



# Lake Erie Harmful Algal Bloom Bulletin

23 October, 2017, Bulletin 30

The *Microcystis* cyanobacteria bloom continues in localized patches in the western basin from along the Michigan coast to offshore south of Point Pelee. Winds observed yesterday (10/22) may have caused mixing that could have reduced surface concentrations from earlier. Measured toxin concentrations are below recreational thresholds throughout the bloom extent.

Forecast winds (10-30kn) today through Thursday (10/23-26) will likely promote mixing and easterly transport of remaining *Microcystis*. Water temperatures are below 68°F (20°C), limiting the growth of *Microcystis* concentrations, and are forecasted to decline below 59°F (15°C) in the western basin which should substantially decrease bloom concentrations through Thursday.

Please check Ohio EPA's site on harmful algal blooms for safety information: <http://epa.ohio.gov/habalgae.aspx>. 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 or eastern basins.

—Kavanaugh, Urizar

The images below are "GeoPDF". Please visit <https://go.usa.gov/xReTC> for instructions on viewing longitude and latitude.

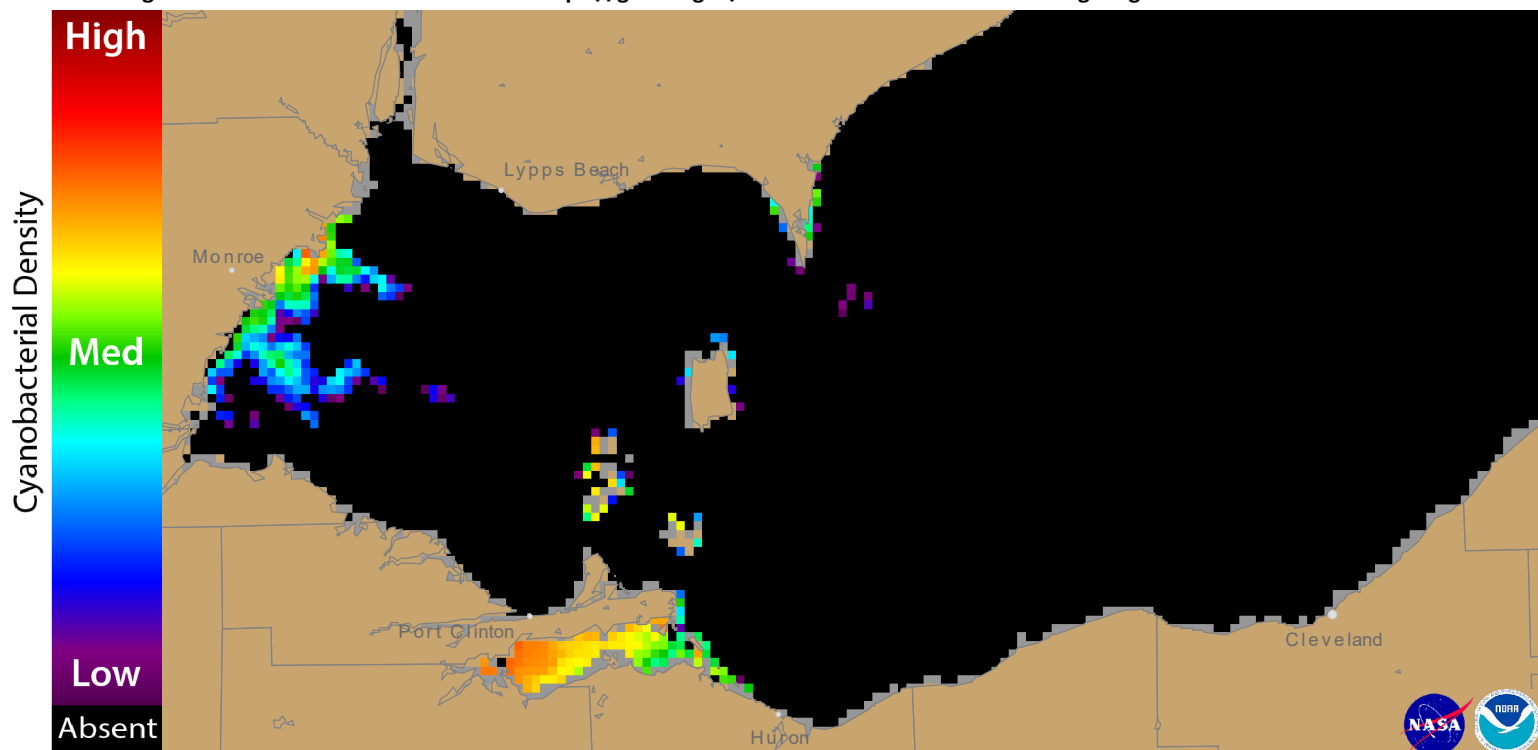
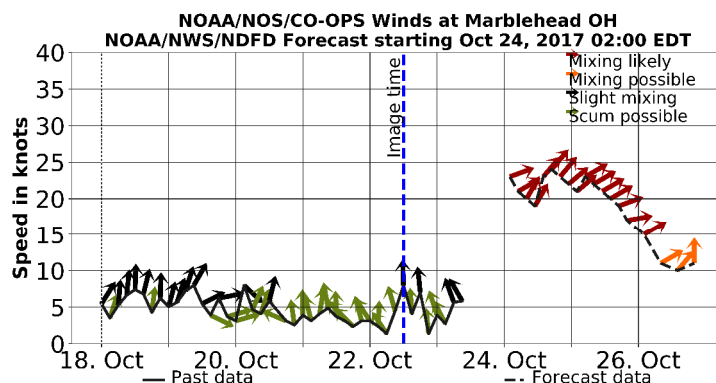


Figure 1. Cyanobacterial Index from NASA MODIS-Terra data collected 22 October, 2017 at 12:19 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.



