



Lake Erie Harmful Algal Bloom Bulletin

07 September, 2017, Bulletin 17

The *Microcystis* cyanobacteria bloom continues in the western basin, but has decreased in toxicity. Observed winds (2-6kn) yesterday (9/6) promoted an increase in surface bloom concentrations. Scum was not visible in Sentinel imagery from yesterday. Measured toxin concentrations are below recreational thresholds throughout most of the bloom extent, but the concentrations can exceed the threshold in the western extent of the bloom where it is most dense (which would look green from a boat).

Forecast winds (8-13kn) today through Monday (9/7-9/11) may promote mixing, reducing surface concentrations of *Microcystis*. Water temperatures are approaching 68 ° F (20° C) in the western basin, limiting the growth of *Microcystis* concentrations. Winds may promote the southeasterly transport of *Microcystis* today through Sunday (9/7-9/10) 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, Ludema

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

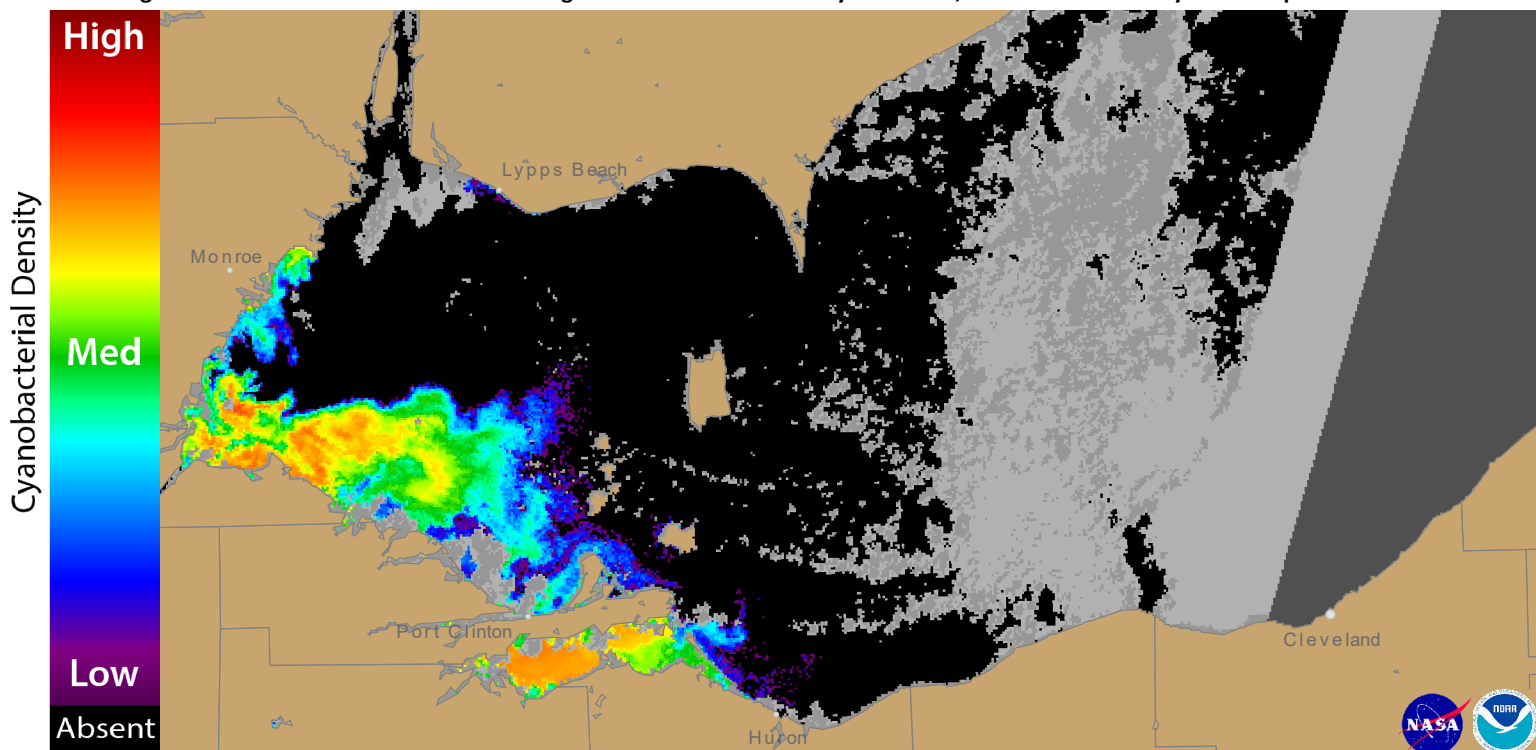
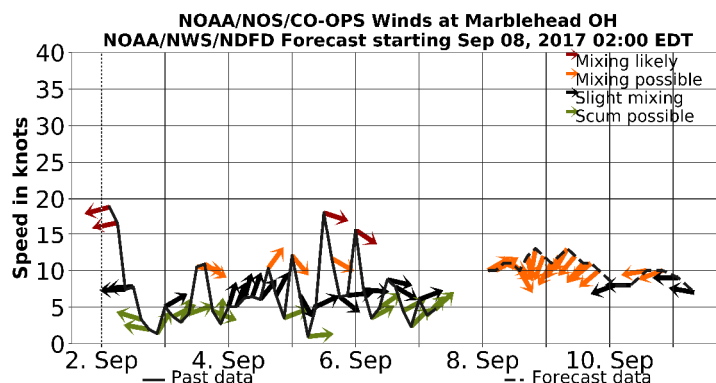


Figure 1. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 06 September, 2017 at 12:14 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.



