



Lake Erie Harmful Algal Bloom Bulletin

21 August, 2017, Bulletin 12

The *Microcystis* cyanobacteria bloom continues in the western basin, extending along the Ohio and Michigan coasts and northeast to the Ontario coast. Scum has been observed offshore Brest Bay and in Maumee Bay. Measured toxin concentrations are below recreational thresholds throughout most of the bloom extent, but concentrations can exceed the threshold in the western extent of the bloom where it is most dense (which would look green from a boat).

Forecast winds (5-18kn) today through Thursday (8/21-24) may cause mixing, reducing surface concentrations of *Microcystis*. Winds forecast today through Thursday (8/20-24) may promote the easterly transport of *Microcystis*. Cloud cover is likely on Tuesday.

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".

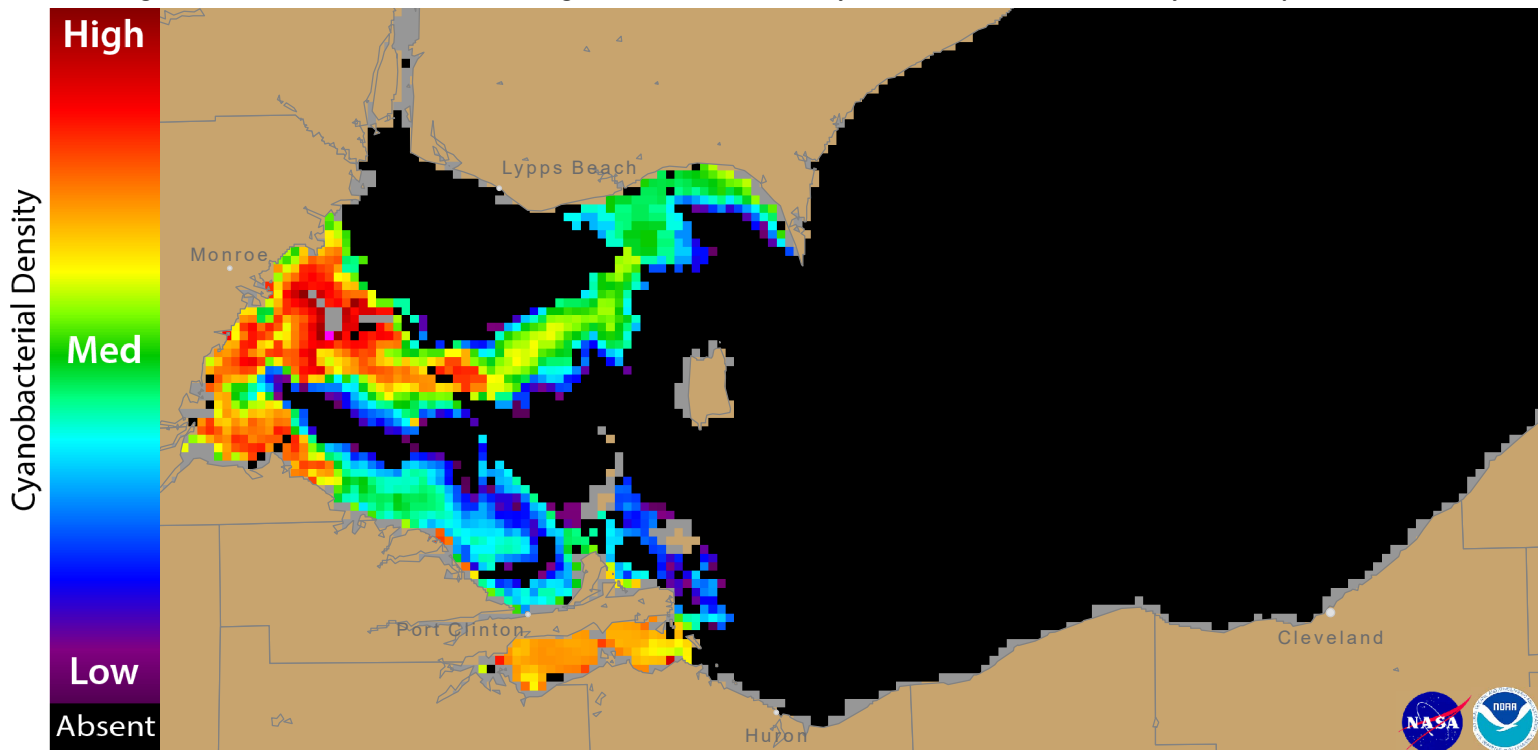


Figure 1. Cyanobacterial Index from NASA MODIS-Aqua & Terra data collected 20 August, 2017 at 13:07 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

