



Lake Erie Harmful Algal Bloom Bulletin

16 July, 2018, Bulletin 08

Analysis

The *Microcystis* cyanobacteria bloom continues in the western basin. Recent satellite imagery (7/15) indicates the bloom is still present in Maumee Bay, extending north along the Michigan coast to Brest Bay and northeast to Pelee 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). Mild winds observed over the weekend reduced mixing and scum has been observed in Maumee Bay. *Keep pets and yourself out of the water in areas where scum is forming.* The cyanobacteria bloom in Sandusky Bay persists, spilling out of the bay and east along the Ohio coast. A cyanobacteria bloom caused by *Dolichospermum* is again visible in the central basin in recent imagery (7/13-15). This bloom is different from the western basin bloom, and in past years has lasted only a few weeks.

Forecasts

Forecast winds (6-13 kn) today through Thursday (7/15-19) may promote mixing of surface waters and southeastward transport of surface *Microcystis* concentrations. –Keeney, Ludema

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.

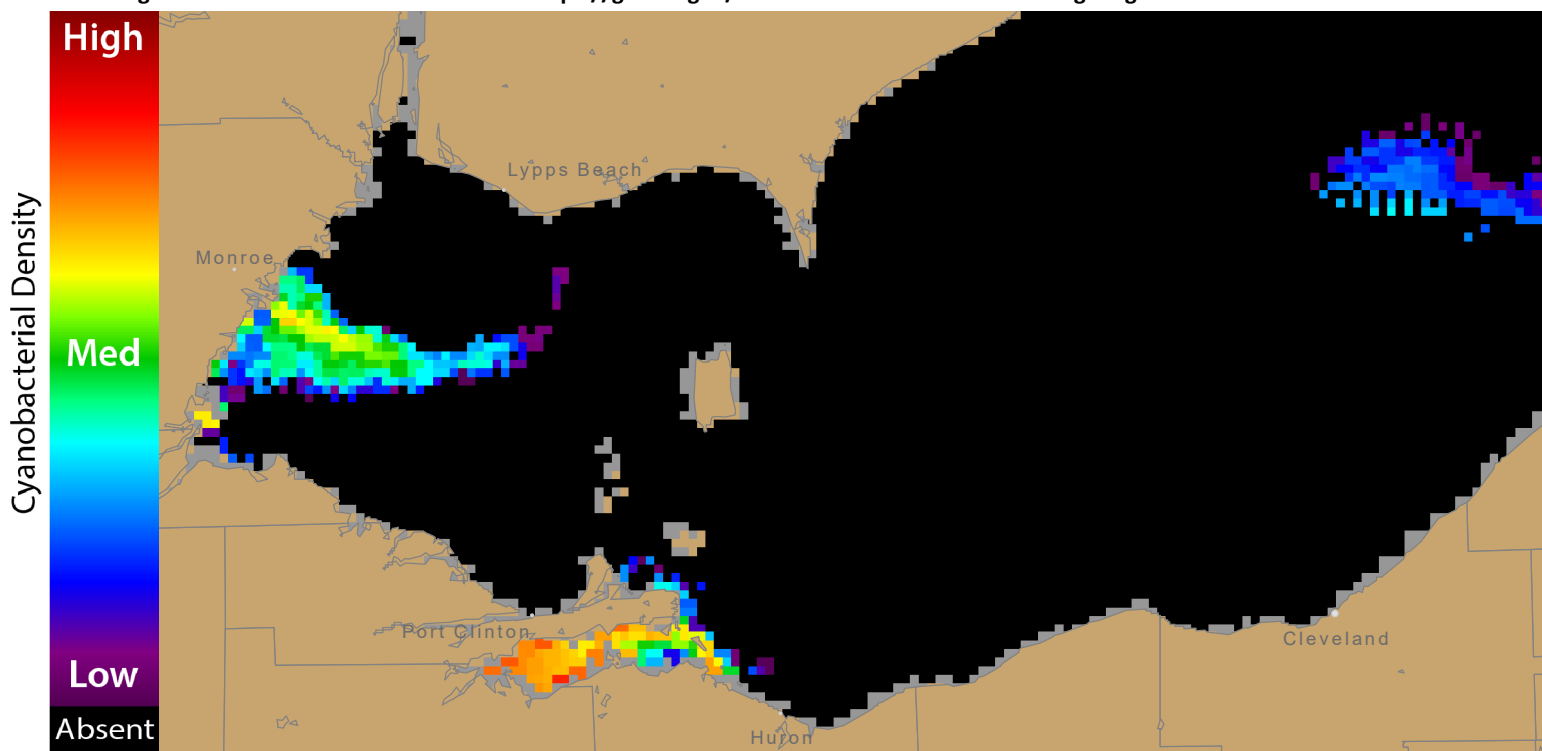


Figure 1. Cyanobacterial Index from NASA MODIS-Terra data collected 15 July, 2018 at 11:19 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

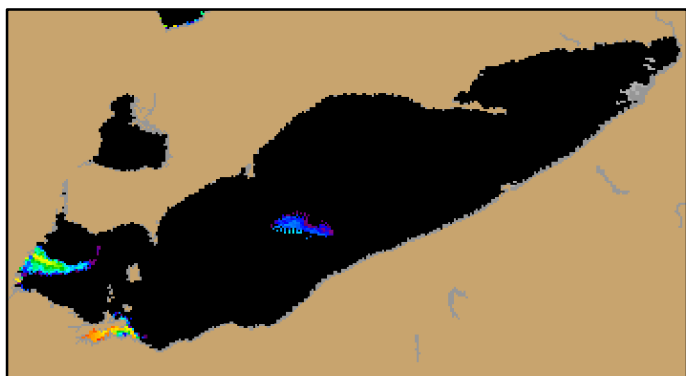
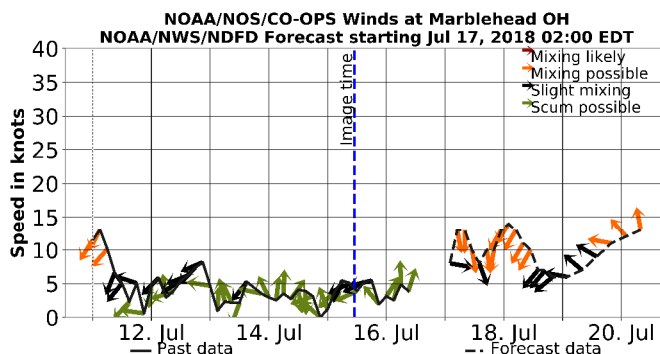


Figure 2. Cyanobacterial Index from NASA MODIS-Terra data collected 15 July, 2018 at 11:19.



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).