Figure 2. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 06 September, 2017 at 12:14.



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).

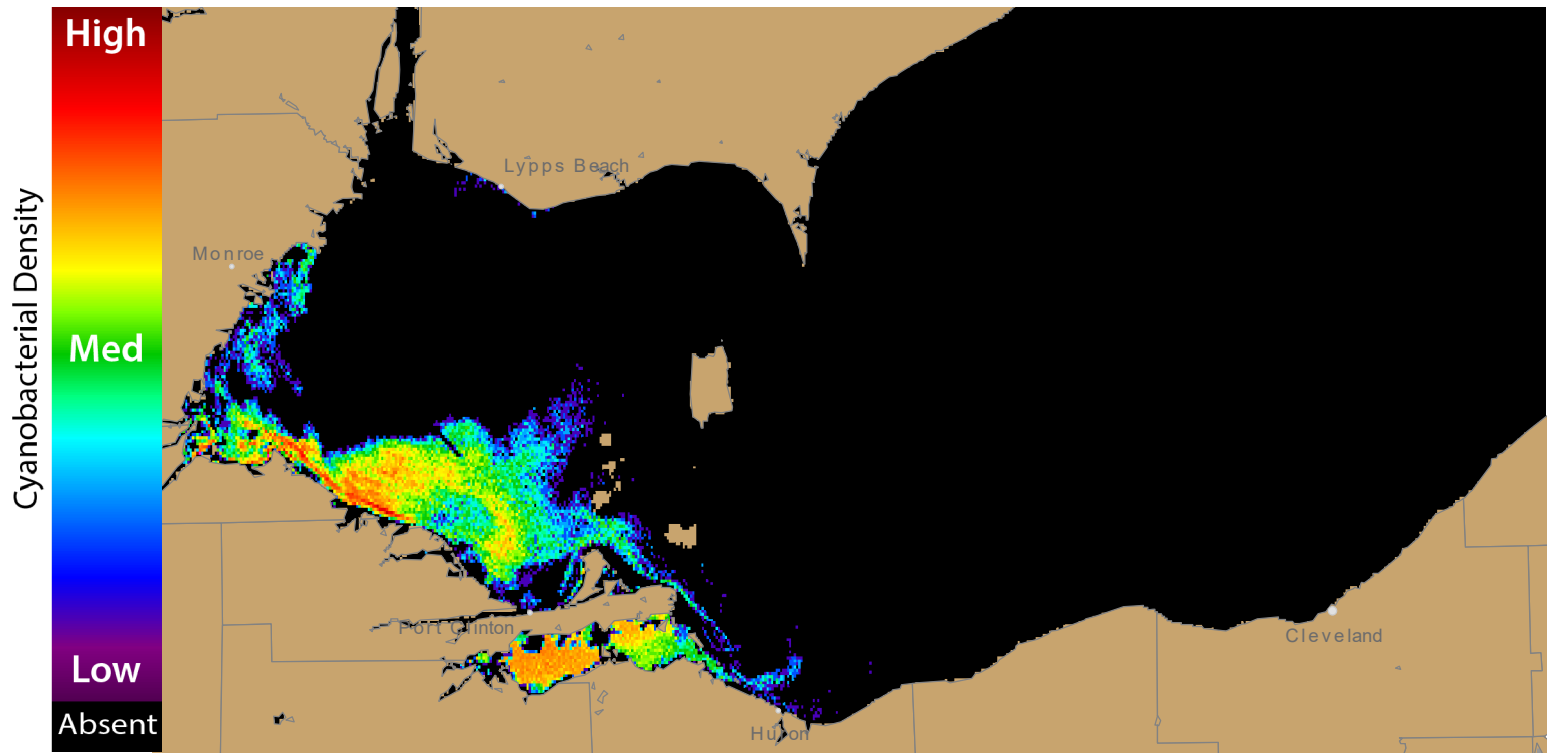


Figure 3. Nowcast position of bloom for 07 September, 2017 using GLFS modelled currents to move the bloom from the 06 September, 2017

