



Lake Erie Harmful Algal Bloom Bulletin

05 July, 2018, Bulletin 05

Analysis

The *Microcystis* cyanobacteria bloom continues in the western basin. Recent satellite imagery (7/4) indicates the bloom is still present along both the Michigan and Ohio coasts of Maumee Bay, 15 miles offshore the Michigan coast extending east of West Sister Island to Isle St. George, and 7 miles northwest of Pelee Island. Observed winds (7/2-5) reduced overall mixing of *Microcystis*, save a brief period of winds on Tuesday that mixed surface *Microcystis* concentrations. Scum has been observed alongshore South Bass Island. Measured toxin concentrations are below recreational thresholds throughout most of the bloom extent, but concentrations can exceed the threshold in the western extent of the bloom where it is most dense (appearing green from a boat). *Keep pets and yourself out of the water in areas where scum is forming.* The persistent cyanobacteria bloom in Sandusky Bay continues, spilling out of the bay and east along the Ohio coast. A cyanobacteria bloom caused by *Dolichospermum* continues in the central basin. This bloom is different from the western basin bloom, and in past years has lasted only a few weeks.

Forecasts

Forecast winds (6-16 kn) today through Monday (7/5-9) are likely to cause mixing and minimize the potential for transport of surface *Microcystis* concentrations. —Ludema, Keeney

Additional Resources

To find a safe place for recreation, visit the Ohio DOH "BeachGuard" site: <http://publicapps.odh.ohio.gov/beachguardpublic/>
Ohio EPA's site on harmful algal blooms: <http://epa.ohio.gov/HAB-Algae>
NOAA's GLERL provides additional HAB data here: http://www.glerl.noaa.gov/res/HABs_and_Hypoxia

