



Lake Erie Harmful Algal Bloom Bulletin

31 July, 2017, Bulletin 06

The *Microcystis* cyanobacteria bloom continues in the western basin along- and offshore the Ohio and Michigan coast from Maumee Bay north past Stony Point. Observed winds last week (7/28-29) caused mixing that reduced surface concentrations from earlier. Measured toxin concentrations are below recreational thresholds throughout the bloom extent.

Forecast winds (2-10kn) today and tomorrow (7/31-8/1) will reduce mixing, increasing the chance of scum formation in the bloom region. Winds will promote the easterly transport of *Microcystis* today through Thursday (7/31-8/3) towards the Bass Islands.

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.

-Ludema, Davis

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

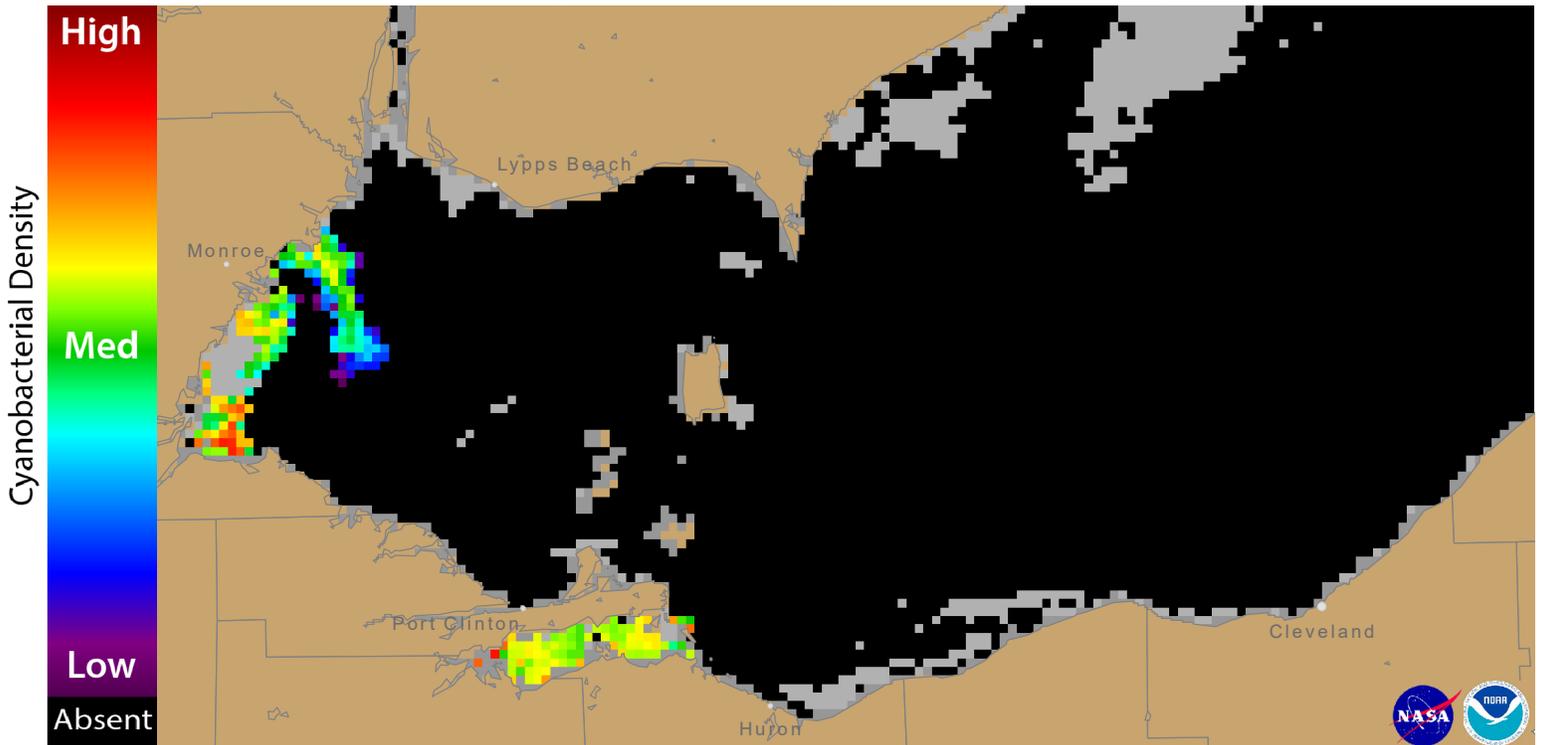


Figure 1. Cyanobacterial Index from NASA MODIS-Aqua data collected 30 July, 2017 at 12:50 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

