



Lake Erie Harmful Algal Bloom Bulletin

05 September, 2017, Bulletin 16

The *Microcystis* cyanobacteria bloom continues in the western basin, extending north along the Michigan coast and east along the Ohio coast toward the islands. Observed winds over the weekend (9/1-9/3) caused mixing that reduced surface concentrations previously visible along the Michigan coast. Scum was not visible in recent Sentinel imagery. Measured toxin concentrations exceed the public health recreation threshold along the western extent of the bloom, where it is most dense (which would look green from a boat).

Forecast winds (5-12kn) today through Saturday (9/5-9/9) may promote mixing, reducing surface concentrations of *Microcystis*. Winds may promote the southeasterly transport of *Microcystis* today through Sunday (9/5-9/10) towards the Marblehead Peninsula.

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.

-Davis, Urizar

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

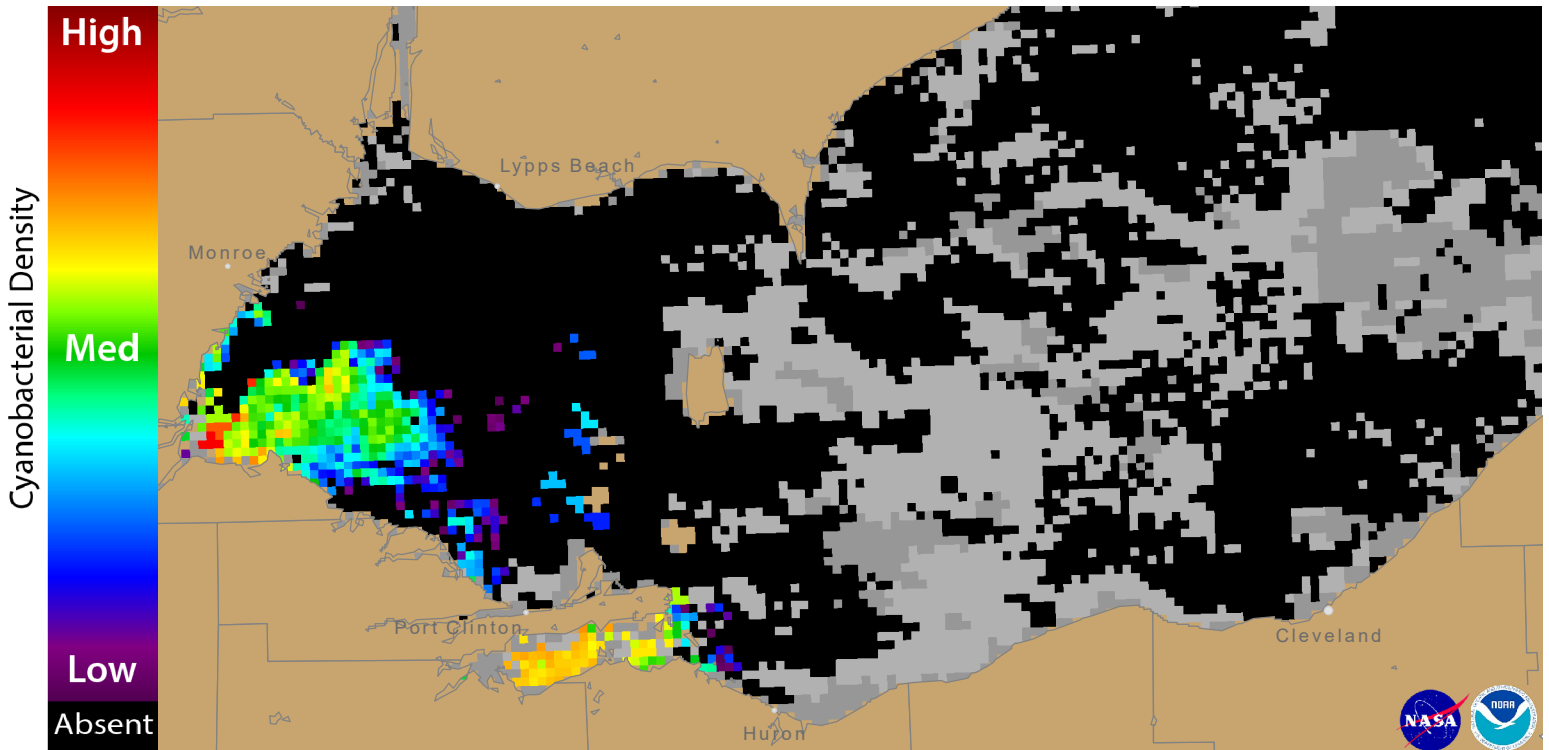


Figure 1. Cyanobacterial Index from NASA MODIS-Sentinel-3a & Terra data collected 03 September, 2017 at 11:51 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

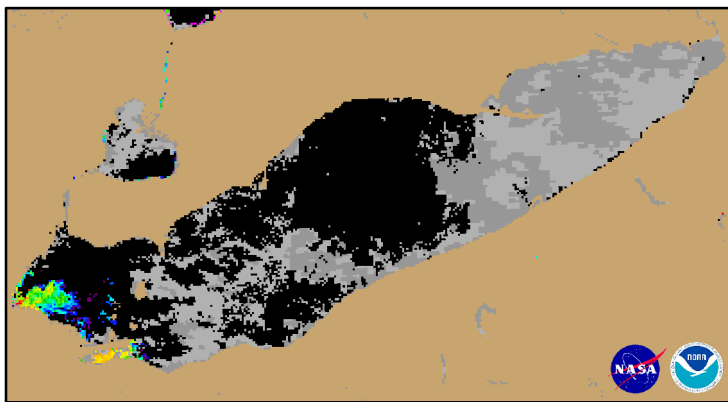
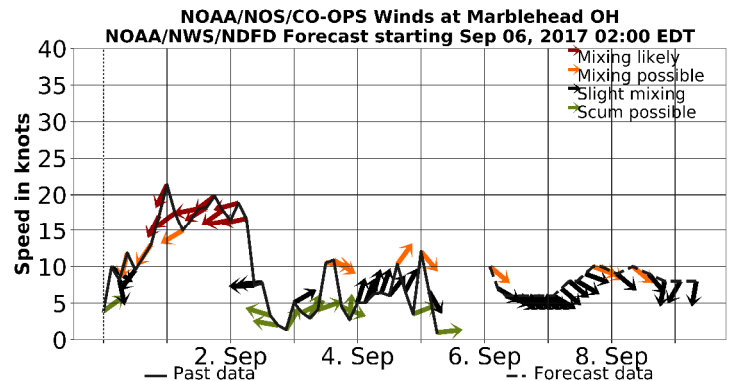


Figure 2. Cyanobacterial Index from NASA MODIS-Sentinel-3a & Terra data collected 03 September, 2017 at 11:51.



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).