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

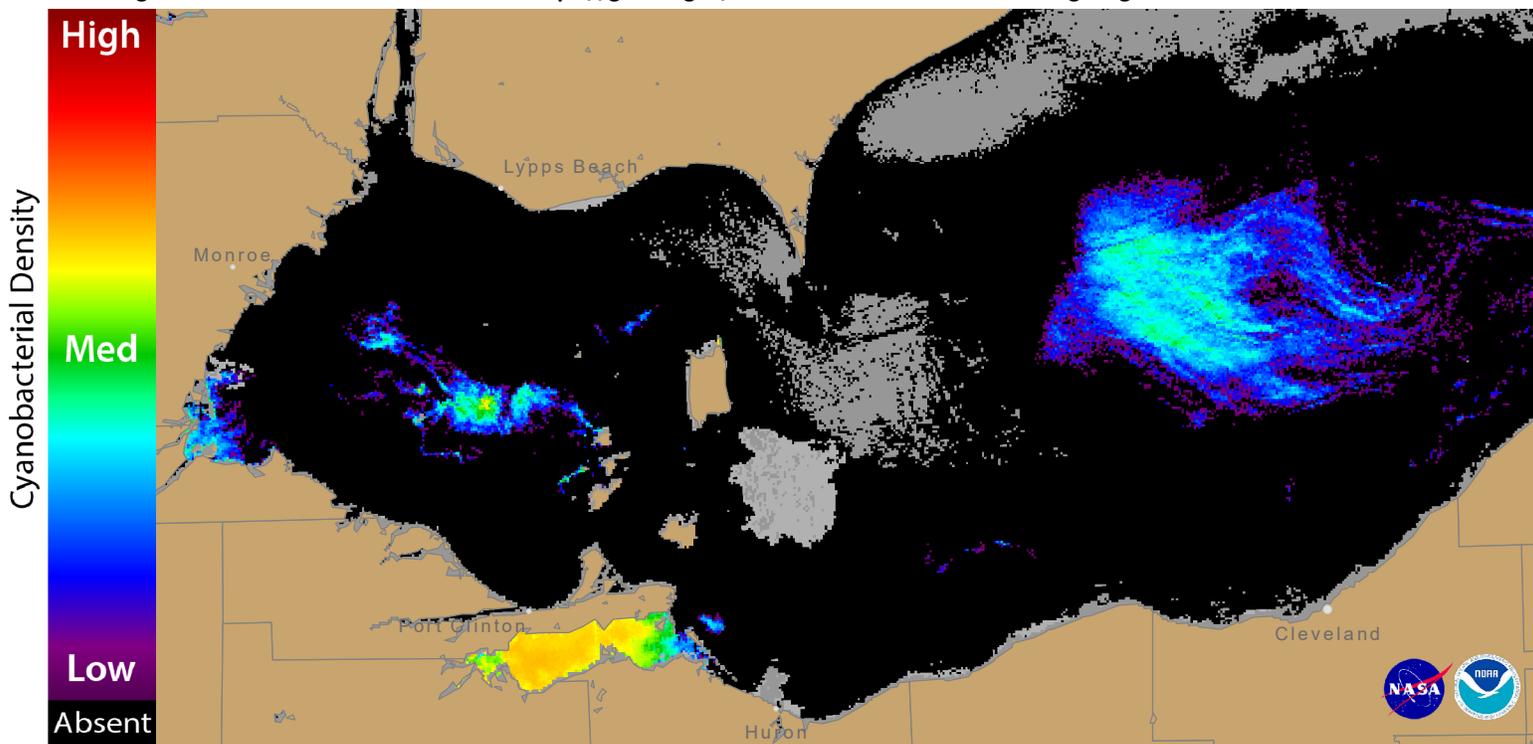


Figure 1. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 04 July, 2018 at 12:08 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/ml

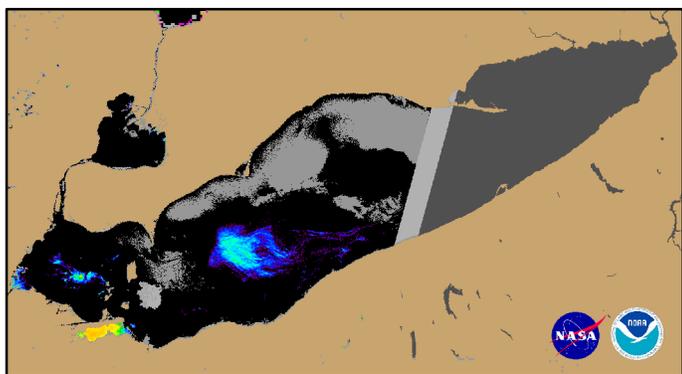
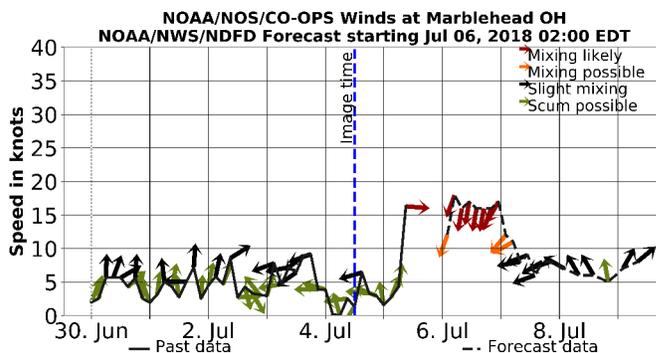


Figure 2. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 04 July, 2018 at 12:08.



