Lake Erie Harmful Algal Bloom Bulletin

05 October, 2017, Bulletin 25

Due to the upcoming federal holiday, the next bulletin will be issued on Tuesday, October 10.
The *Microcystis* cyanobacteria bloom continues across the western basin, extending from Maumee Bay to the Ontario coast. Observed winds since Monday (10/2-10/4) promoted increased surface concentrations, with scums being reported in Maumee Bay. Measured toxin concentrations are below recreational thresholds throughout 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).

Forecast winds (10-22kn) Saturday and Sunday (10/7-8) may cause mixing and easterly transport of remaining *Microcystis* concentrations. Clouds will likely obscure the lake through Sunday (10/8). 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. NOAA's GLERL provides additional HAB data: https://www.glerl.noaa.gov/res/HABs_and_Hypoxia. Keep your pets and yourself out of the water in areas where scum is present. The persistent cyanobacteria bloom in Sandusky Bay continues, but 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".

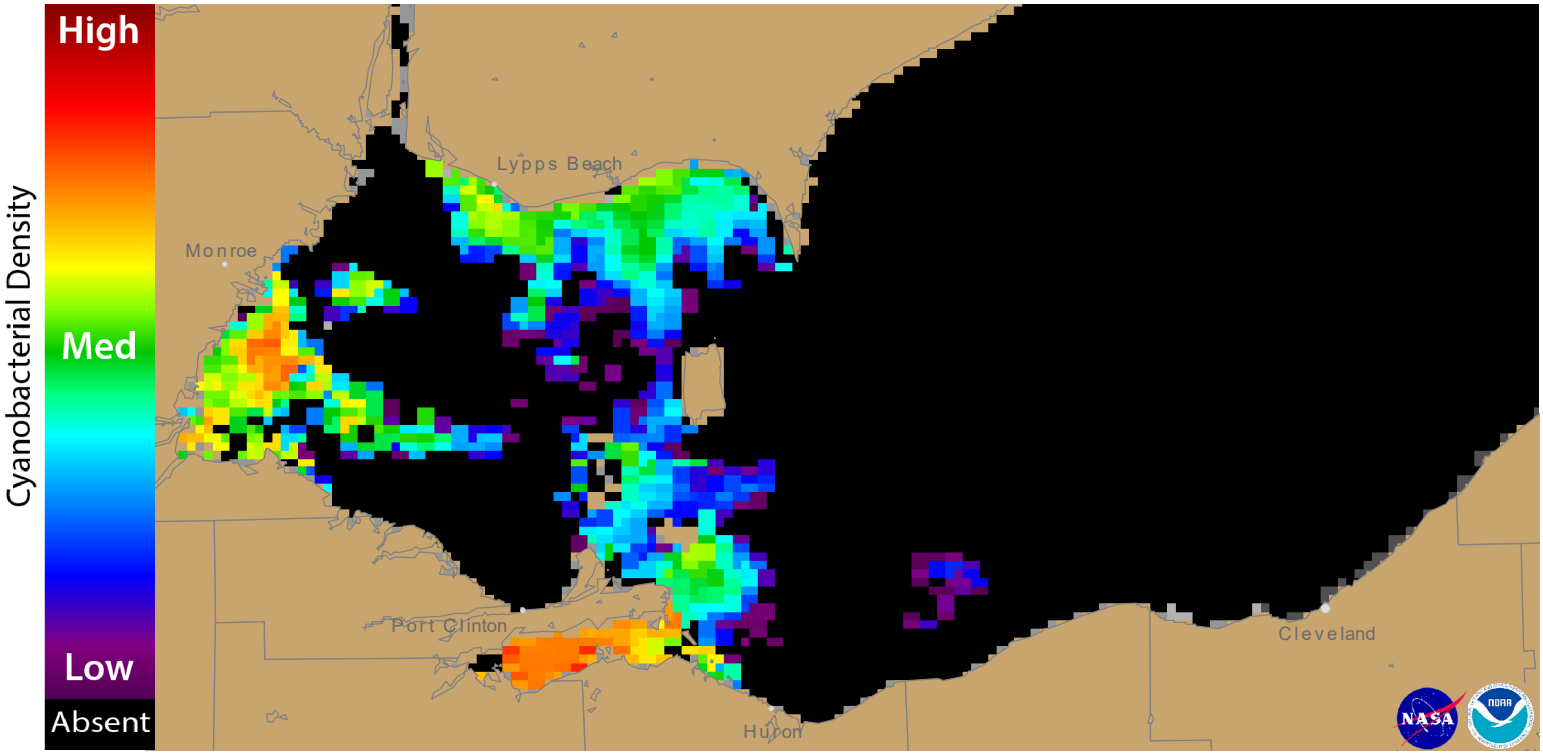


Figure 1. Cyanobacterial Index from NASA MODIS-Aqua & Sentinel-3a data collected 03 October, 2017 at 13:31 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

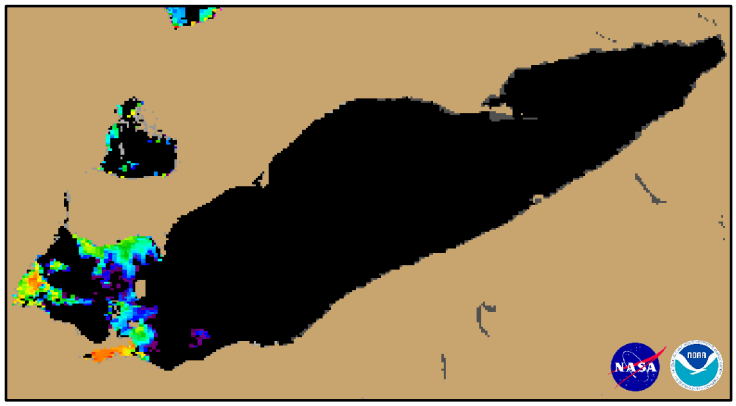
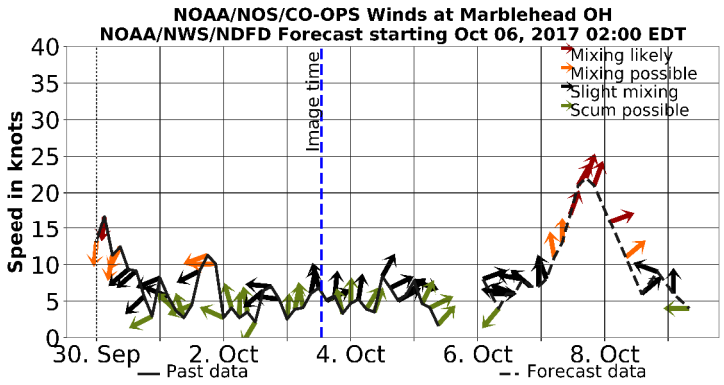


Figure 2. Cyanobacterial Index from NASA MODIS-Aqua & Sentinel-3a data collected 03 October, 2017 at 13:31.



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).

For more information and to subscribe to this bulletin, go to: https://tidesandcurrents.noaa.gov/hab/lakeerie.html

