



Lake Erie Harmful Algal Bloom Bulletin

17 August, 2017, Bulletin 11

The *Microcystis* cyanobacteria bloom continues in the western basin, extending along the Ohio and Michigan coasts and northeast to the Ontario coast. Observed winds this week (8/14-16) supported slight mixing of surface bloom concentrations. Scums were reported during sampling in Maumee Bay. Measured toxin concentrations are below recreational thresholds throughout most of the bloom extent, but exceed thresholds in the western basin where the bloom is most dense and scums are present (appearing green from a boat).

Forecast winds (5-18kn) today through Saturday (8/17-19) support the potential for mixing of surface *Microcystis* concentrations on Friday and Saturday. Winds forecast today through Sunday (8/17-20) may promote the northeasterly transport of *Microcystis* towards the Ontario coast. Cloud cover is likely on Friday.

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.

-Lalime, Keeney

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

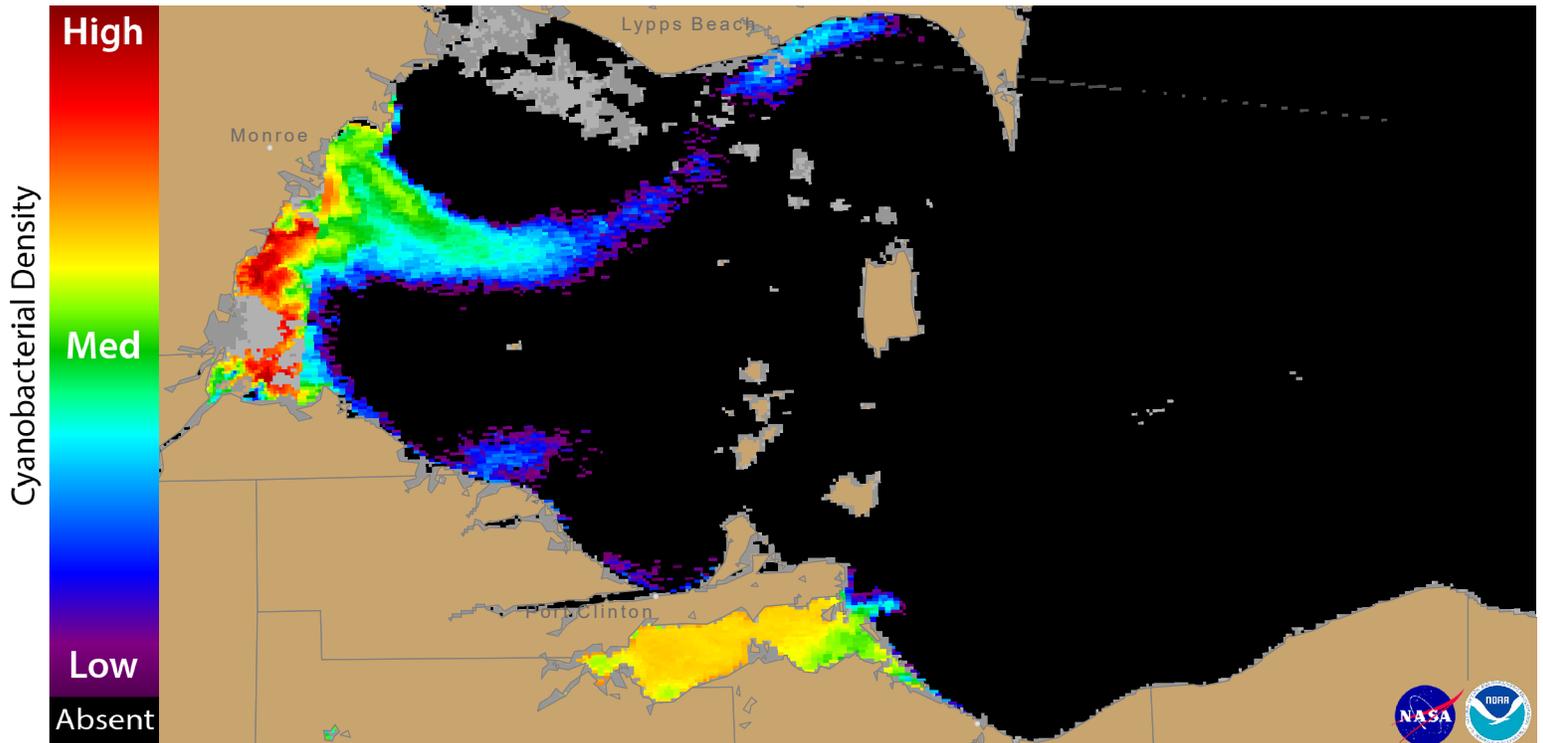


Figure 1. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 15 & 16 Aug, 2017 at 11:18 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

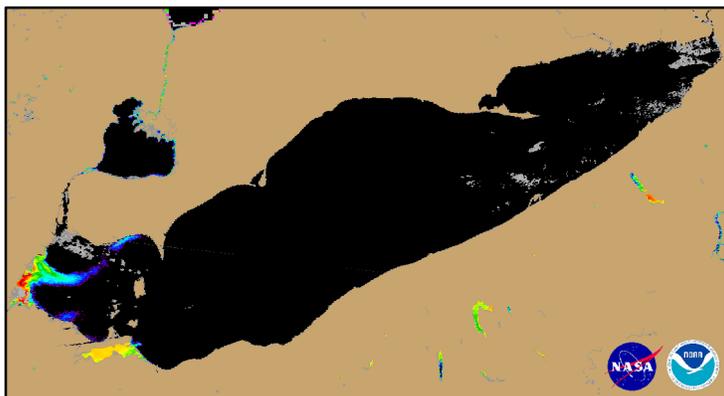
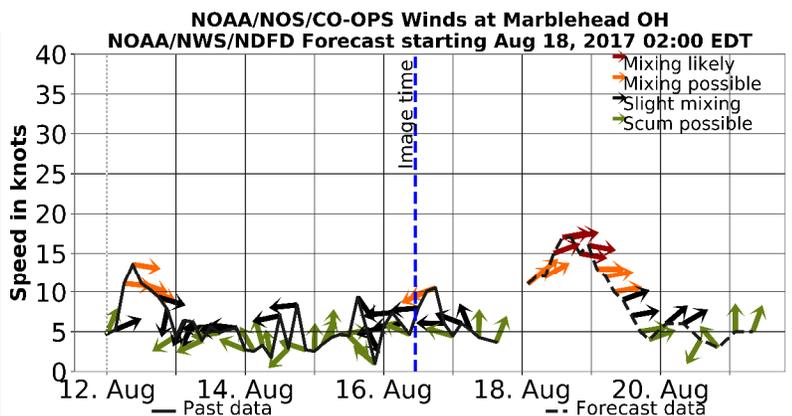


Figure 2. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 15 & 16 Aug, 2017 at 11:18.



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).