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>

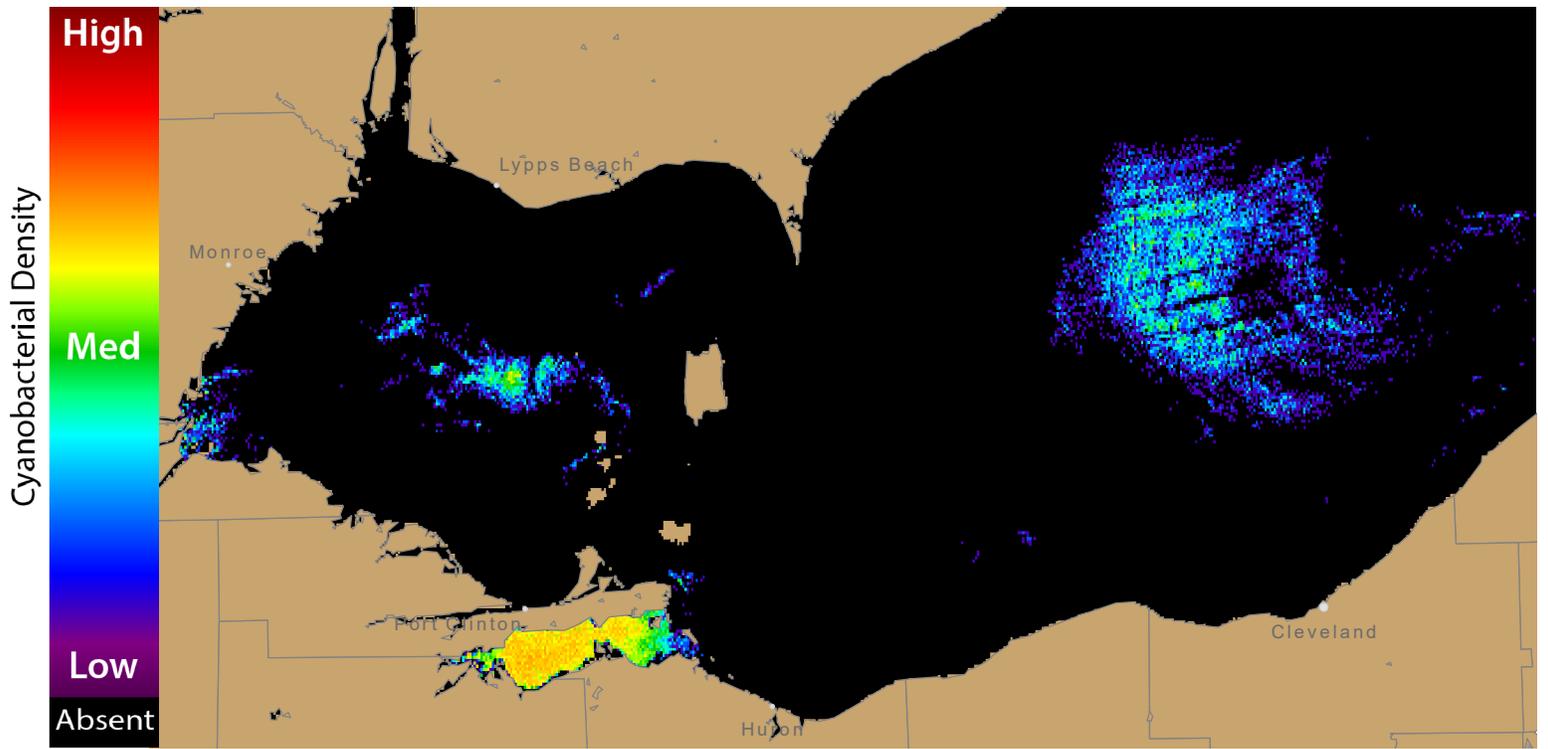


Figure 3. Nowcast position of bloom for 05 July, 2018 using GLFS modelled currents to move the bloom from the 04 July, 2018 image.

