



# Lake Erie Harmful Algal Bloom Bulletin

14 August, 2017, Bulletin 10

The *Microcystis* cyanobacteria bloom continues in the western basin extending north and along the Ohio and Michigan coasts from Maumee Bay to Stony Point, northeast across the basin to touch the Ontario coast, and east past Pelee Island. Observed winds from the weekend (8/12-13) mixed the bloom, reducing concentrations previously visible at the surface where scums have been reported. Measured toxin concentrations are below recreational thresholds throughout most of the bloom extent, but may exceed thresholds in the western extent of the bloom where it is most dense (appearing green from a boat).

Forecast winds (4-10kn) today through Thursday (8/14-17) may support slight mixing of surface *Microcystis* concentrations. Winds forecast today through Thursday (8/14-17) may promote the easterly transport of *Microcystis* towards the Ontario coast.

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

-Lalime, Keeney

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

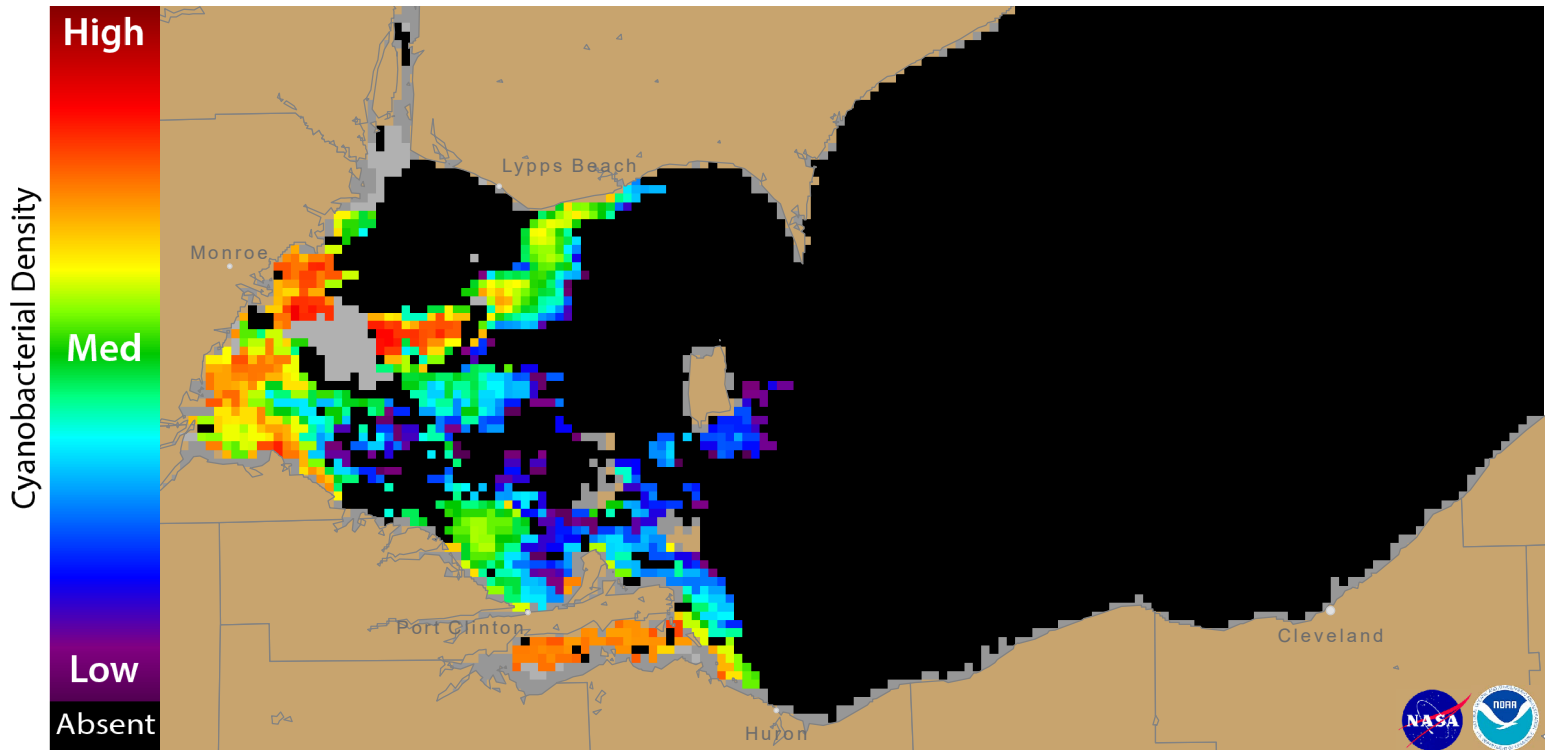


Figure 1. Cyanobacterial Index from NASA MODIS-Aqua & Terra data collected 13 August, 2017 at 13:01 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

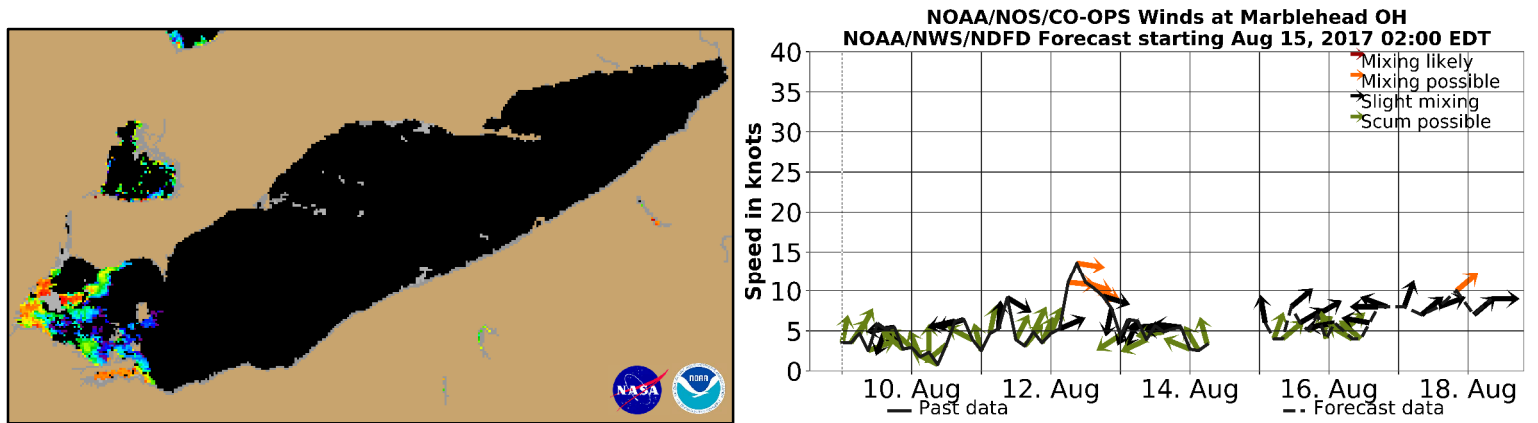


Figure 2. Cyanobacterial Index from NASA MODIS-Aqua & Terra data collected 13 August, 2017 at 13:01.

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).

