



Lake Erie Harmful Algal Bloom Bulletin

06 August, 2018, Bulletin 14

Analysis

The *Microcystis* cyanobacteria bloom continues in the western basin. Recent satellite imagery (8/6) indicates the bloom is present in Maumee Bay, extending north along the Michigan coast to Brest Bay, east to touch Pelee Island, and along the Ohio coast 8 miles east of Sandusky Bay. Observed winds (8/3-5) reduced mixing and may have lead to scum formation. Measured toxin concentrations have been detected as far east as Kelleys Island, but are still below the recreational threshold throughout the bloom extent. *Keep pets and yourself out of the water in areas where scum is forming.* The persistent cyanobacteria bloom in Sandusky Bay continues.

Forecasts

Winds forecast (5-9 kn) today through Thursday (8/6-9) may lead to scum formation in areas of high *Microcystis* concentrations, save a short period of elevated winds (8/8) that could cause slight mixing. Eastward transport of surface *Microcystis* concentrations is predicted. Clouds will likely obscure the lake Tuesday and Wednesday (8/7-8). --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.

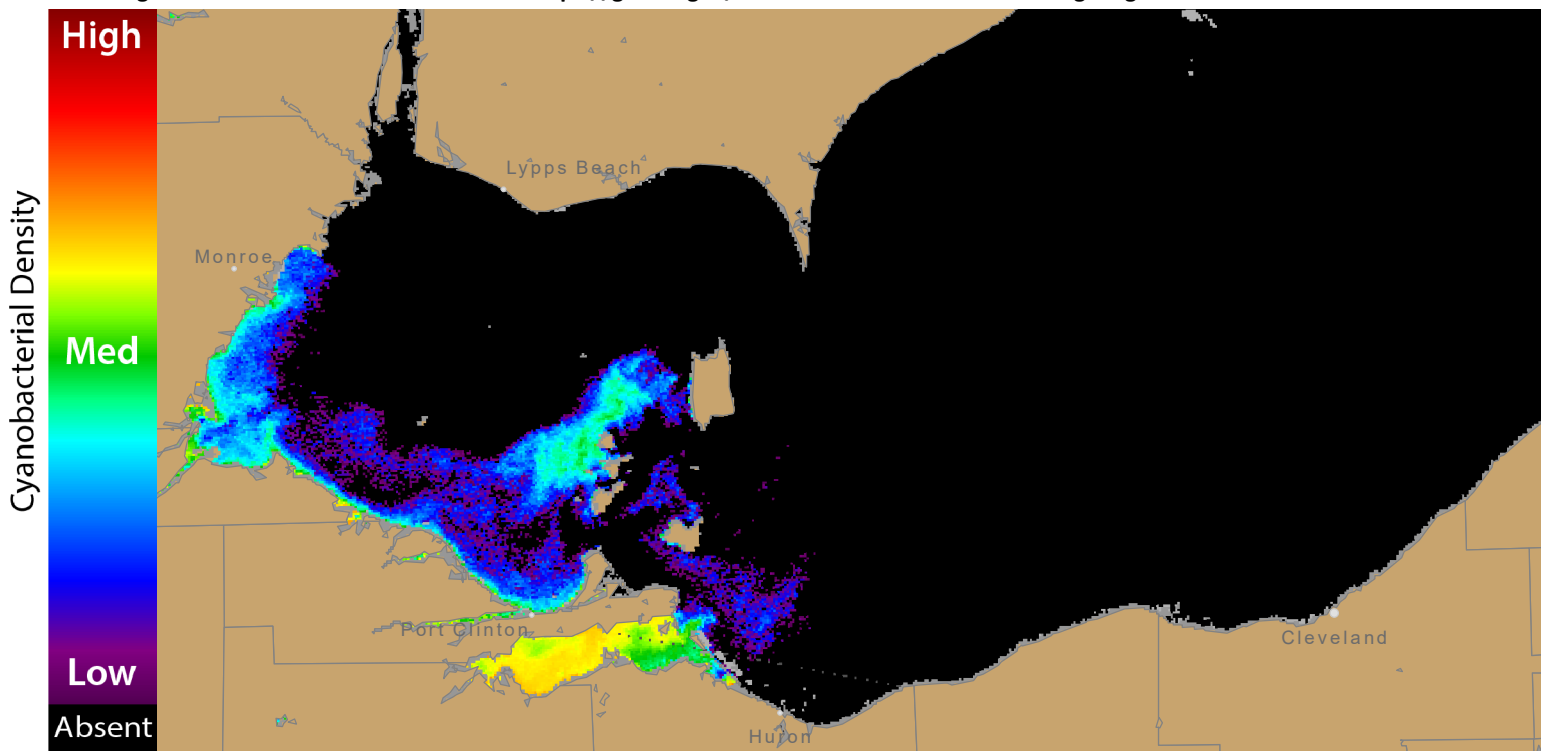


Figure 1. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 05 August, 2018 at 11:38 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/L

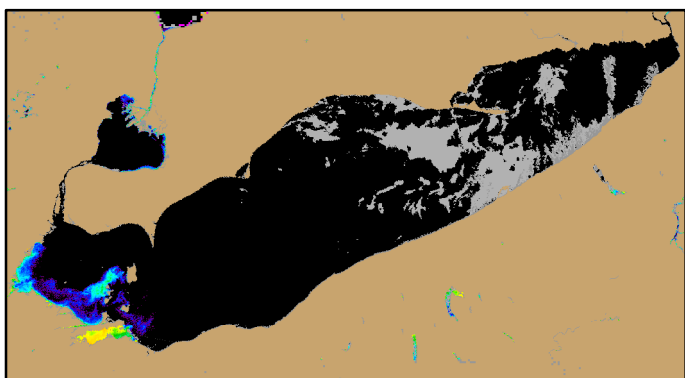
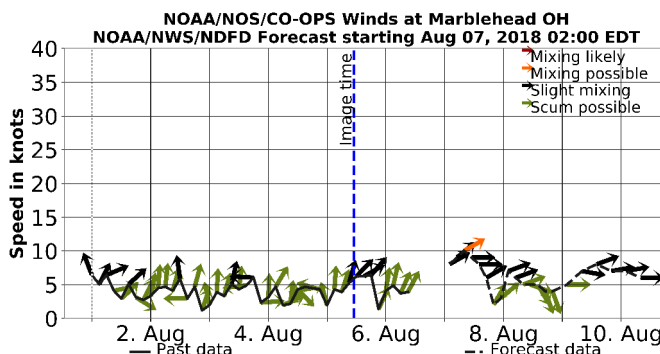


Figure 2. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 05 August, 2018 at 11:38.



