



# Lake Erie Harmful Algal Bloom Bulletin

24 July, 2017, Bulletin 04

The *Microcystis* cyanobacteria bloom is present in the western basin, extending from Maumee Bay stretching along- and offshore the Michigan coast to Brest Bay and along- and offshore the Ohio coast past Cedar Point. Observed winds yesterday (7/23) caused mixing that reduced surface concentrations from earlier. Some scum was present within Maumee Bay and extending out along the Michigan and Ohio coasts. Measured toxin concentrations are below recreational thresholds throughout the bloom extent.

Forecast winds (10-15kn) today and tomorrow (7/24-25) may cause mixing, reducing the area of scum in the bloom region. Winds will promote the easterly transport of *Microcystis* today through Thursday (7/24-27) towards the center of the western basin.

The persistent cyanobacteria bloom of *Planktothrix* continues in Sandusky Bay and extends into Lake Erie.

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).

-Urizar, Ludema

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

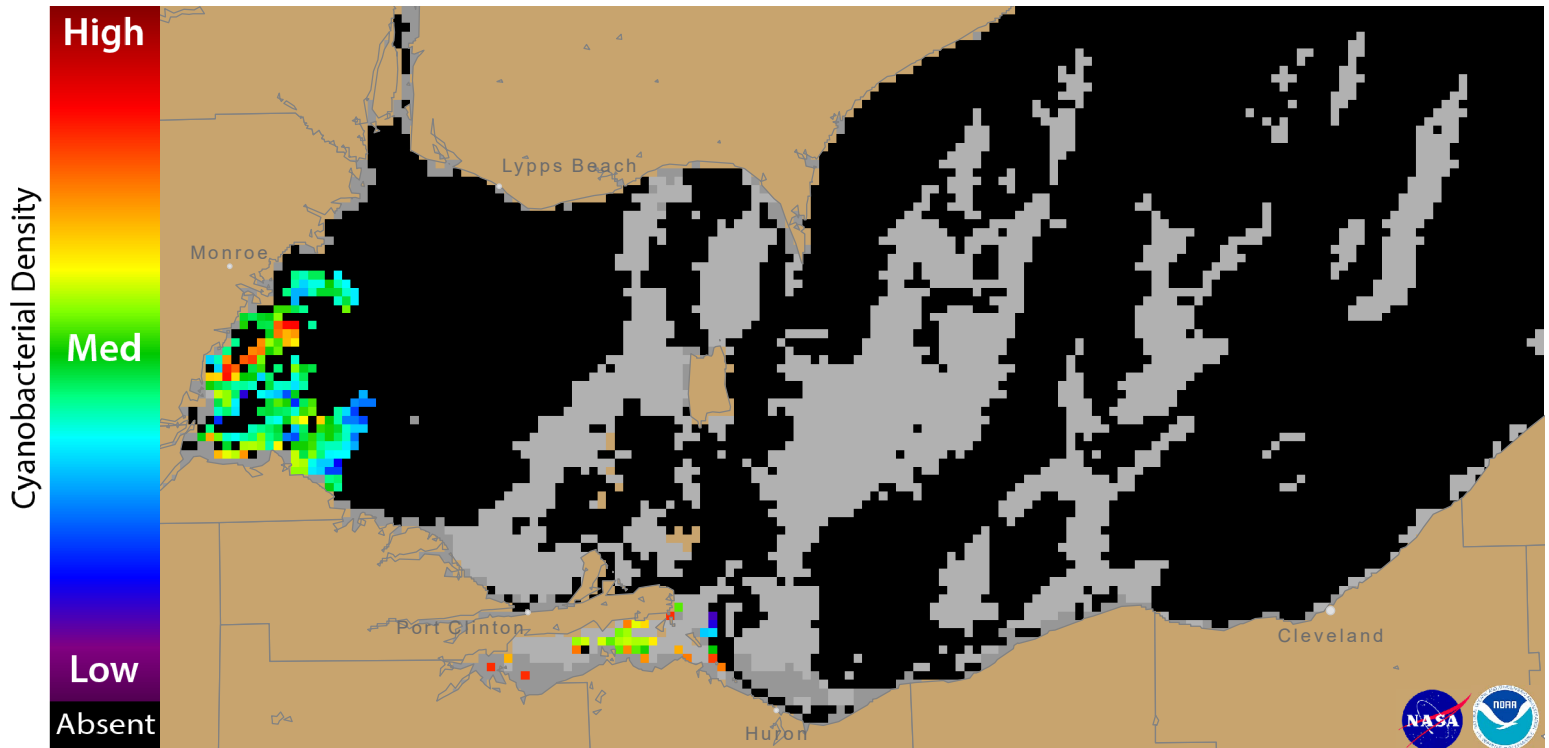


Figure 1. Cyanobacterial Index from NASA's MODIS-Aqua & Terra data collected 21 July, 2017 at 12:56 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

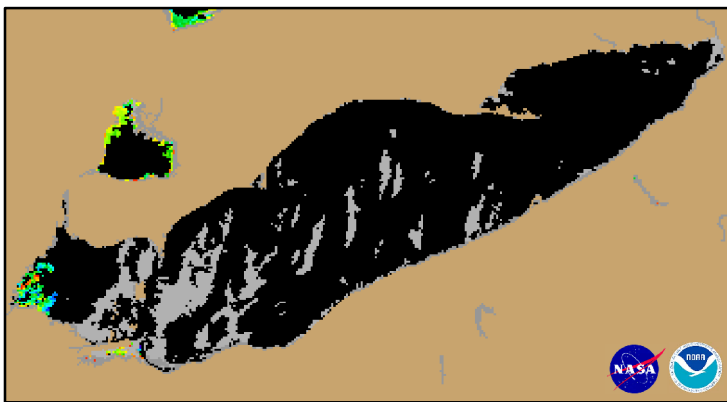
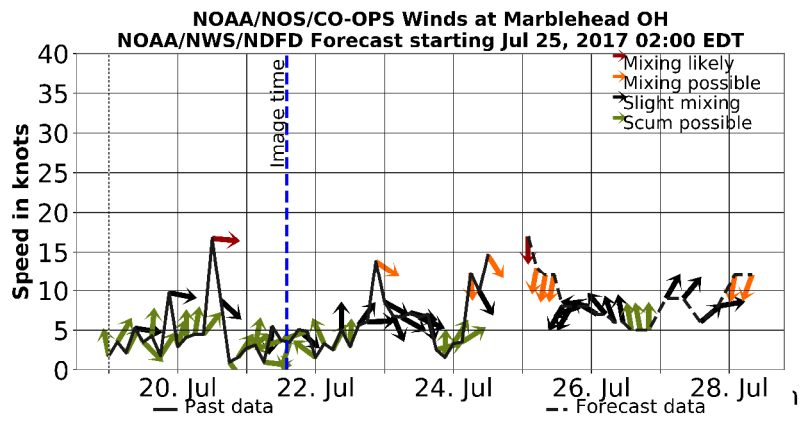


Figure 2. Cyanobacterial Index from NASA's MODIS-Aqua & Terra data collected 21 July, 2017 at 12:56.



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).