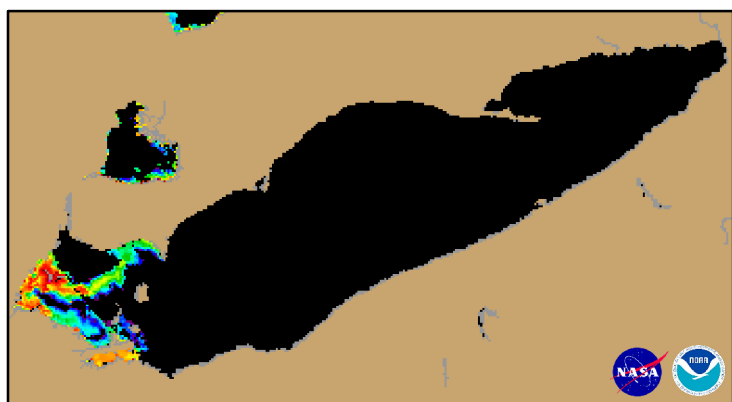
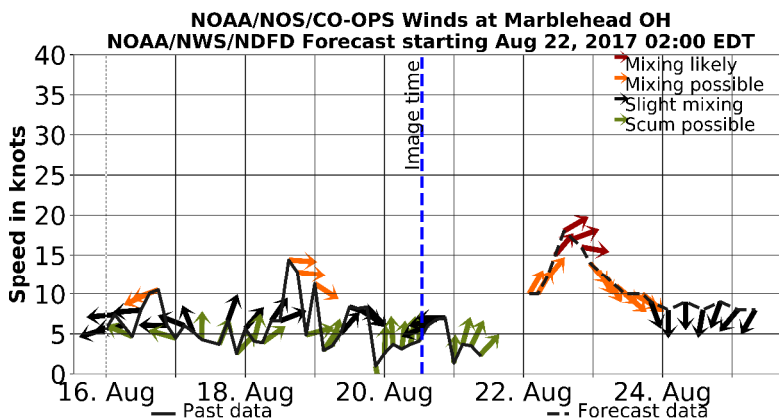


Figure 2. Cyanobacterial Index from NASA MODIS-Aqua & Terra data collected 20 August, 2017 at 13:07.



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).