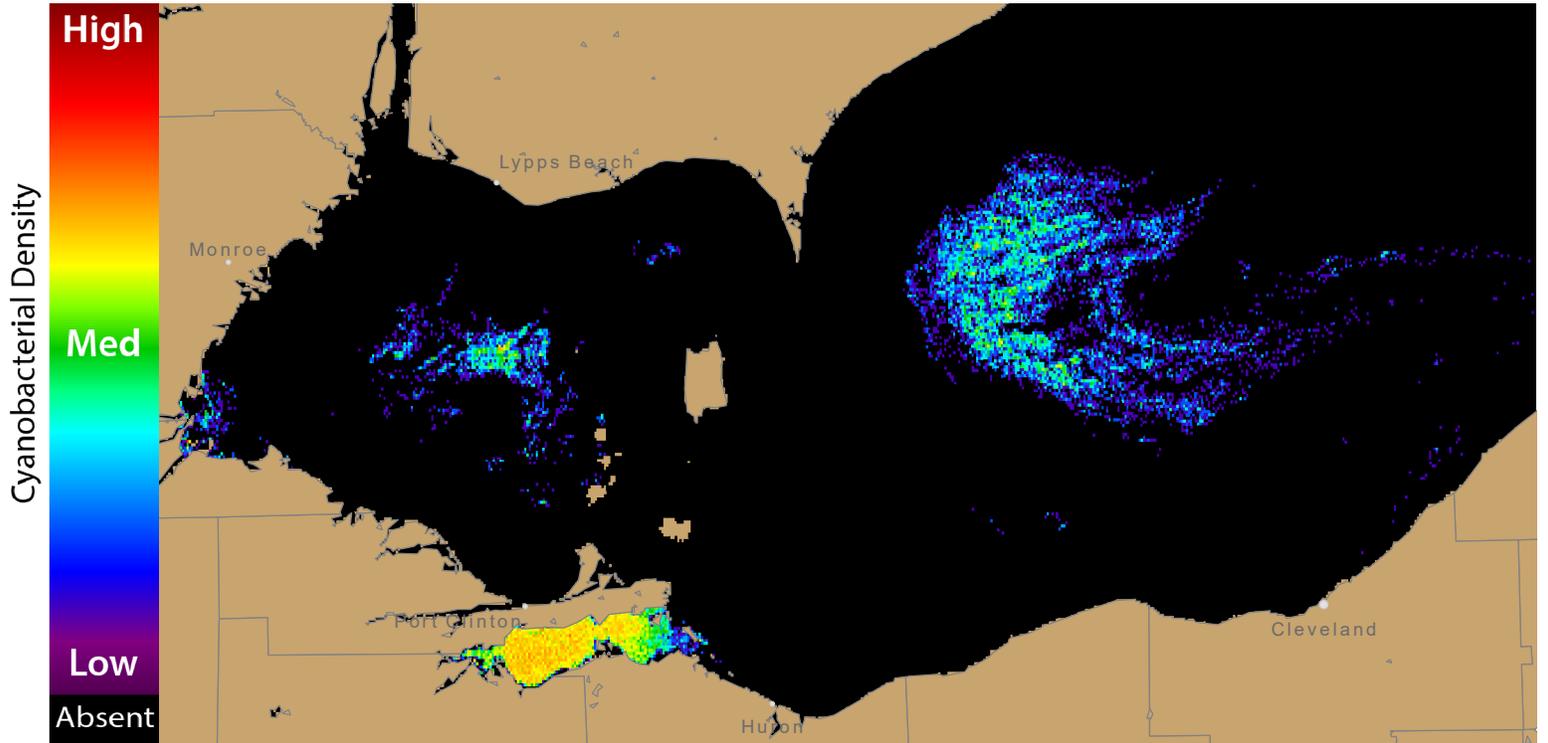
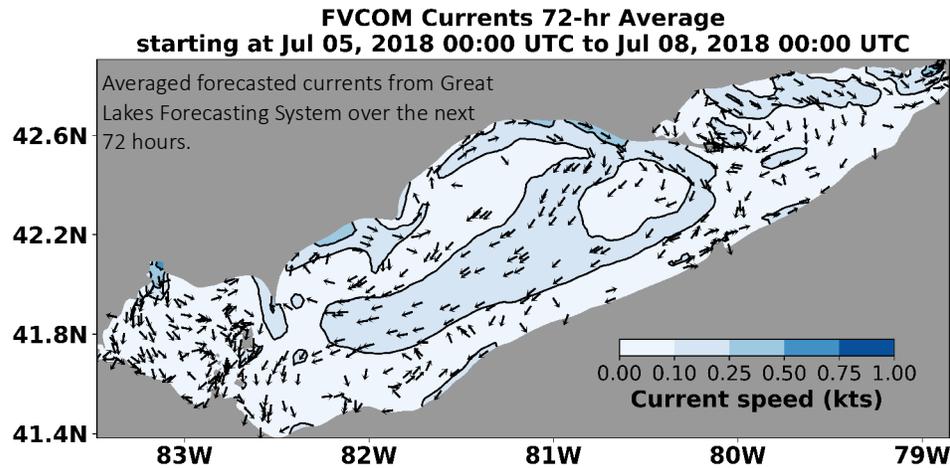


Figure 4. Forecast position of bloom for 08 July, 2018 using GLFS modelled currents to move the bloom from the 04 July, 2018 image.



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