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>

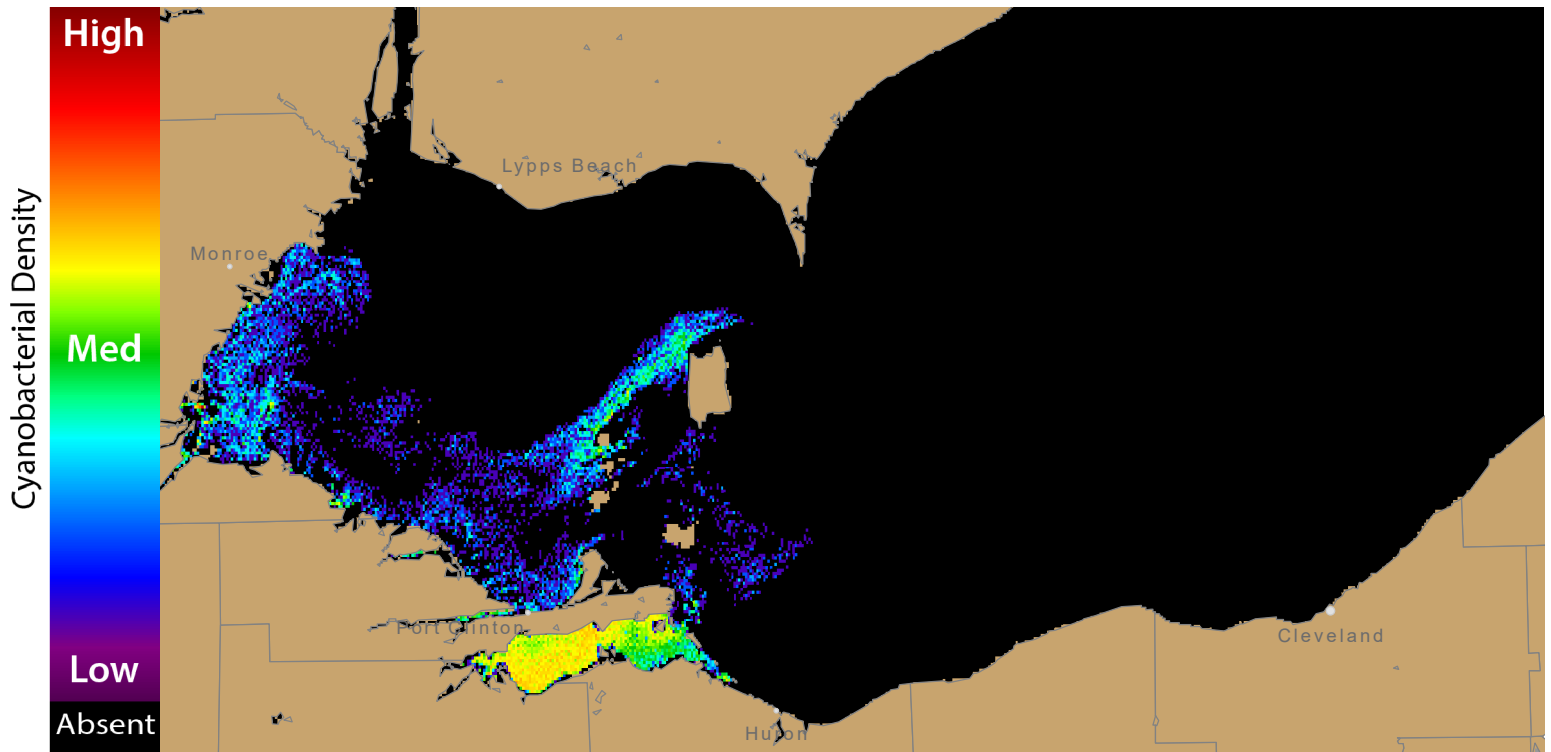


Figure 3. Nowcast position of bloom for 06 August, 2018 using LEOFS modelled currents to move the bloom from the 05 August, 2018

