



# Lake Erie Harmful Algal Bloom Bulletin

02 October, 2017, Bulletin 24

The *Microcystis* cyanobacteria bloom continues in the western basin, extending alongshore the Michigan and Ohio coasts from Maumee Bay, past the islands to the Ontario coast. Observed winds Friday and Saturday (9/29-30) caused mixing, reducing surface concentrations previously visible from Maumee Bay northeast to Ontario. Measured toxin concentrations are below recreational thresholds throughout most of the bloom extent, but may exceed the threshold in the western extent of the bloom where it is most dense (appearing green from a boat), and corresponding with areas of dark red or orange in Figure 1.

Forecast winds (10-15kn) today through Friday (10/2-6) may cause mixing and northeasterly transport of remaining *Microcystis*. Water temperatures are approaching 68°F (20°C), limiting the growth of *Microcystis* concentrations in the western basin.

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 present. 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. No other blooms are evident in the central basin and eastern basin. -Lalime, Keeney

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

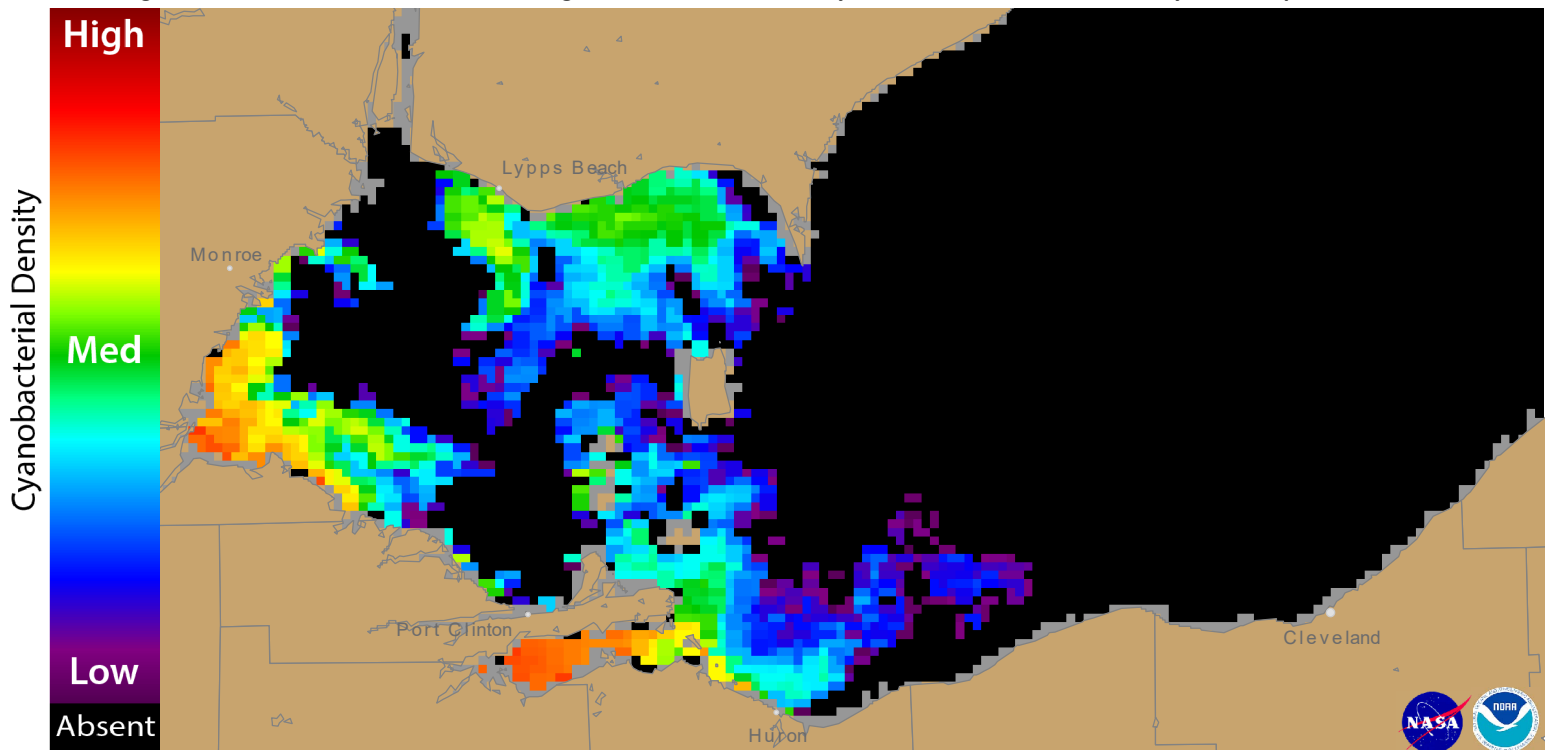


Figure 1. Cyanobacterial Index from NASA MODIS-Terra data collected 01 October, 2017 at 12:01 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

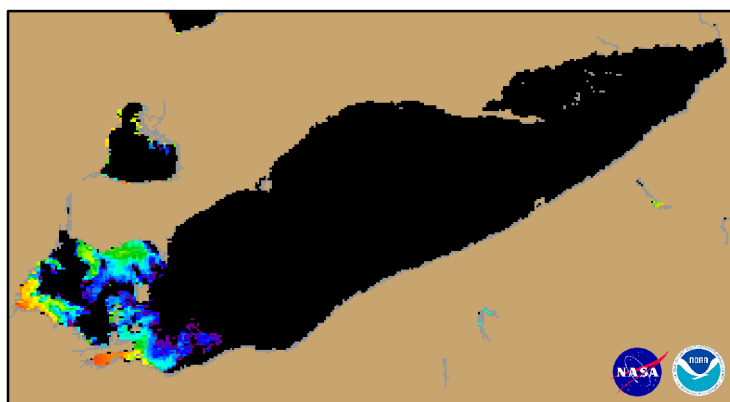
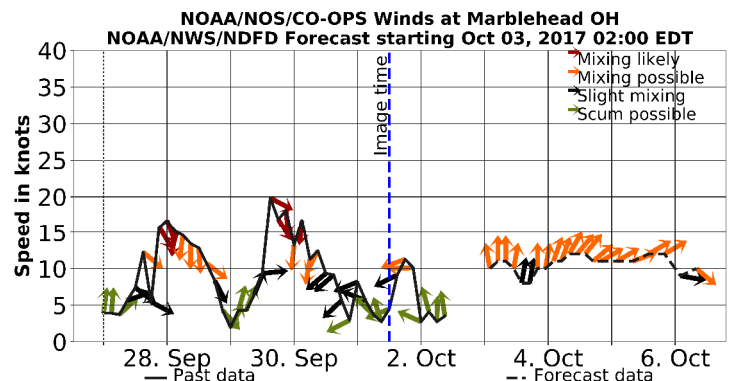


Figure 2. Cyanobacterial Index from NASA MODIS-Terra data collected 01 October, 2017 at 12:01.



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).

