



Lake Erie Harmful Algal Bloom Bulletin

28 September, 2017, Bulletin 23

The *Microcystis* cyanobacteria bloom continues in the western basin along- and offshore the Michigan and Ohio coasts from Maumee Bay east through the islands, and northeast to the Ontario coast. Observed winds yesterday (9/27) may have caused mixing, reducing surface concentrations. Scums were visible within Maumee Bay extending northeast towards the Ontario coast. Measured toxin concentrations are below recreational thresholds throughout most of the bloom extent, but concentrations can exceed the threshold within Maumee Bay and in the western basin extending towards the Ontario coast where the bloom is most dense (appearing green from a boat).

Forecast winds (10-20kn) today through Monday (9/28-10/2) may cause mixing, reducing surface concentrations, and may promote southerly transport of *Microcystis* concentrations towards the Ohio 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. The persistent cyanobacteria bloom in Sandusky Bay continues. No other blooms are evident in the central basin and eastern basin. -Davis, Lalime

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

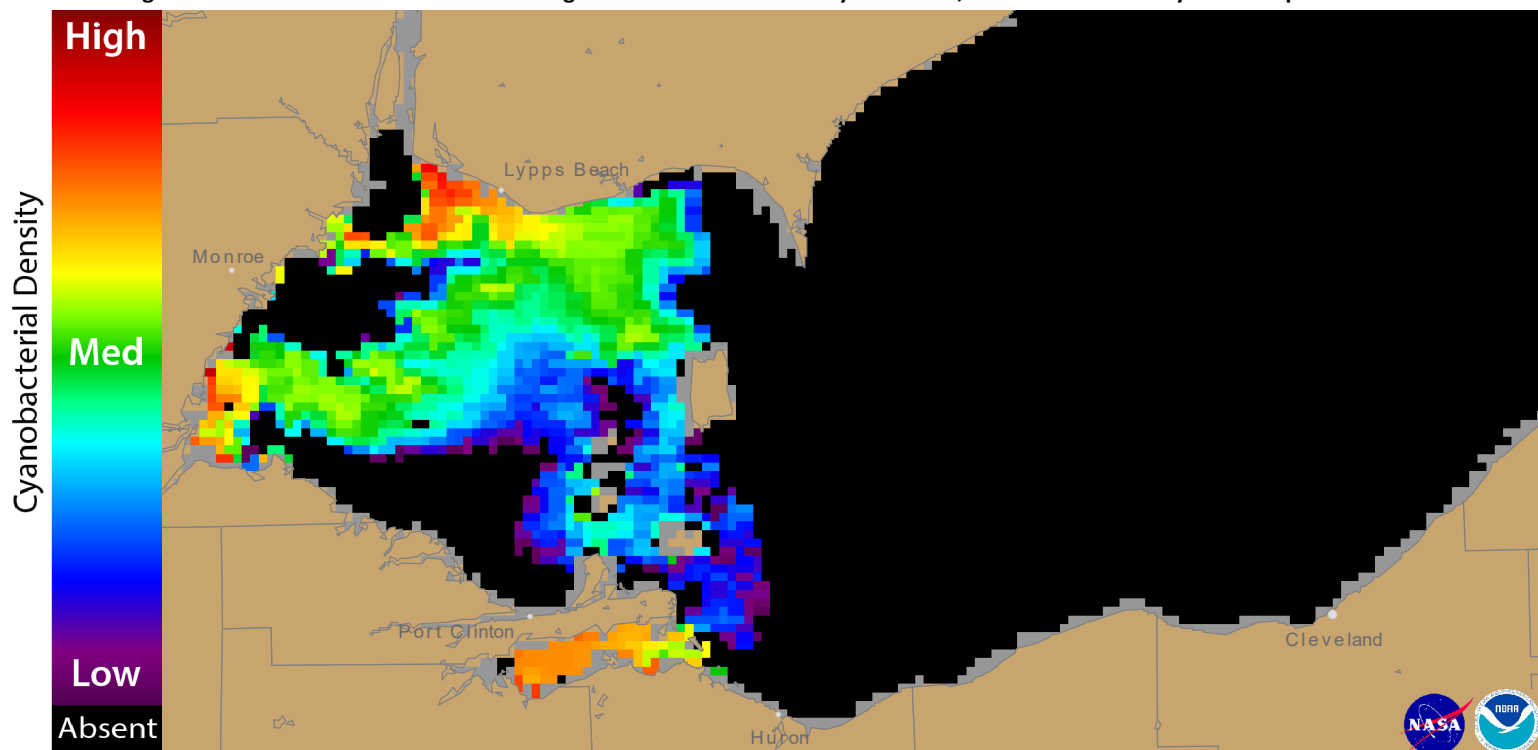


Figure 1. Cyanobacterial Index from NASA MODIS-Aqua data collected 26 September, 2017 at 13:25 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

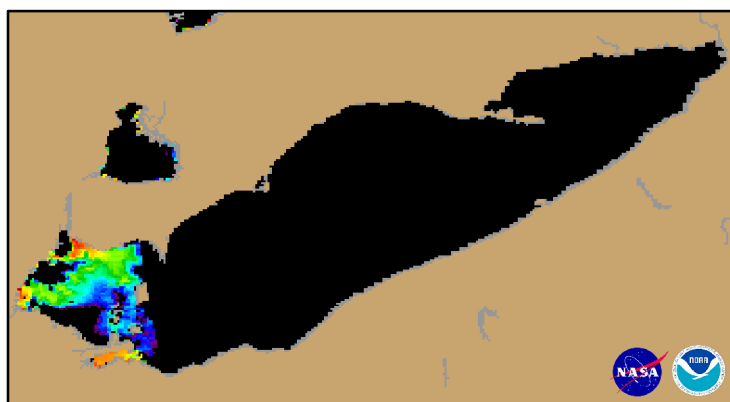
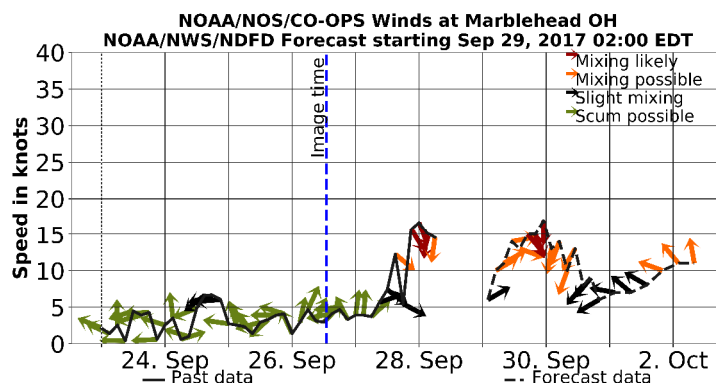


Figure 2. Cyanobacterial Index from NASA MODIS-Aqua data collected 26 September, 2017 at 13:25.



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).