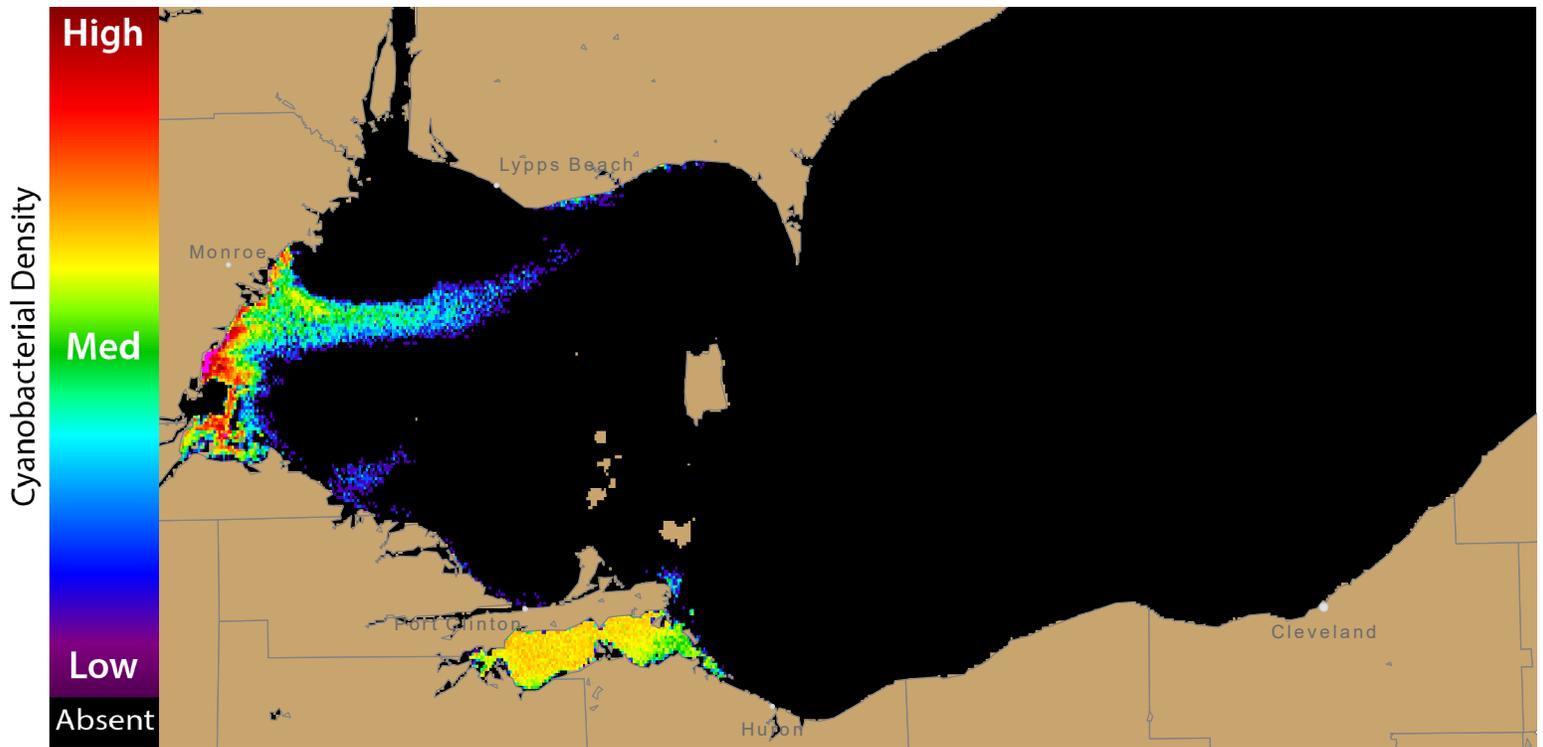


Figure 3. Nowcast position of bloom for 17 August, 2017 using GLFS modelled currents to move the bloom from the 15 & 16 Aug, 2017