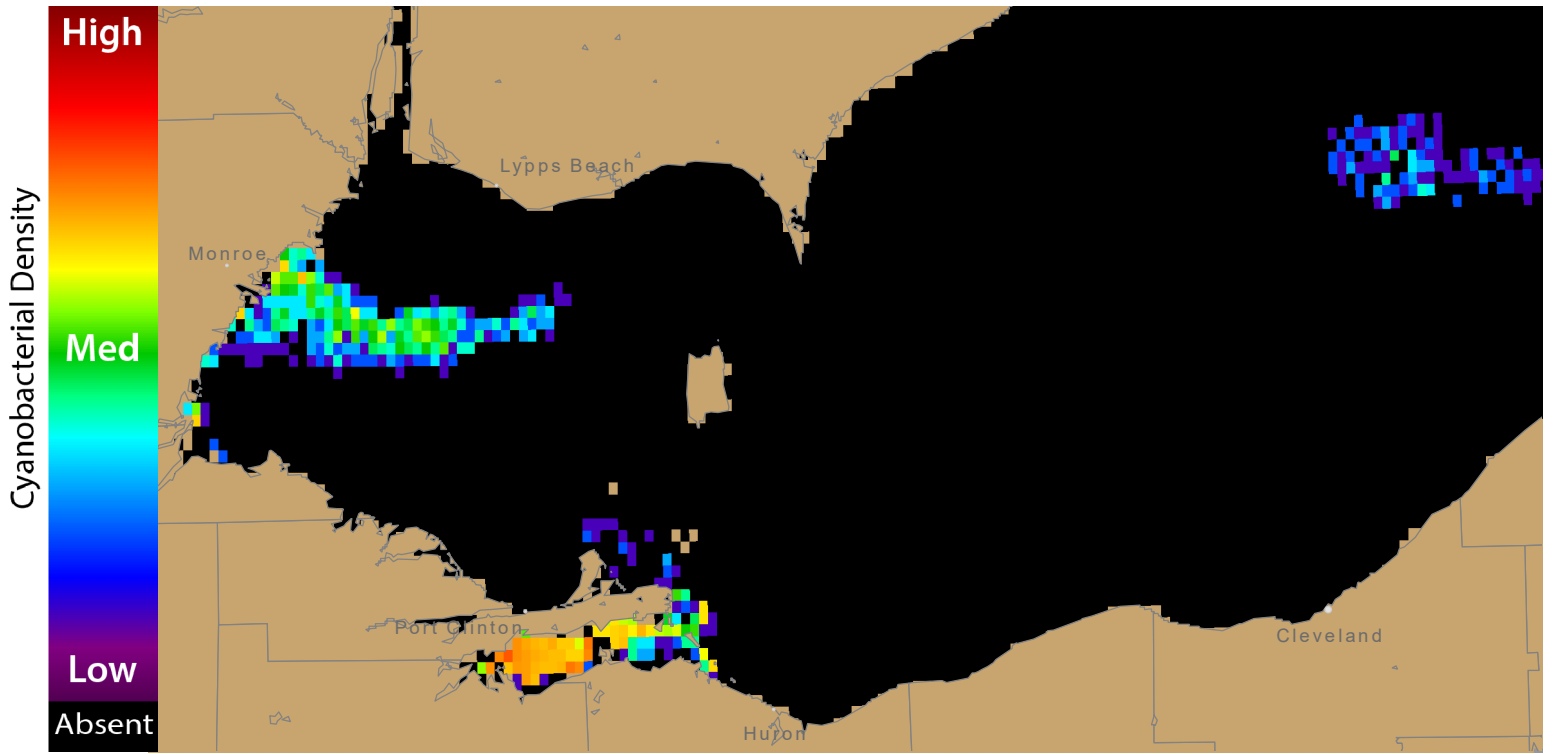


Figure 3. Nowcast position of bloom for 16 July, 2018 using LEOFS modelled currents to move the bloom from the 15 July, 2018 image.