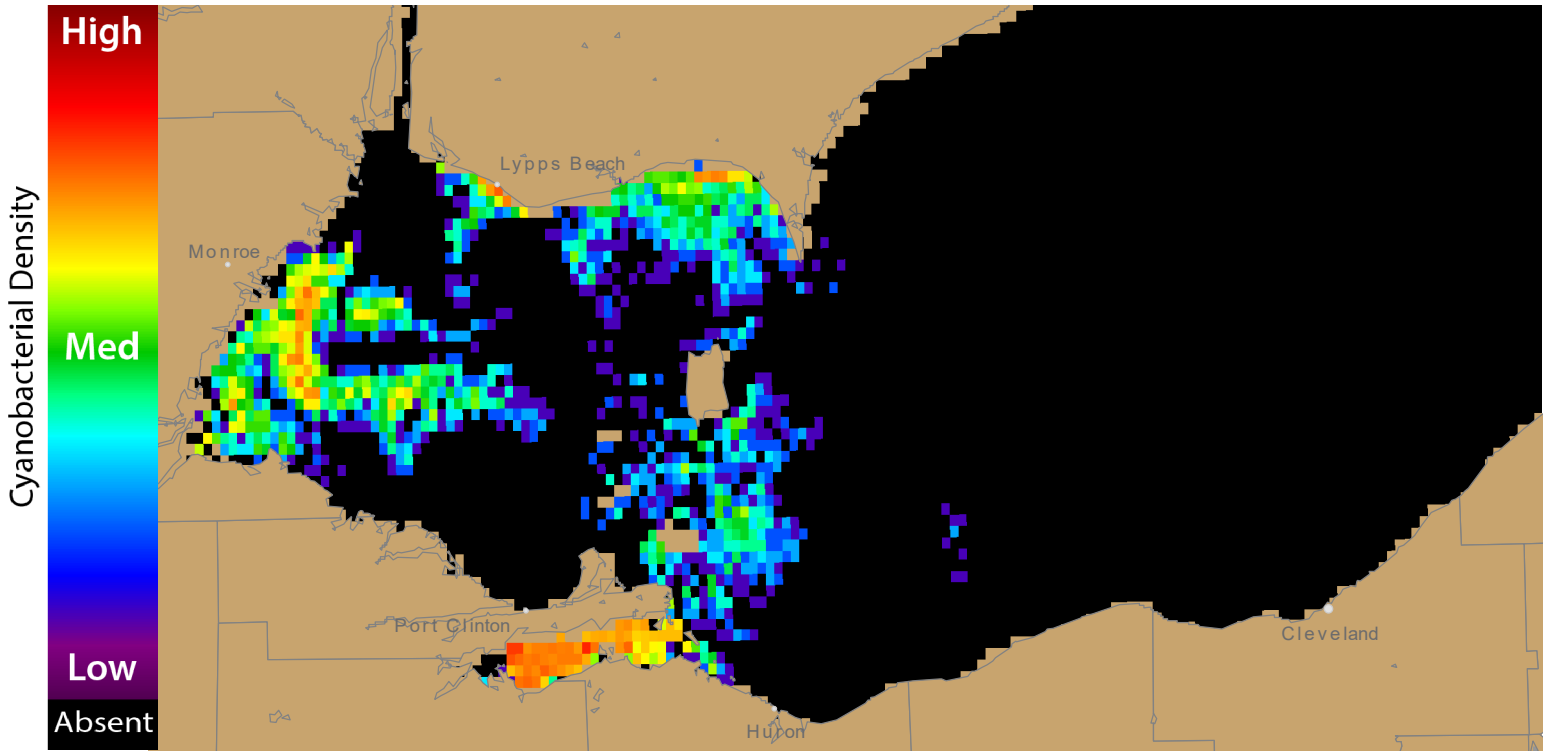


Figure 3. Nowcast position of bloom for 05 October, 2017 using GLFS modelled currents to move the bloom from the 03 October, 2017