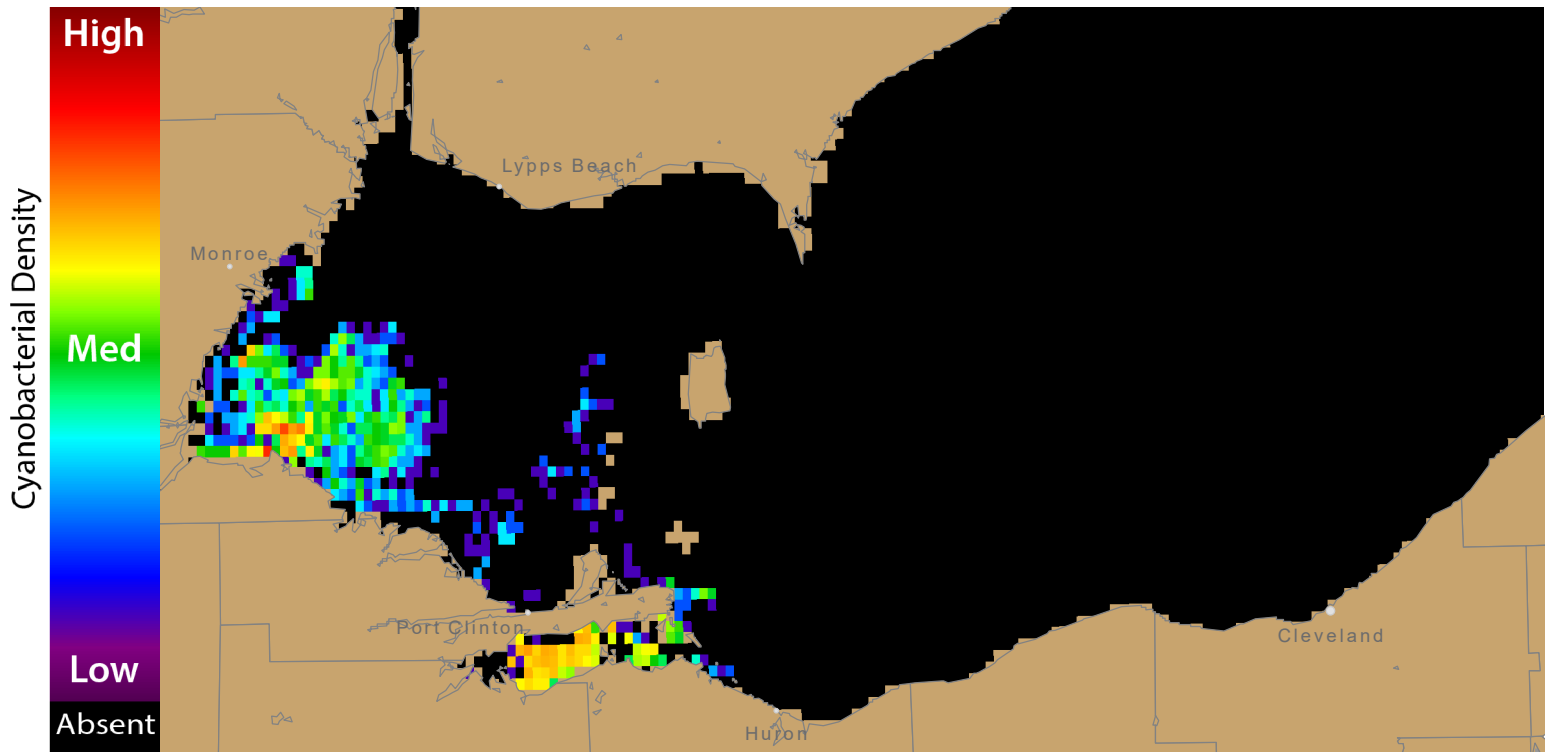


Figure 3. Nowcast position of bloom for 05 September, 2017 using GLFS modelled currents to move the bloom from the 03 September, 2017