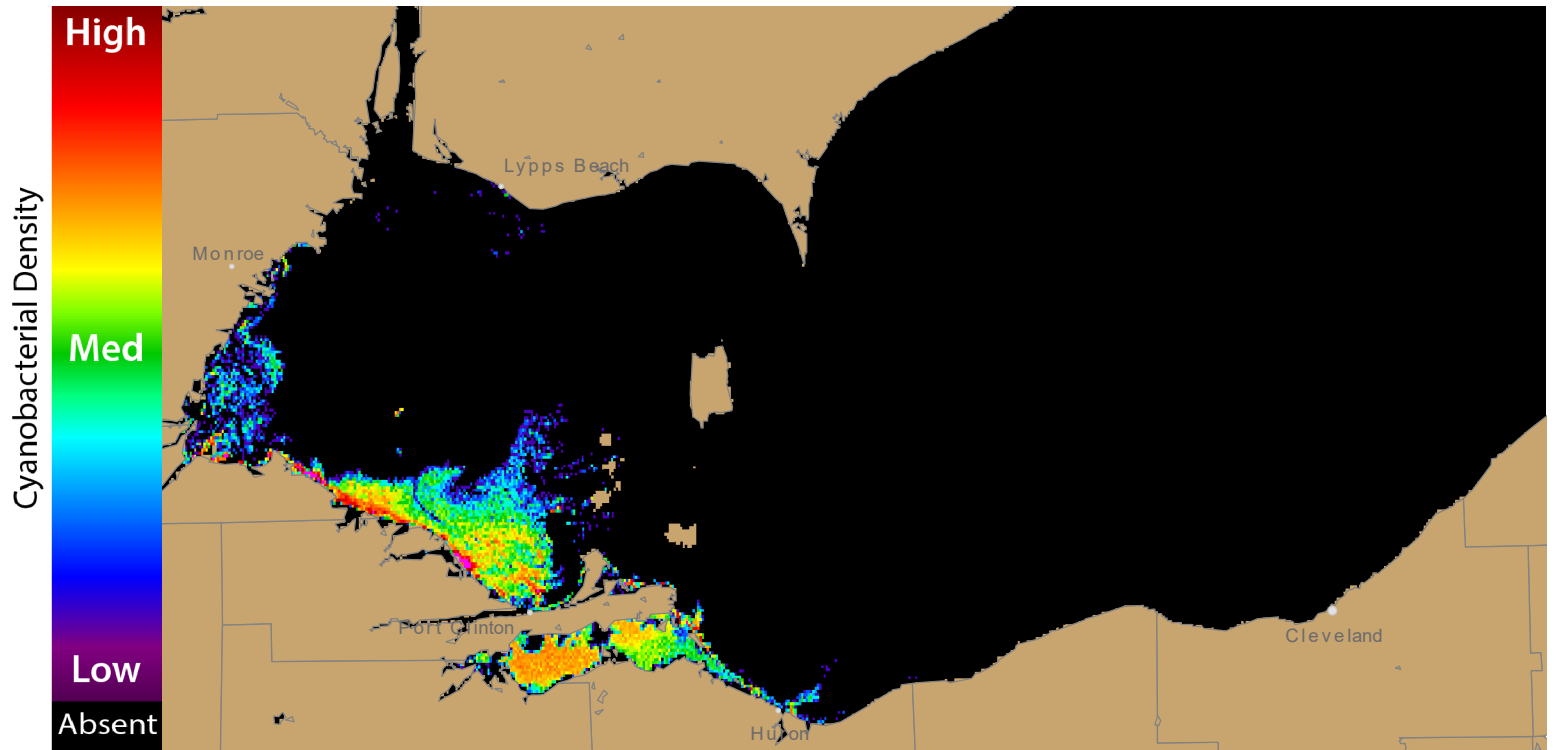
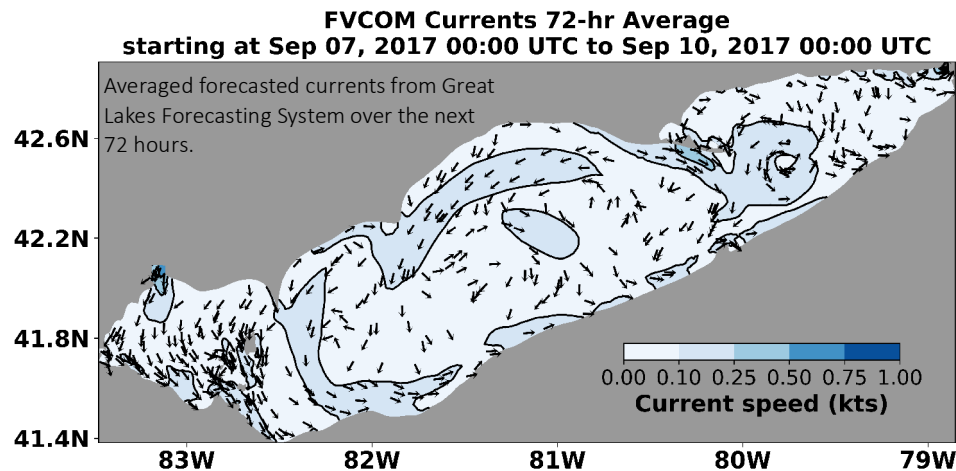


Figure 4. Forecast position of bloom for 10 September, 2017 using GLFS modelled currents to move the bloom from the 06 September, 2017



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