Figure 2. Cyanobacterial Index from NASA MODIS-Terra data collected 22 October, 2017 at 12:19.



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).

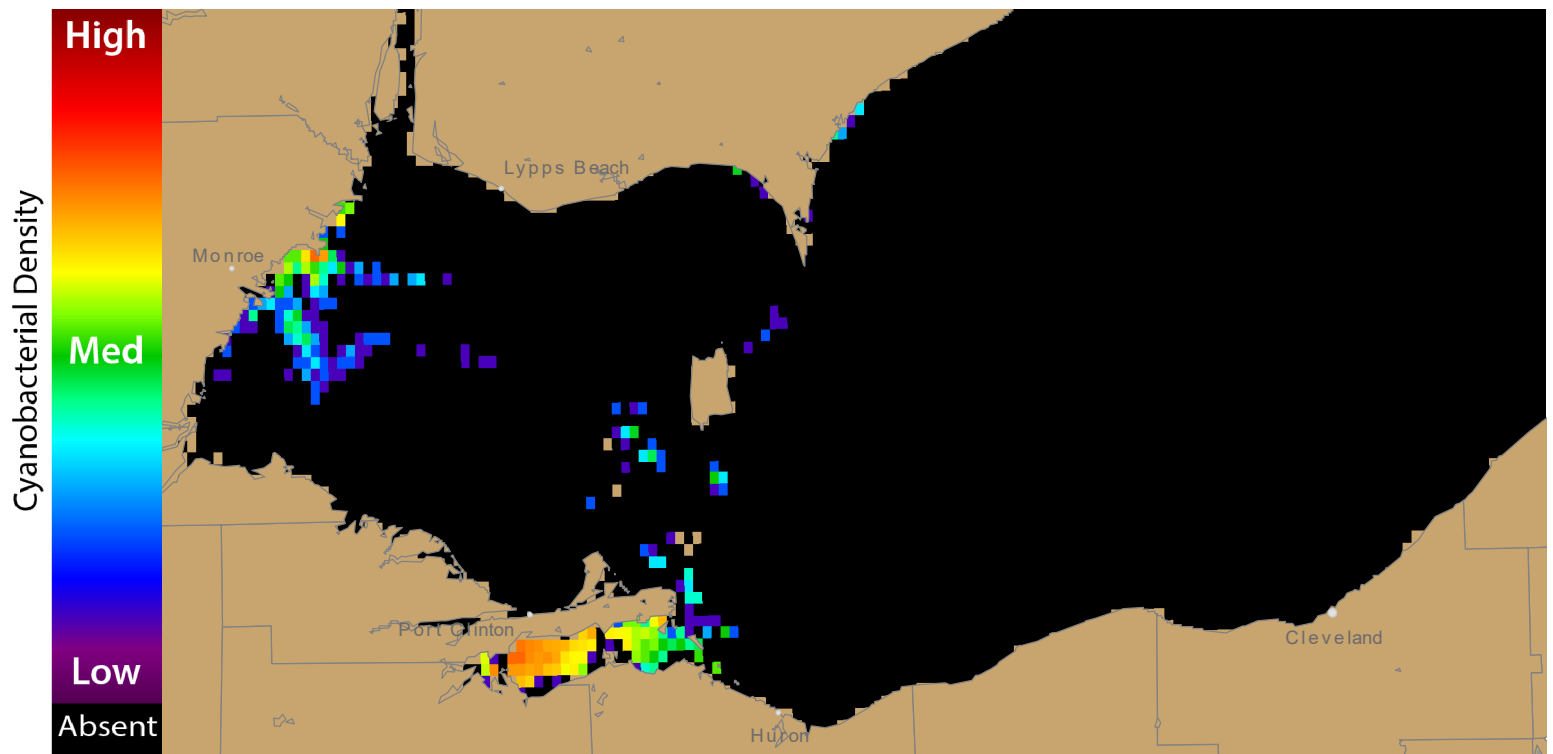


Figure 3. Nowcast position of bloom for 23 October, 2017 using GLFS modelled currents to move the bloom from the 22 October, 2017