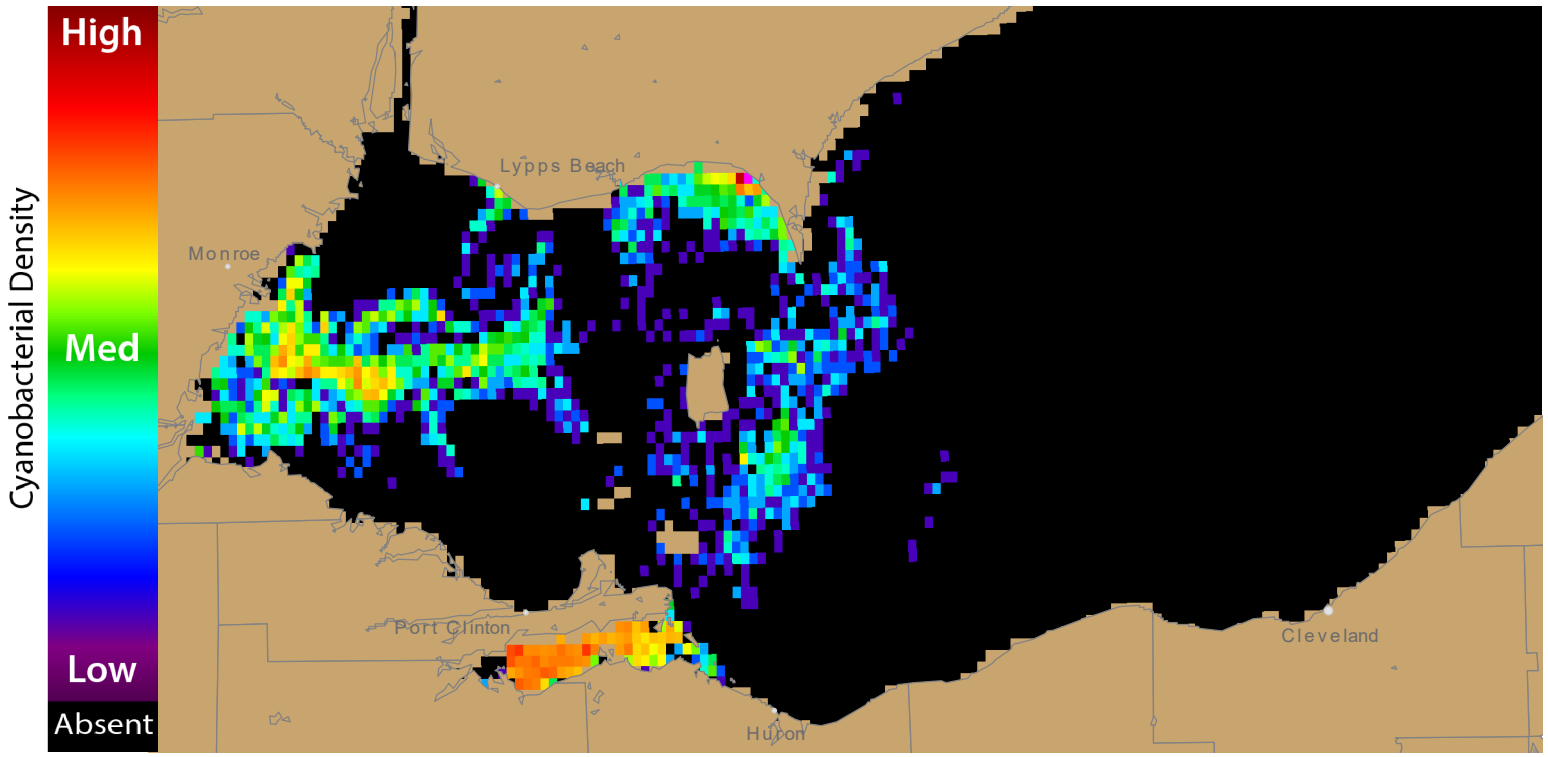
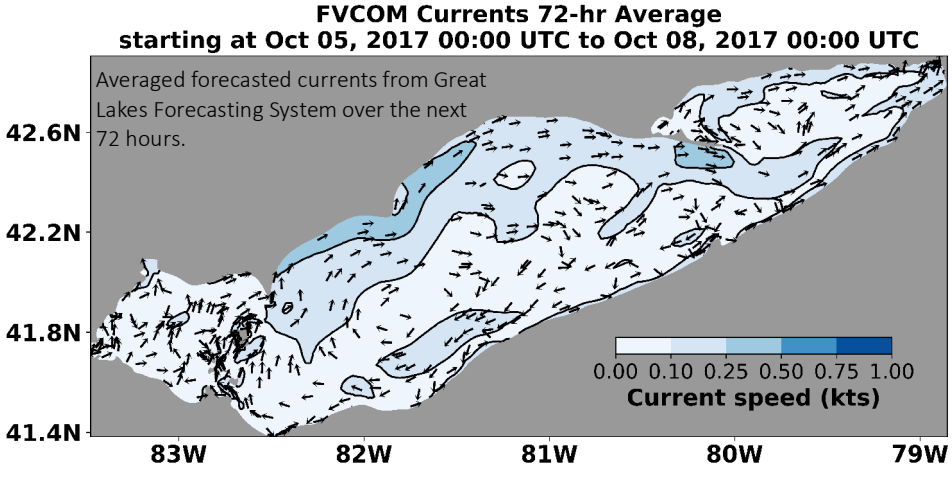


Figure 4. Forecast position of bloom for 08 October, 2017 using GLFS modelled currents to move the bloom from the 03 October, 2017



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