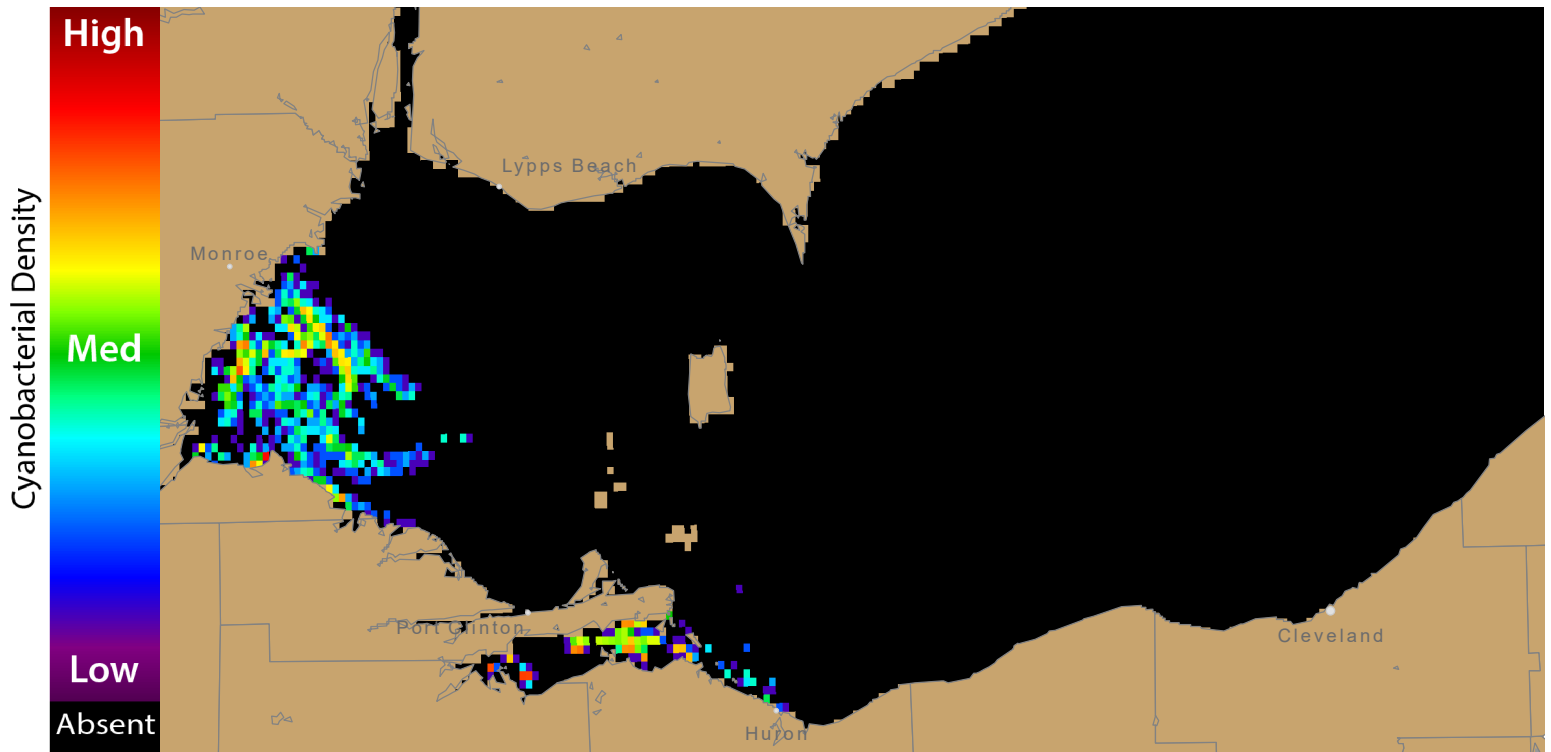


Figure 3. Nowcast position of bloom for 24 July, 2017 using GLFS modelled currents to move the bloom from the 21 July, 2017 image.