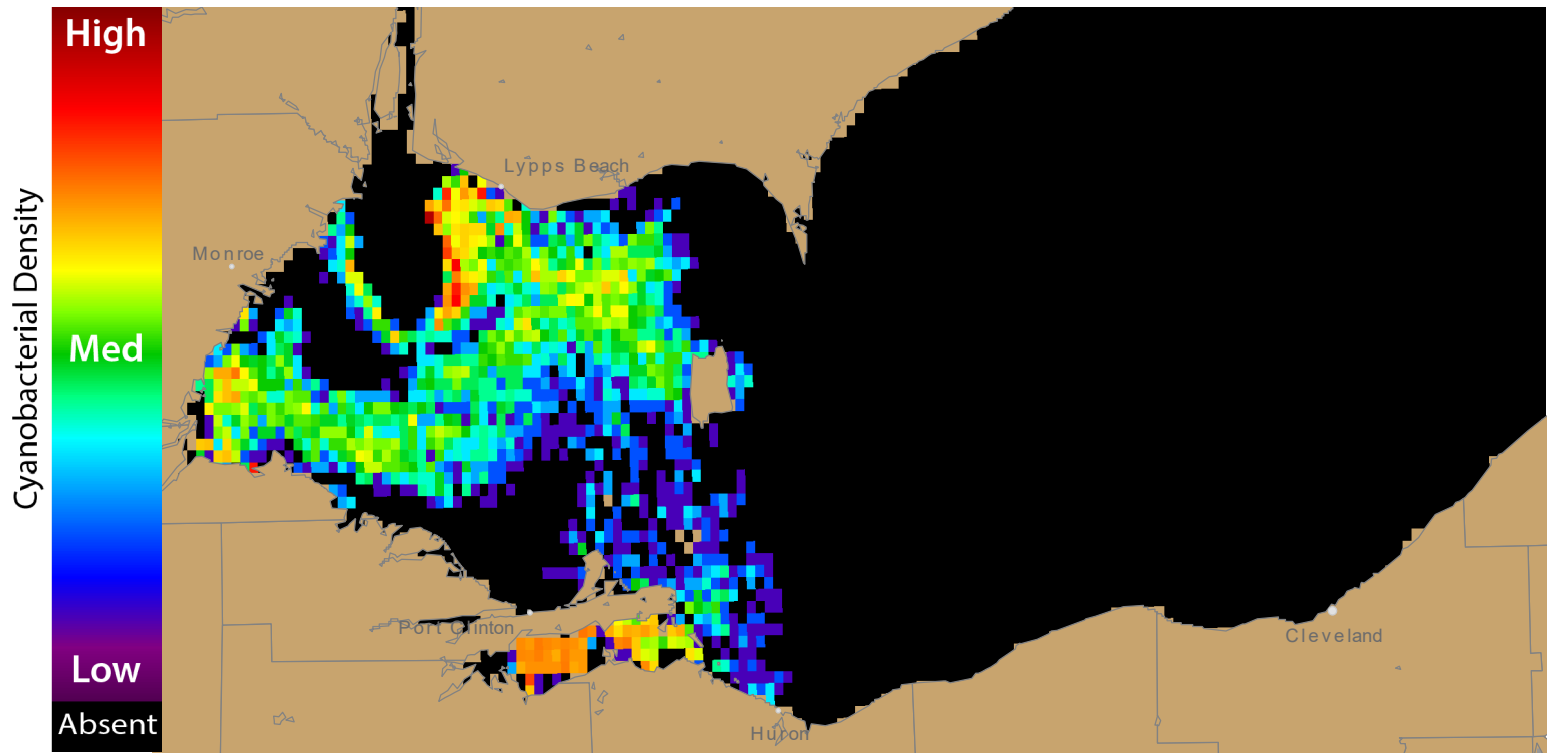


Figure 3. Nowcast position of bloom for 28 September, 2017 using GLFS modelled currents to move the bloom from the 26 September, 2017