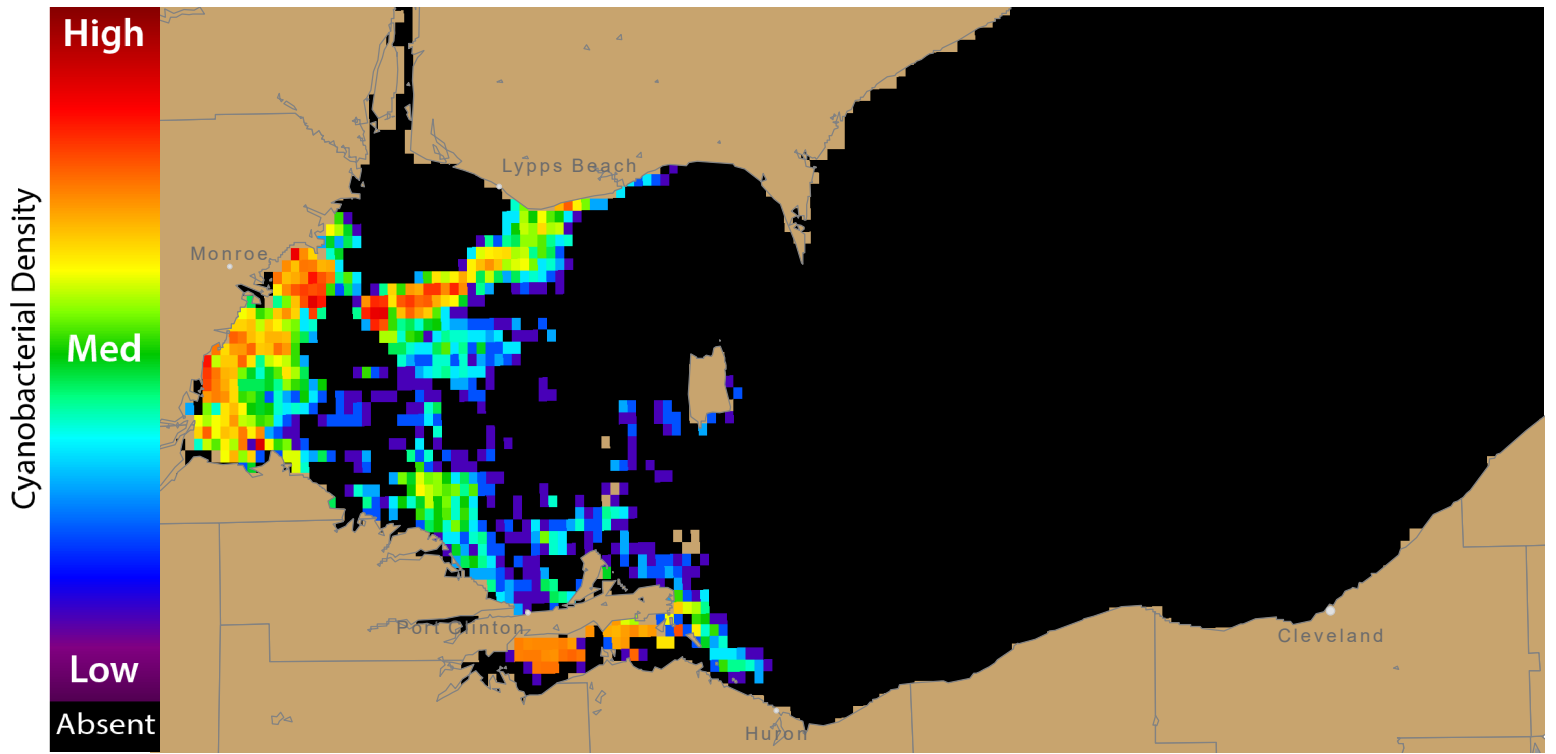


Figure 3. Nowcast position of bloom for 14 August, 2017 using GLFS modelled currents to move the bloom from the 13 August, 2017 image.