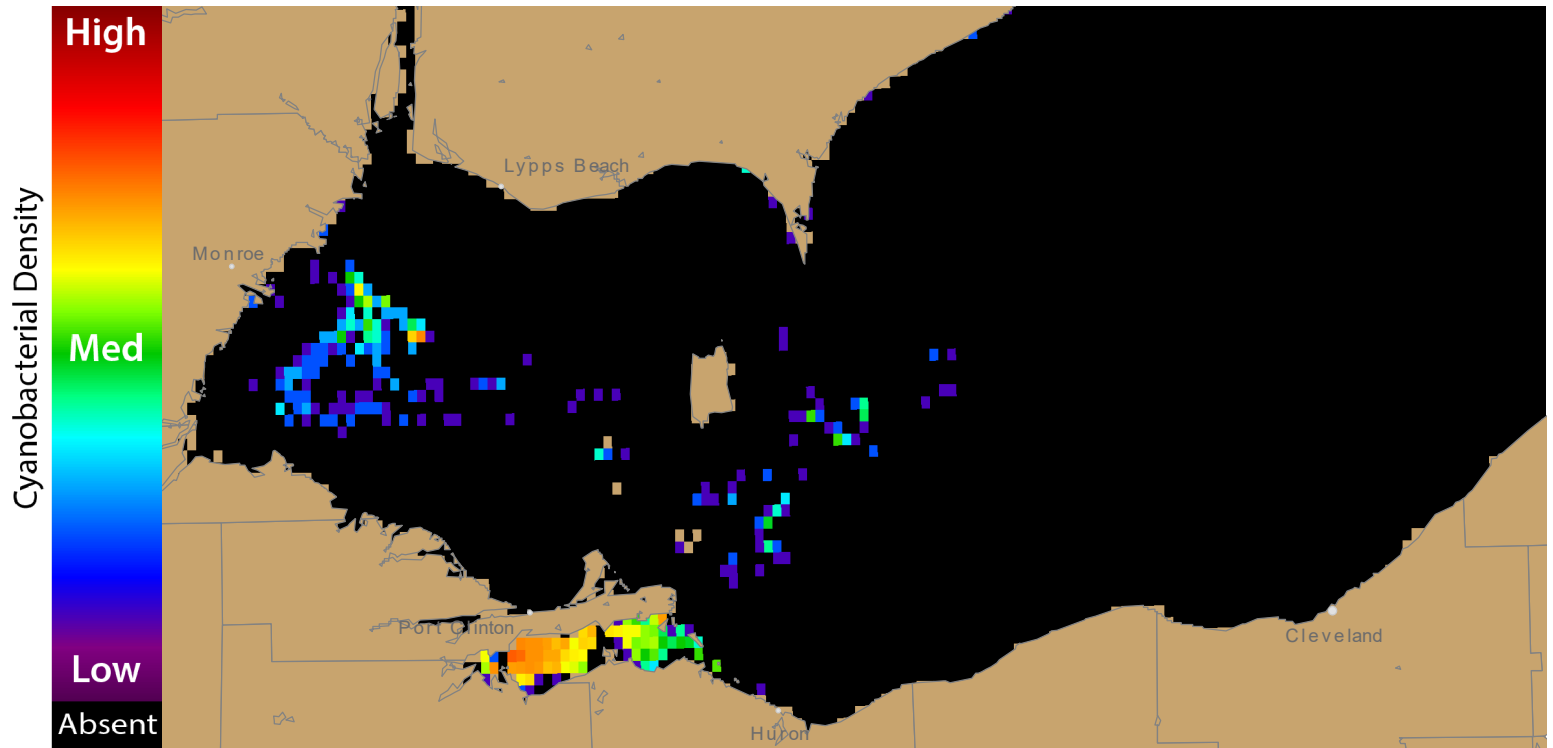
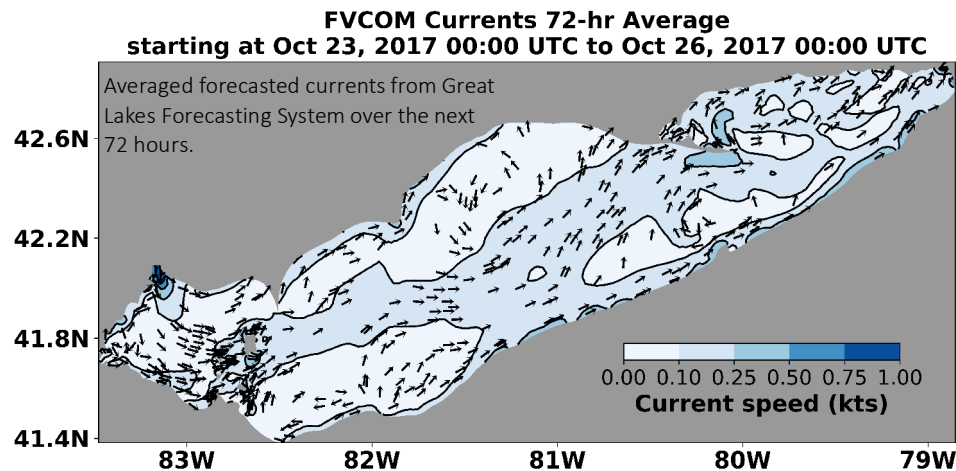


Figure 4. Forecast position of bloom for 26 October, 2017 using GLFS modelled currents to move the bloom from the 22 October, 2017



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