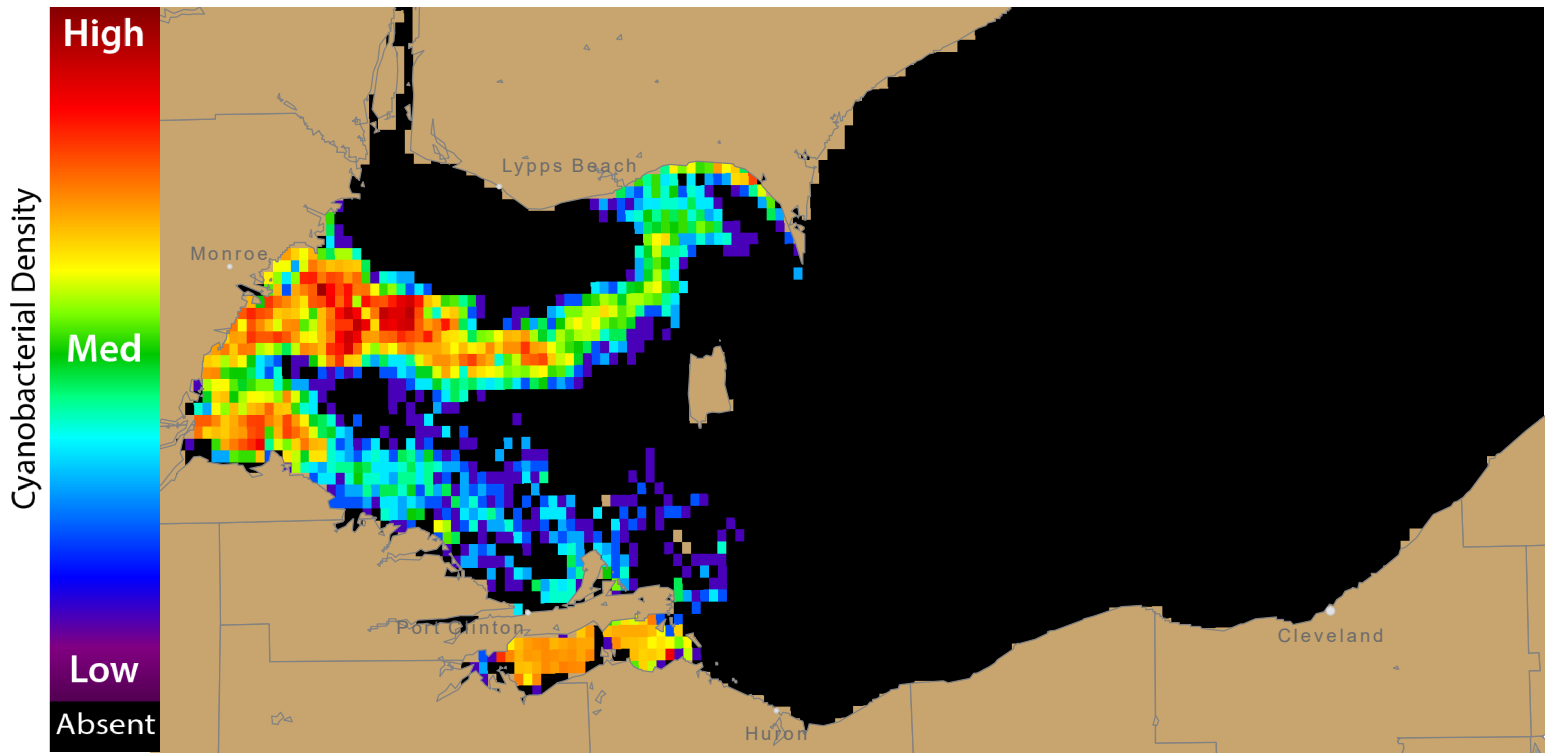


Figure 3. Nowcast position of bloom for 21 August, 2017 using GLFS modelled currents to move the bloom from the 20 August, 2017 image.