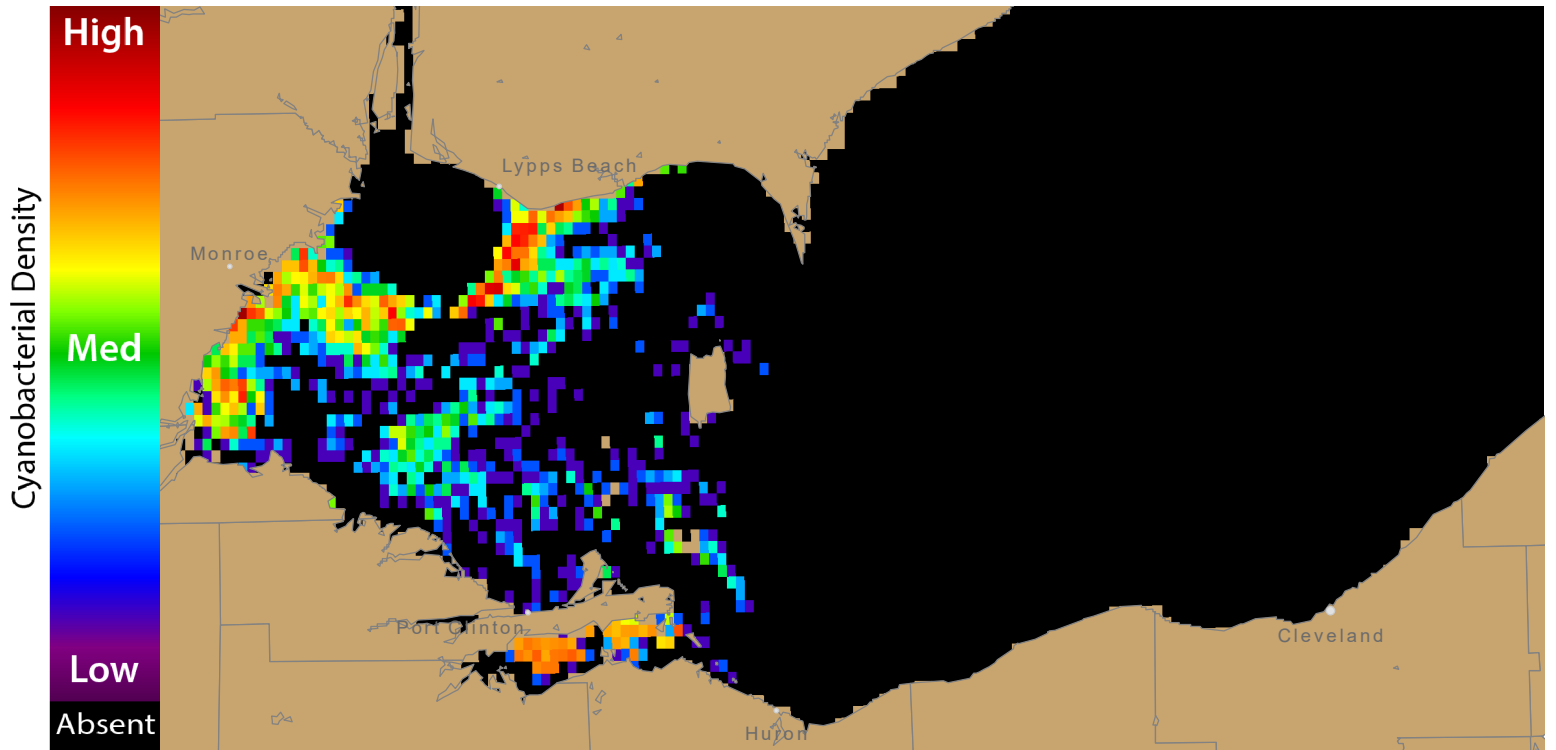
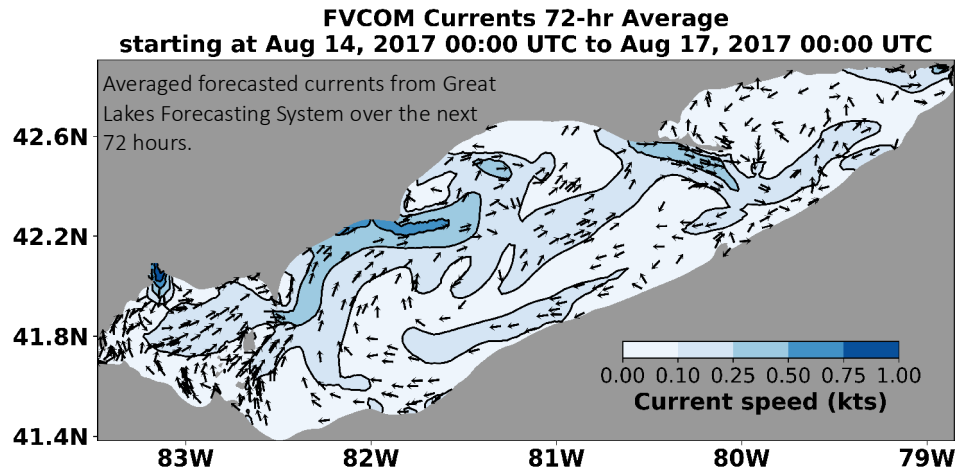


Figure 4. Forecast position of bloom for 17 August, 2017 using GLFS modelled currents to move the bloom from the 13 August, 2017 image.



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