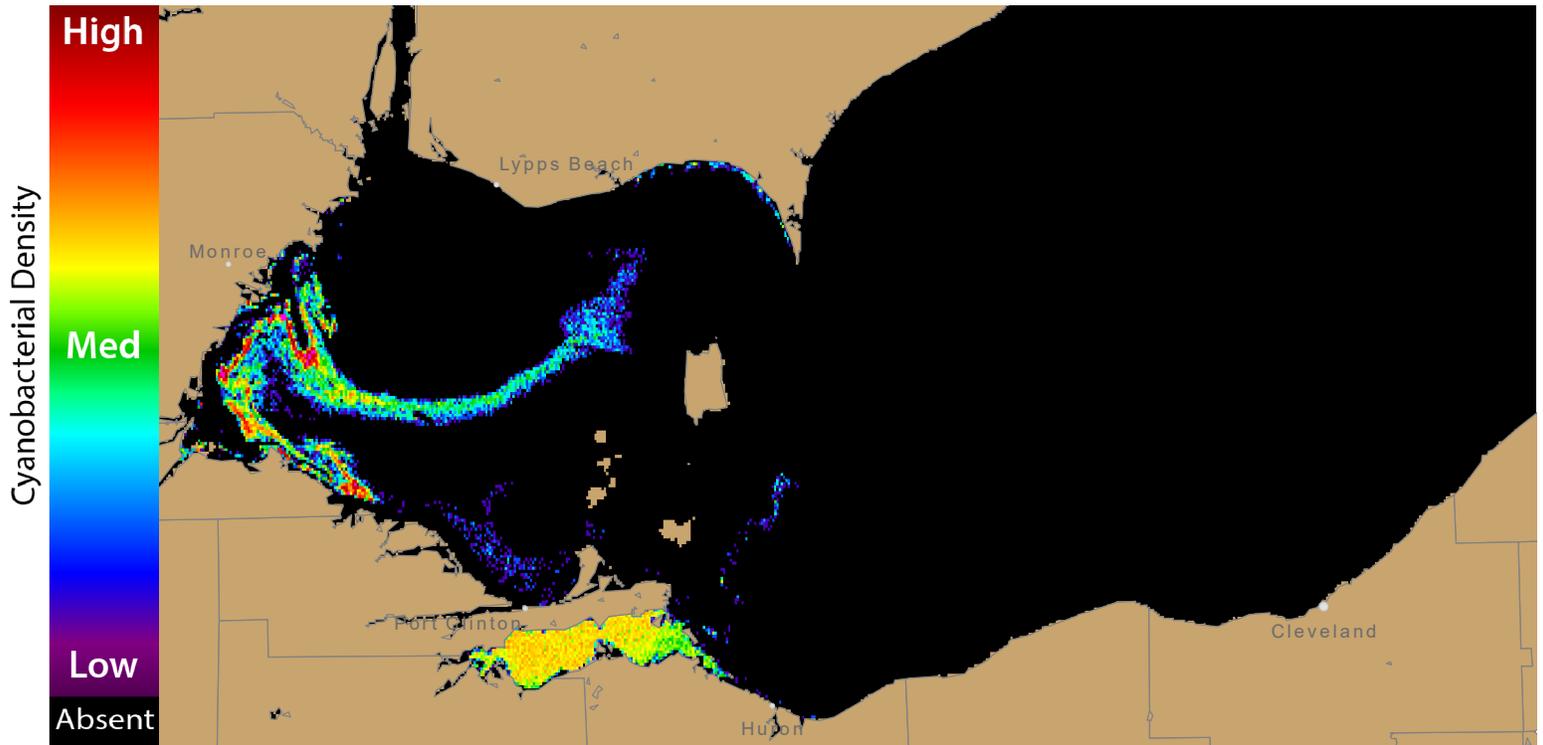
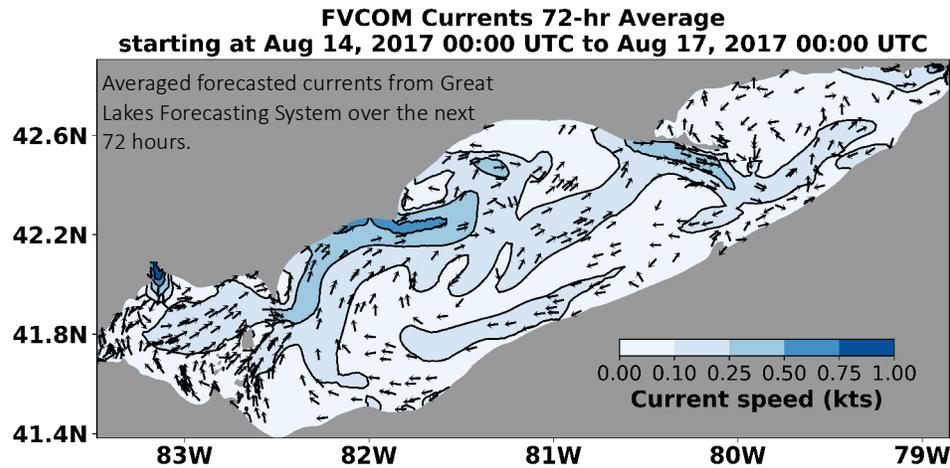


Figure 4. Forecast position of bloom for 20 August, 2017 using GLFS modelled currents to move the bloom from the 15 & 16 Aug, 2017



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