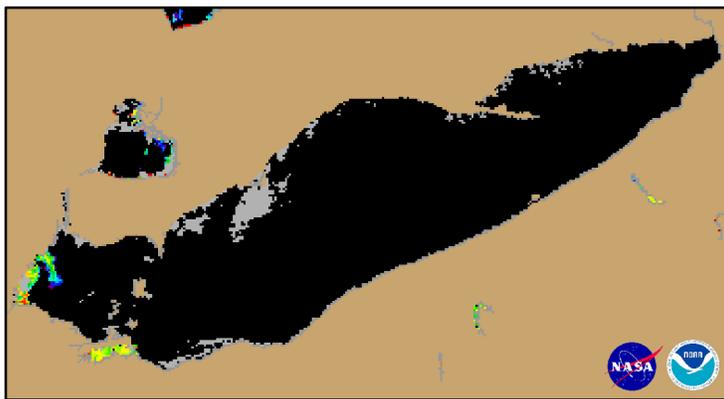
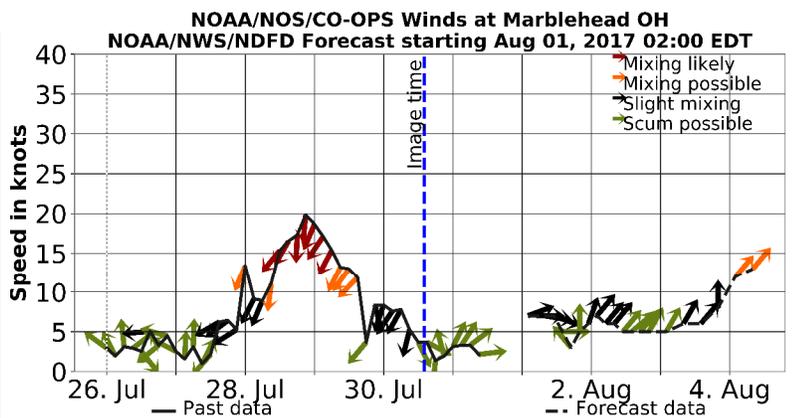


Figure 2. Cyanobacterial Index from NASA MODIS-Aqua data collected 30 July, 2017 at 12:50.



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).