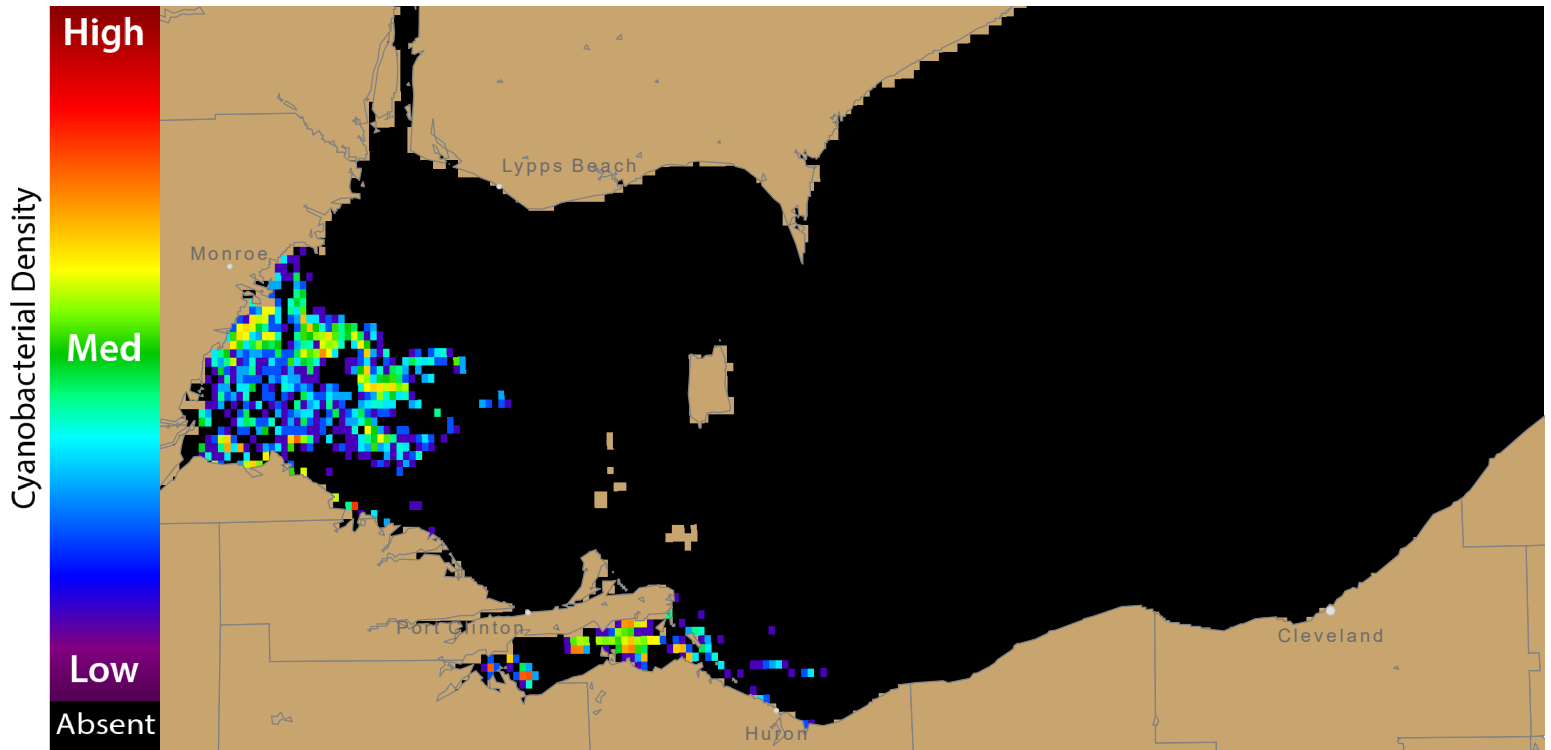
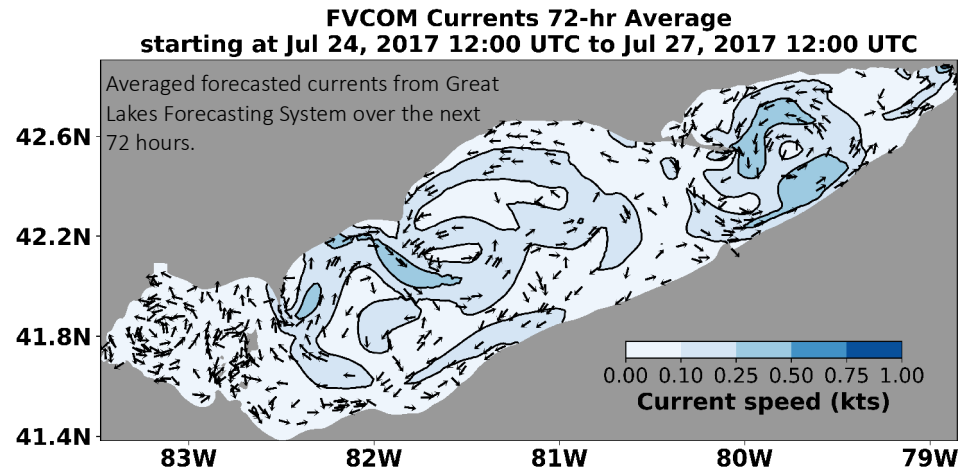


Figure 4. Forecast position of bloom for 27 July, 2017 using GLFS modelled currents to move the bloom from the 21 July, 2017 image.



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