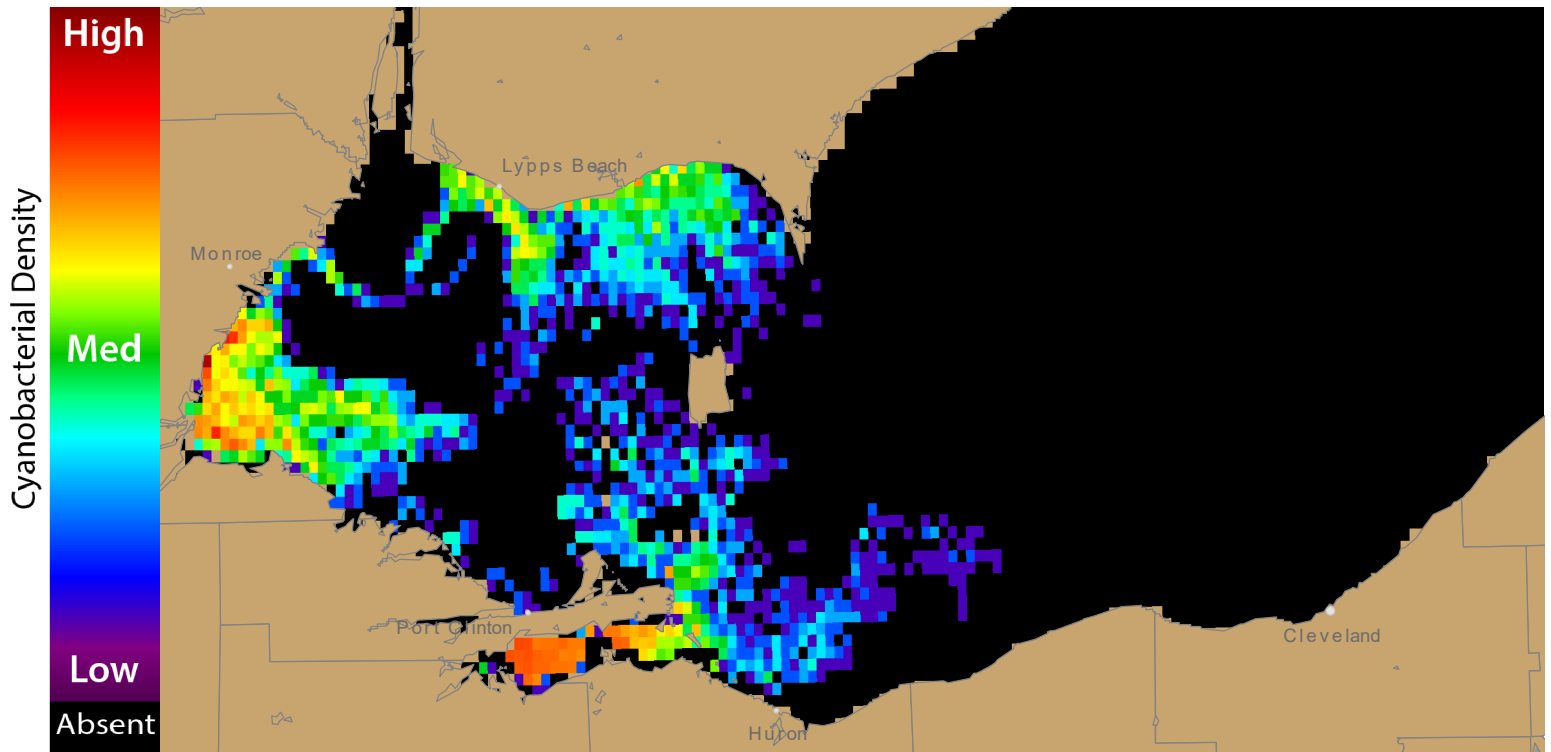


Figure 3. Nowcast position of bloom for 02 October, 2017 using GLFS modelled currents to move the bloom from the 01 October, 2017