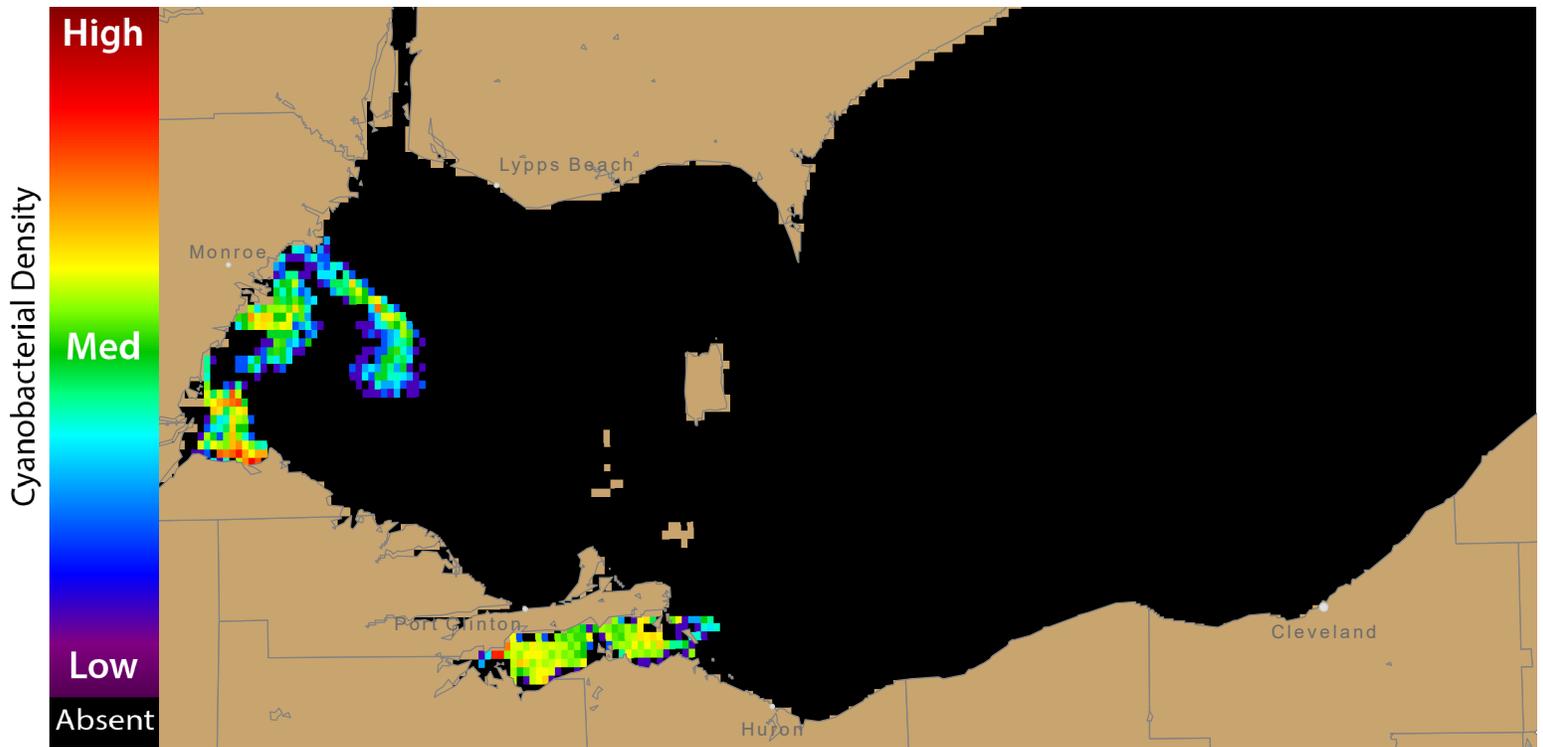


Figure 3. Nowcast position of bloom for 31 July, 2017 using GLFS modelled currents to move the bloom from the 30 July, 2017 image.