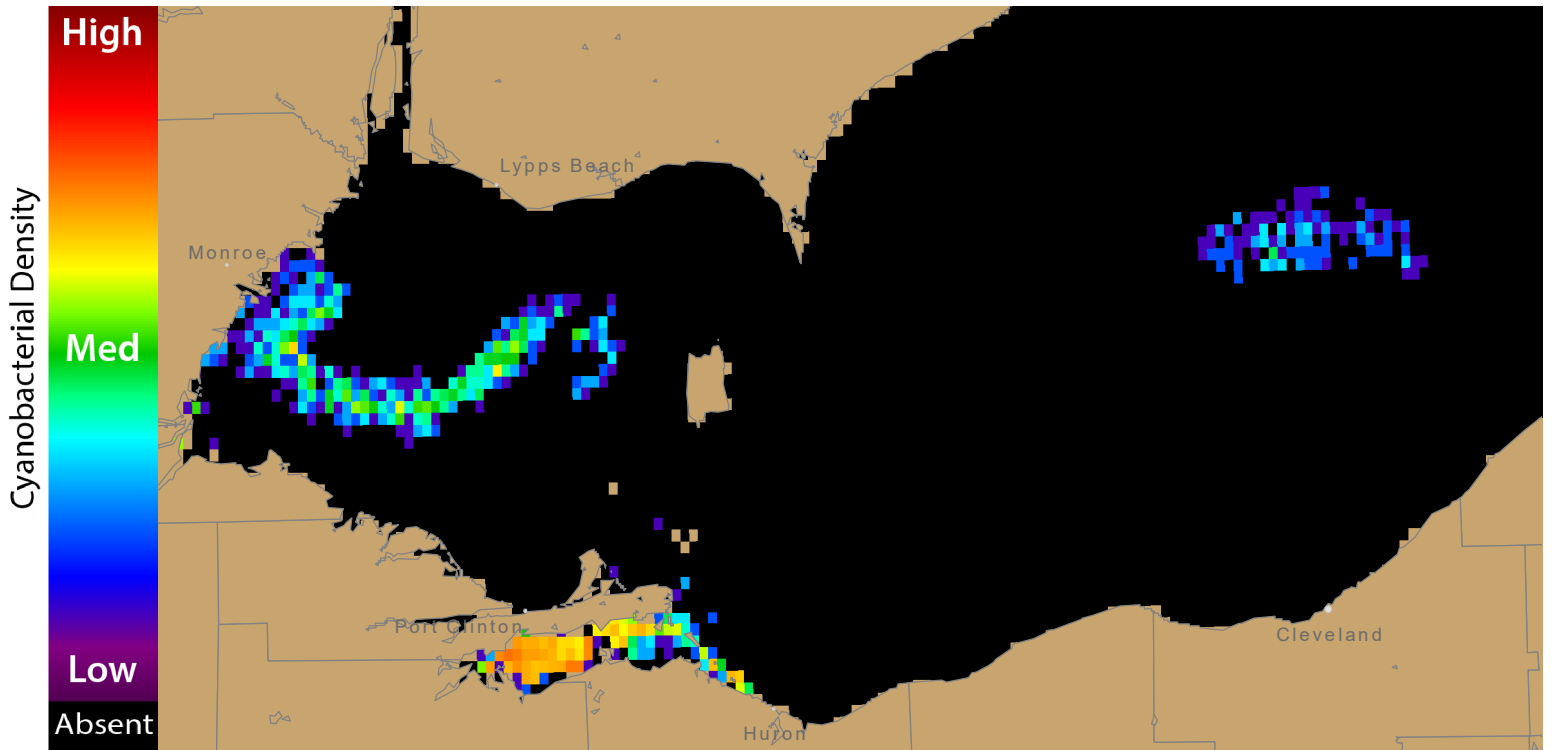
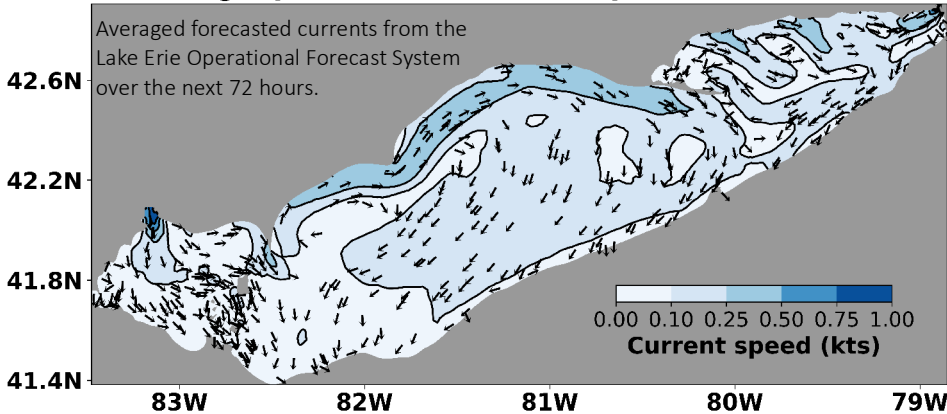


Figure 4. Forecast position of bloom for 19 July, 2018 using LEOFS modelled currents to move the bloom from the 15 July, 2018 image.

**FVCOM Currents 72-hr Average
starting at Jul 16, 2018 06:00 UTC to Jul 19, 2018 06:00 UTC**



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