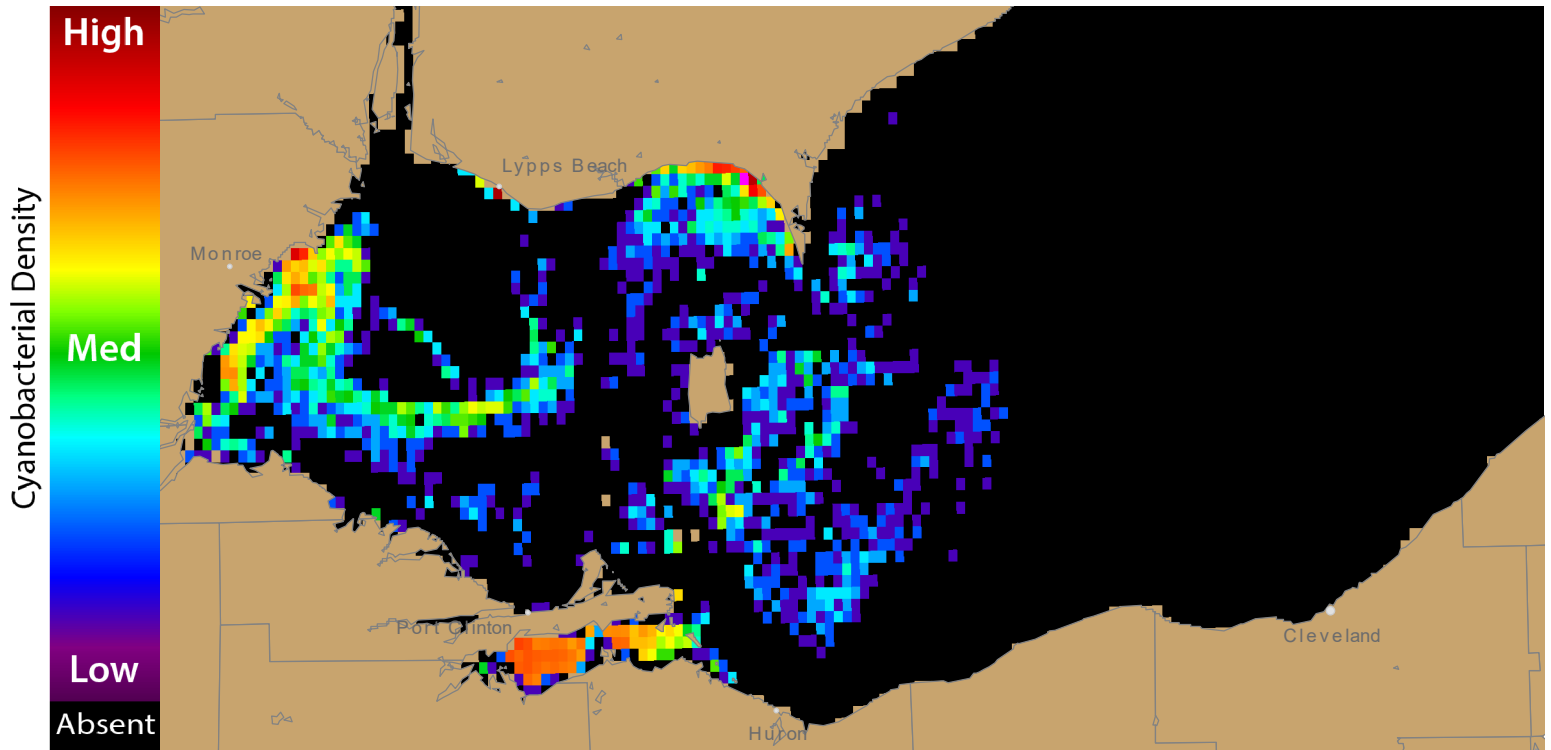
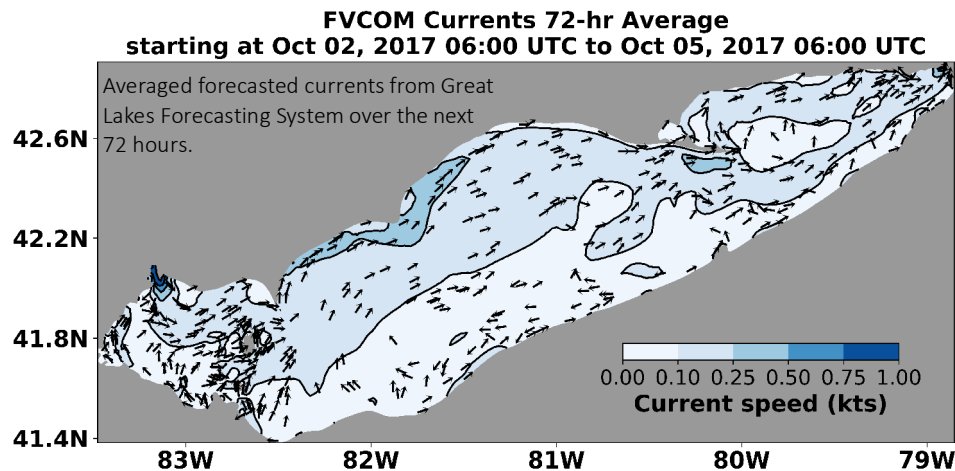


Figure 4. Forecast position of bloom for 05 October, 2017 using GLFS modelled currents to move the bloom from the 01 October, 2017



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