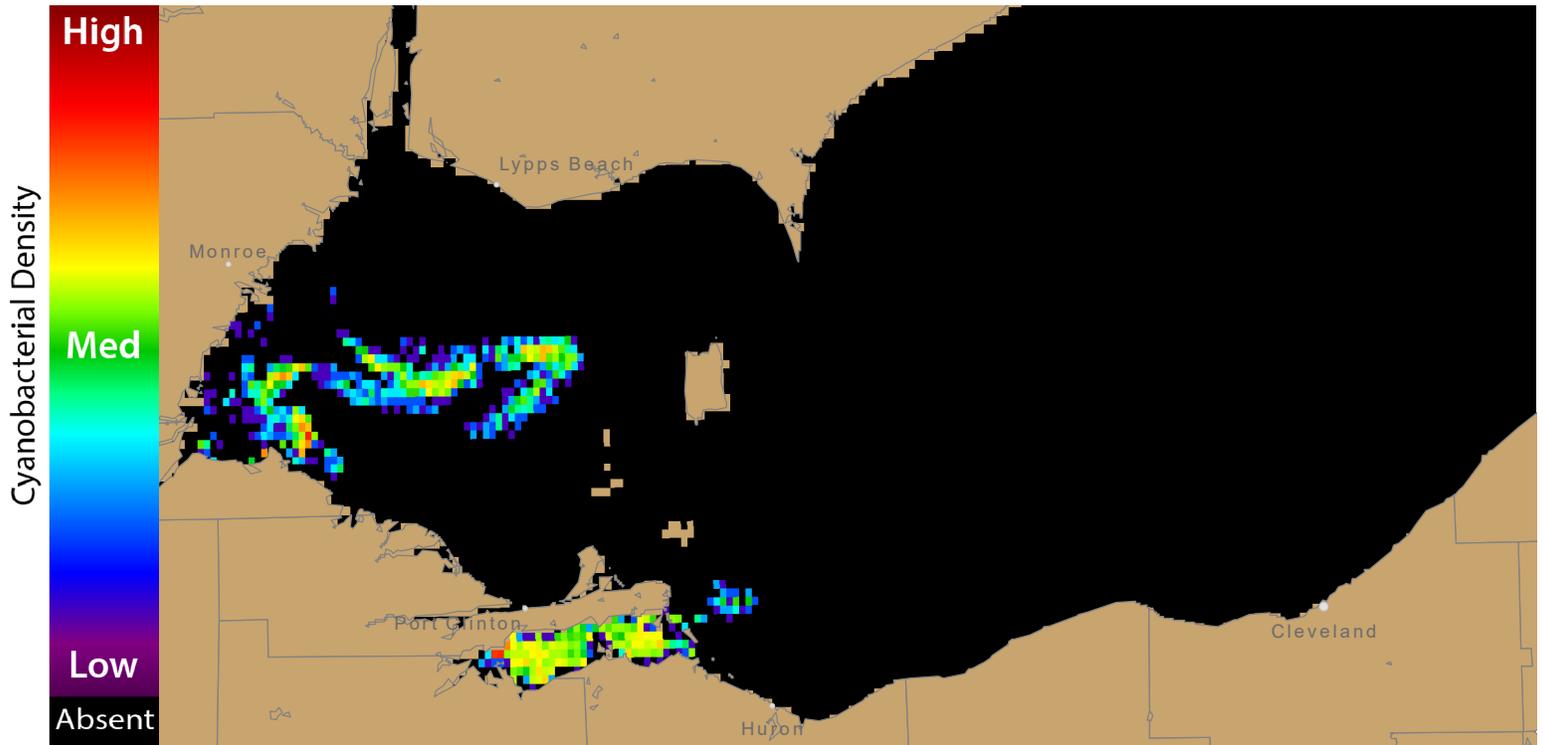
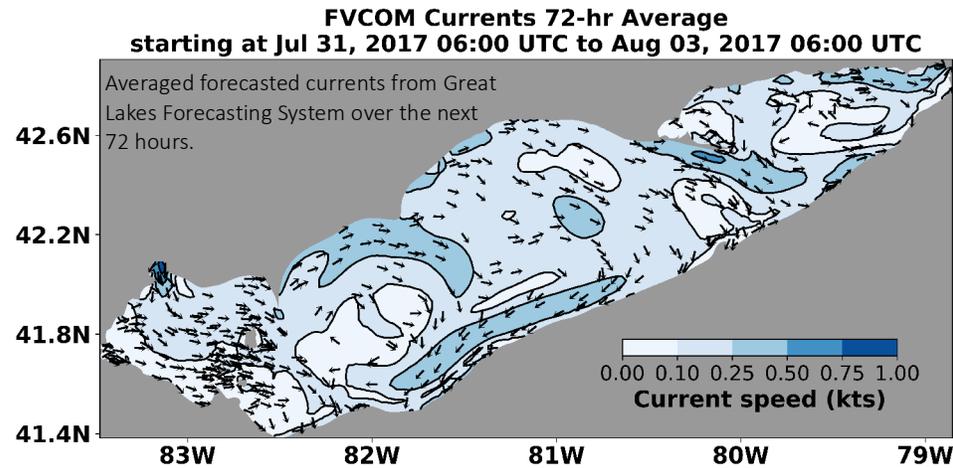


Figure 4. Forecast position of bloom for 03 August, 2017 using GLFS modelled currents to move the bloom from the 30 July, 2017 image.



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