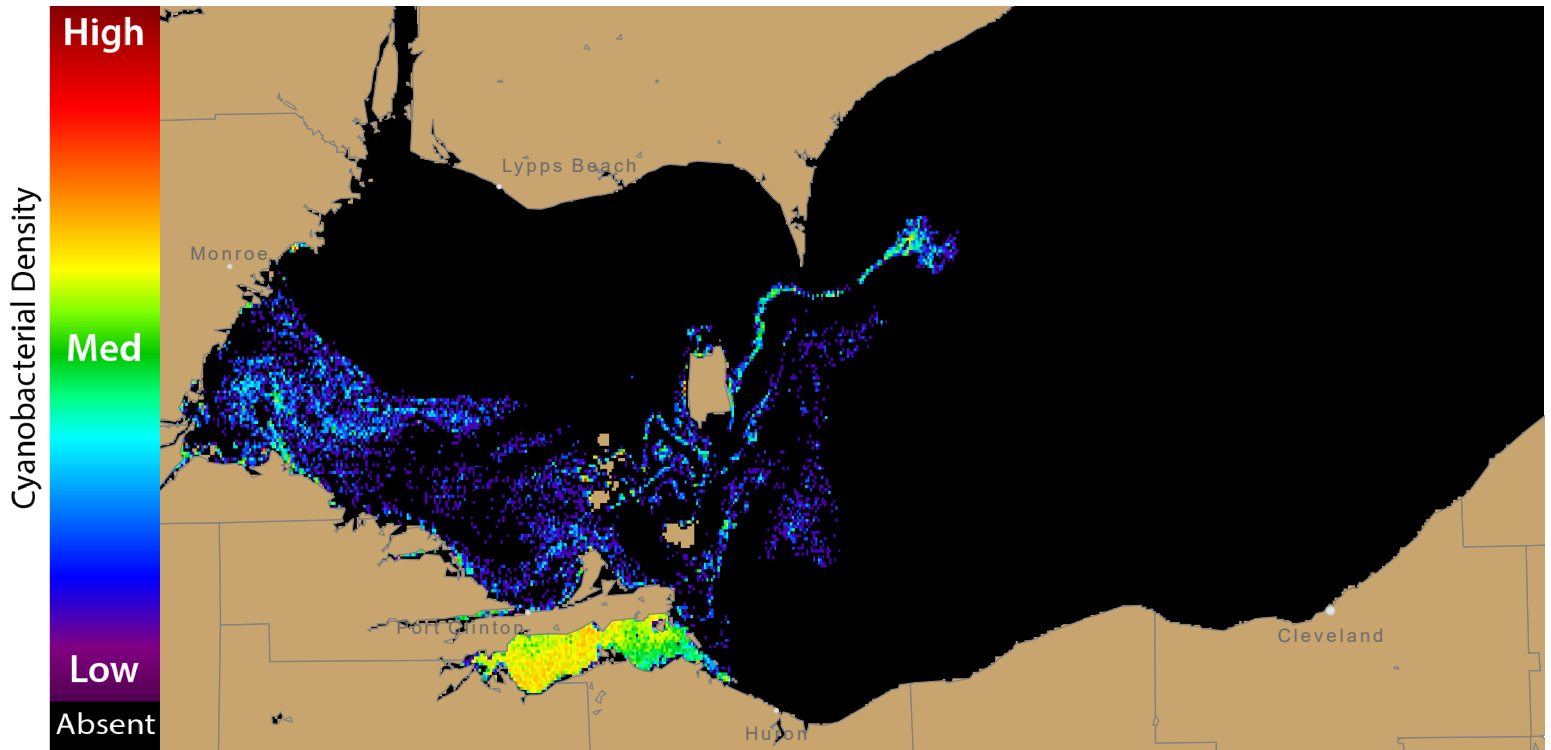
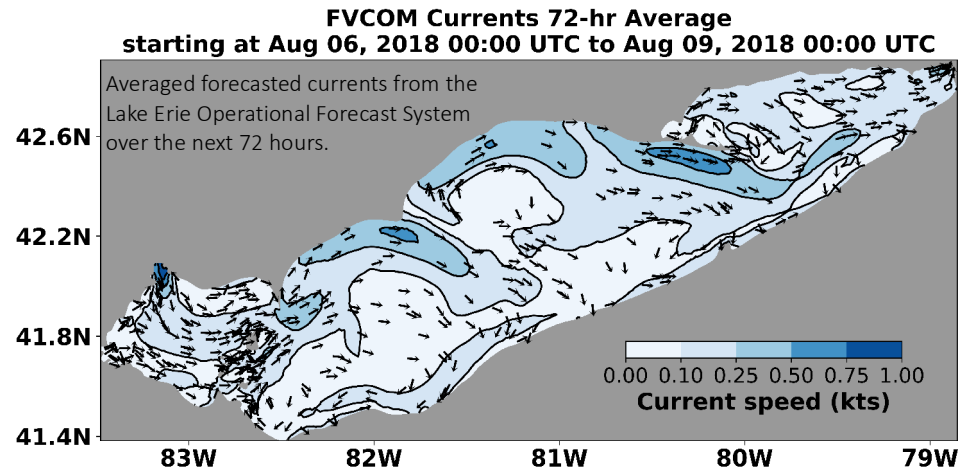


Figure 4. Forecast position of bloom for 09 August, 2018 using LEOFS modelled currents to move the bloom from the 05 August, 2018



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