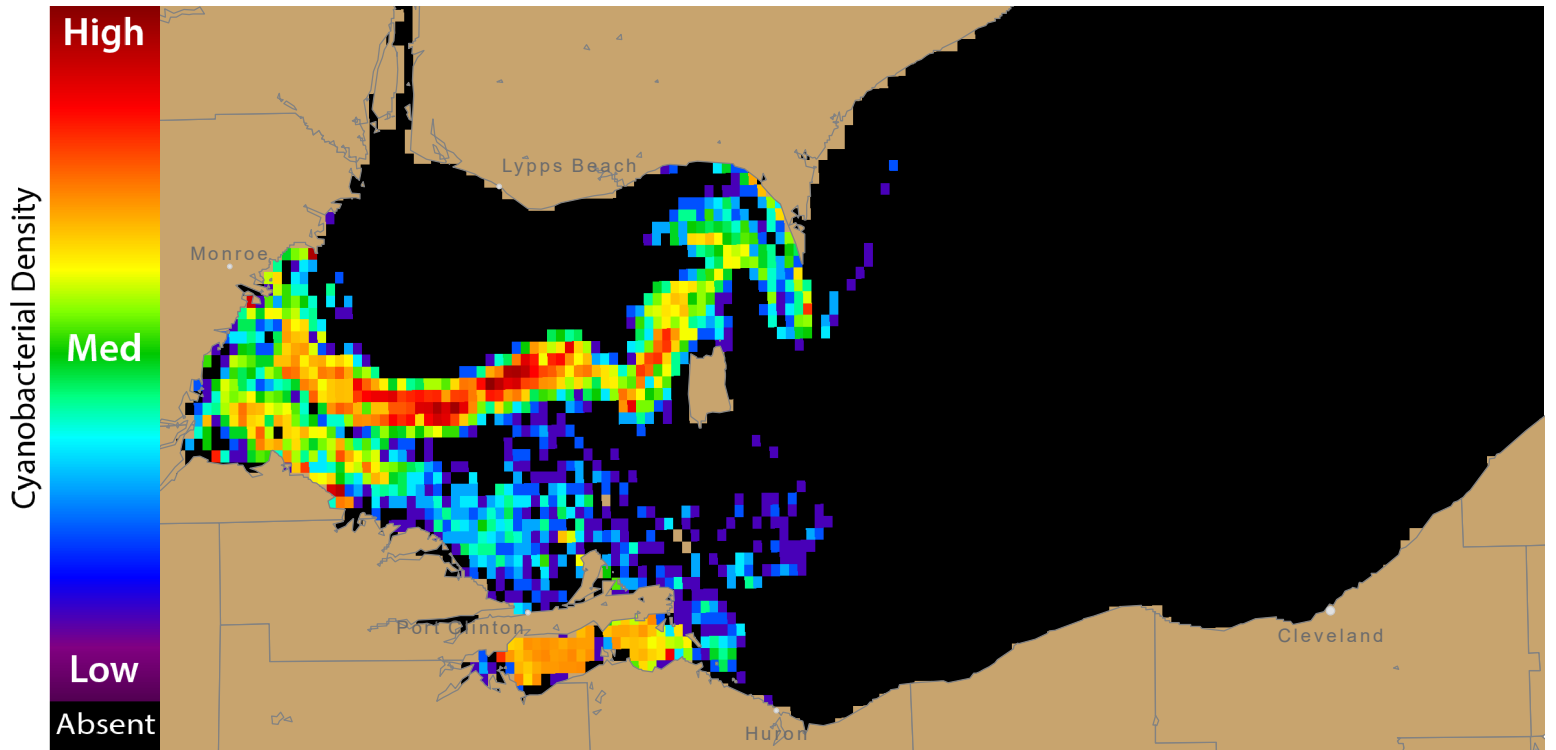
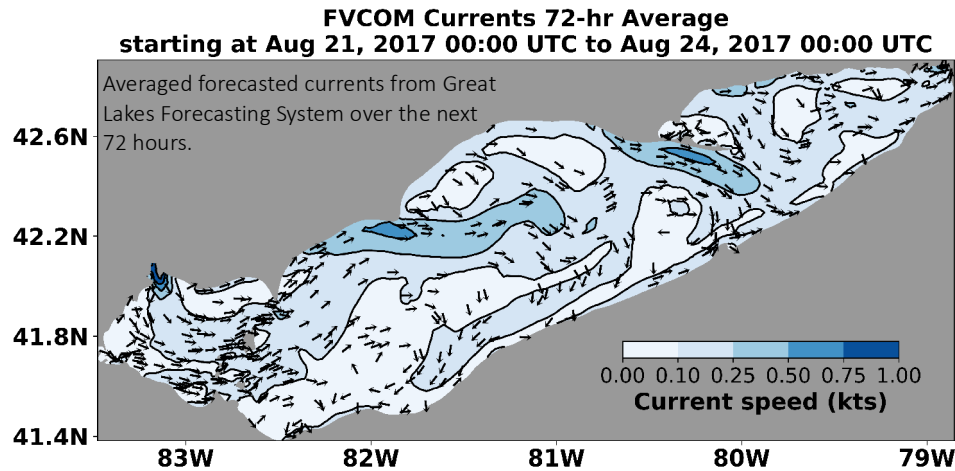


Figure 4. Forecast position of bloom for 24 August, 2017 using GLFS modelled currents to move the bloom from the 20 August, 2017 image.



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