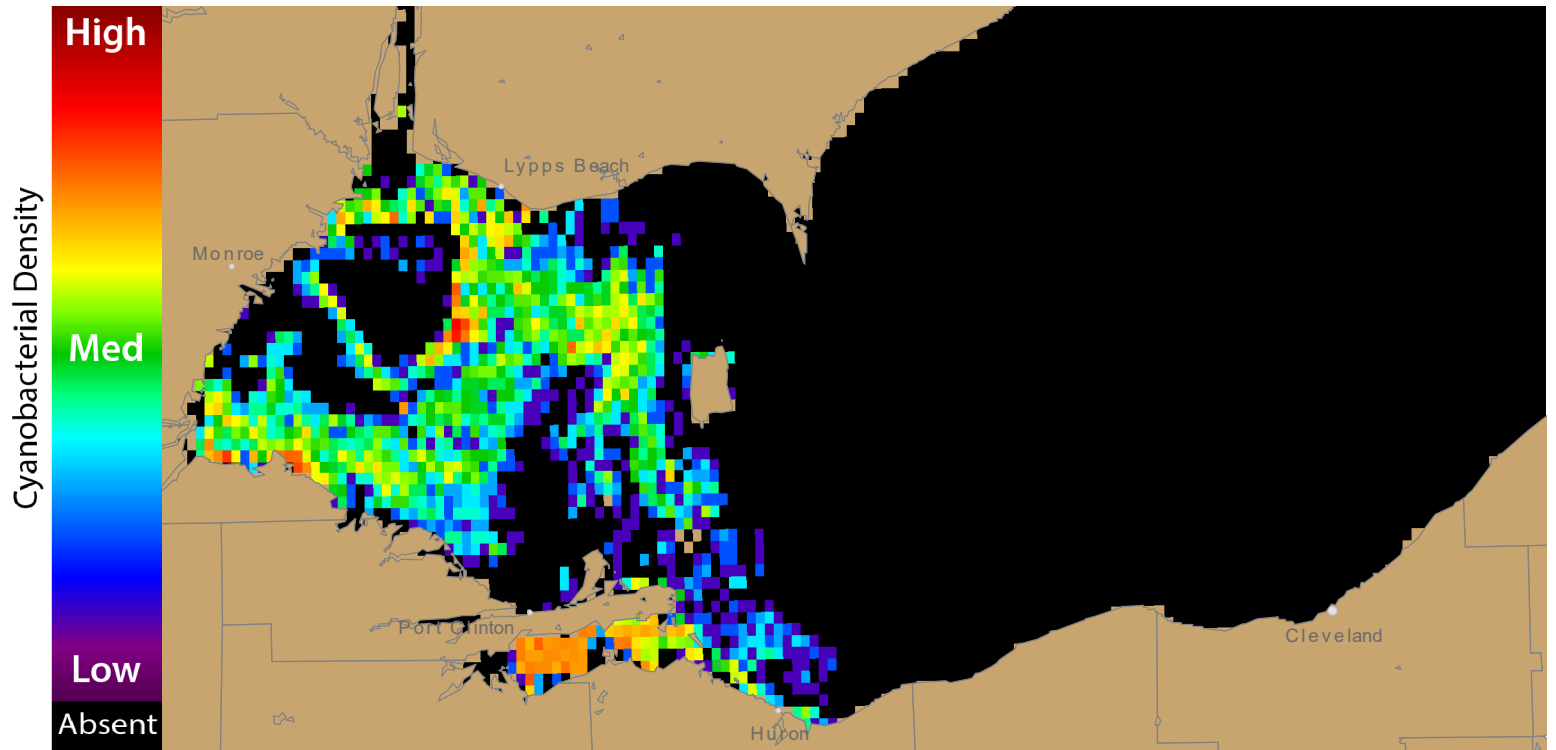
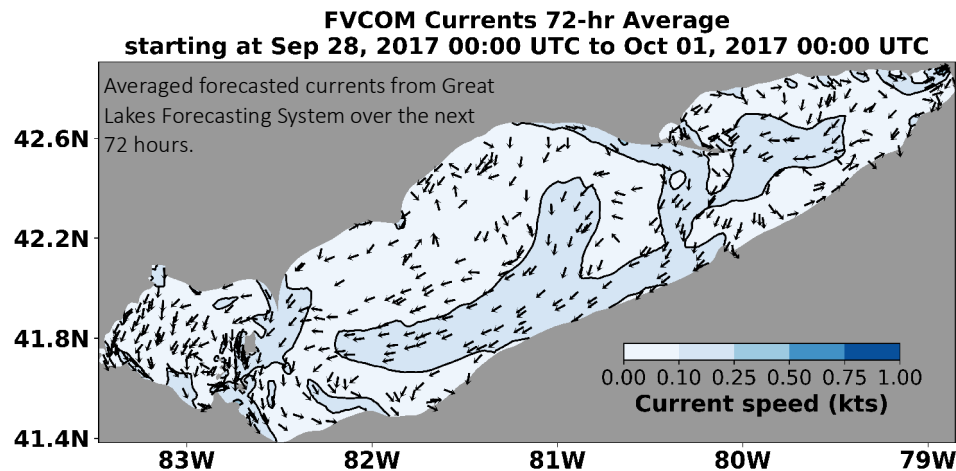


Figure 4. Forecast position of bloom for 01 October, 2017 using GLFS modelled currents to move the bloom from the 26 September, 2017



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