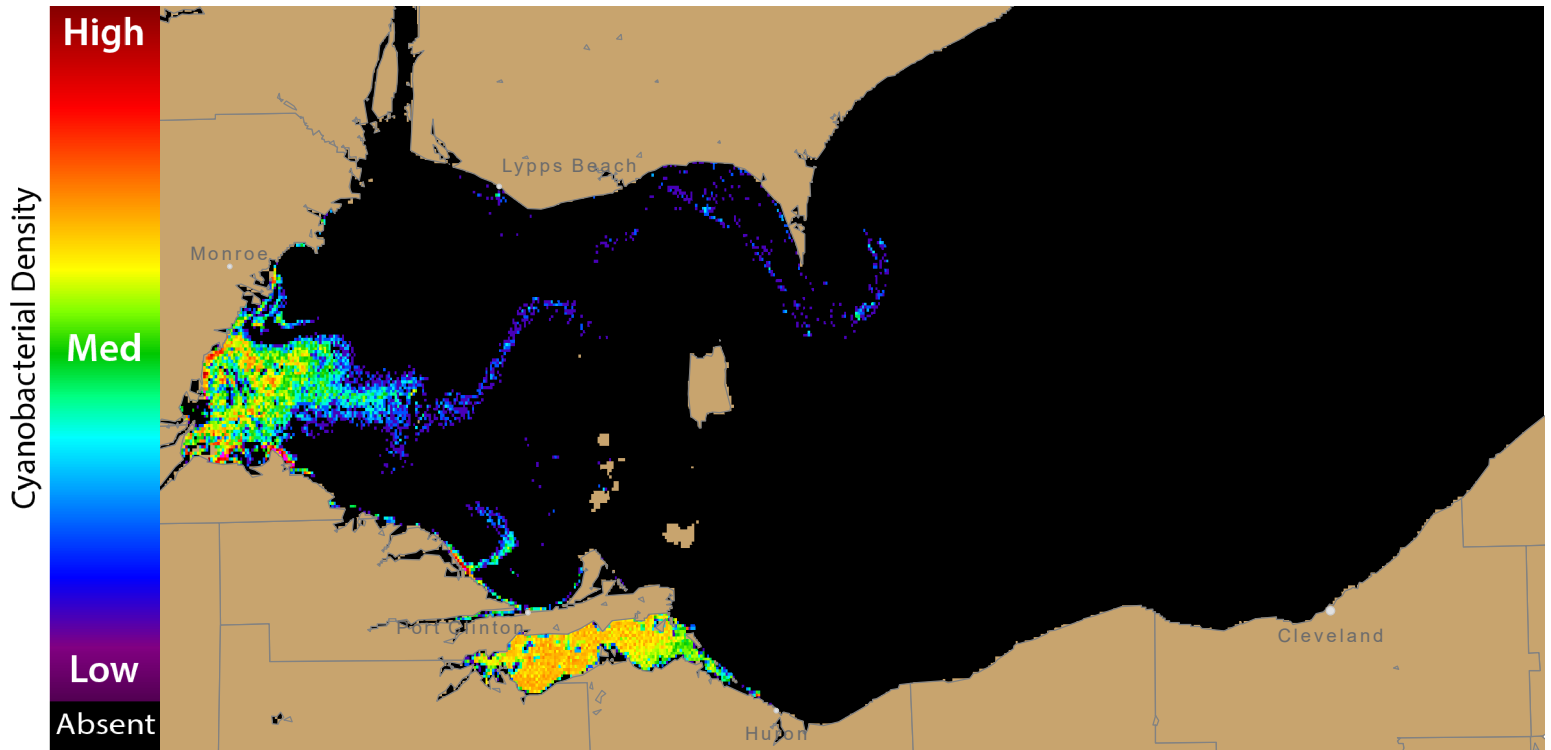
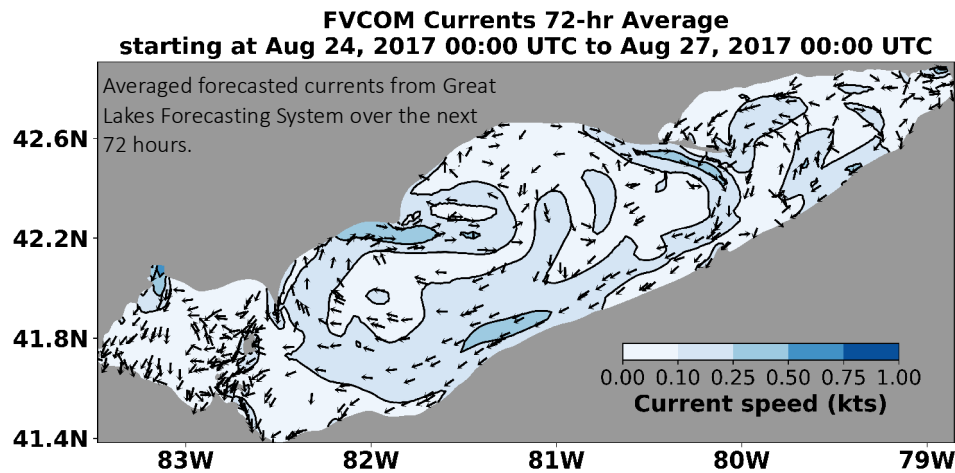


Figure 4. Forecast position of bloom for 27 August, 2017 using GLFS modelled currents to move the bloom from the 23 August, 2017 image.



For more information and to subscribe, please visit the NOAA HAB Forecast page: <https://tidesandcurrents.noaa.gov/hab/lakeerie.html>