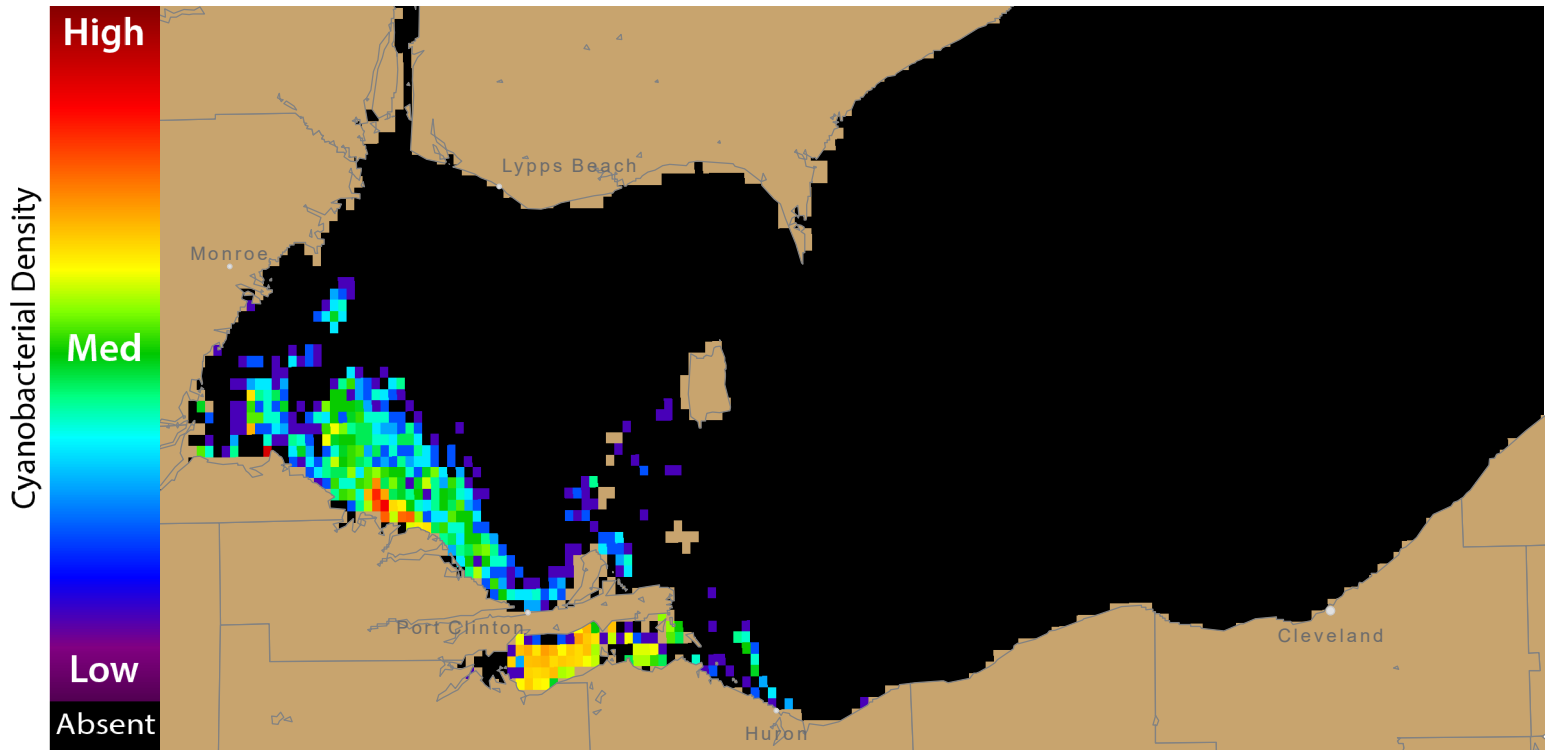
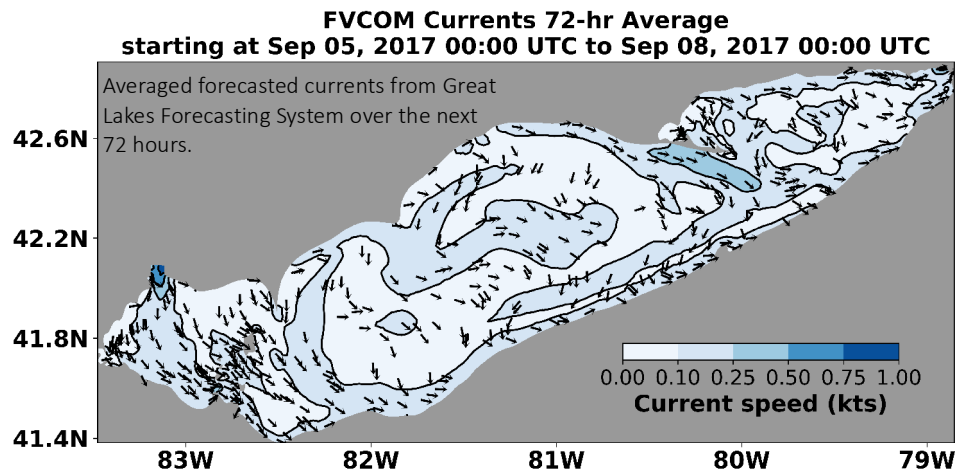


Figure 4. Forecast position of bloom for 08 September, 2017 using GLFS modelled currents to move the bloom from the 03 September, 2017



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