



# Lake Erie Harmful Algal Bloom Bulletin

20 August, 2018, Bulletin 18

## Analysis

The *Microcystis* cyanobacteria bloom continues in the western basin of Lake Erie. In recent satellite imagery (8/18), the bloom extends from Maumee Bay north along the Michigan coast to Brest Bay, and extends along the Ohio coast to 6 miles northeast of the Toussaint River. Low concentrations are also present up to 3 miles east of Pelee Island. Winds observed over the weekend (8/18-19) promoted mixing of surface *Microcystis* concentrations. Toxin concentrations were detected at all sampling sites but are still below the recreational threshold throughout the bloom extent of the bloom. *Keep pets and yourself out of the water in areas where scum is forming.* The persistent cyanobacteria bloom in Sandusky Bay continues.

## Forecasts

Winds (6-18 kn) forecast today through Thursday (8/20-23) will likely lead to mixing of surface *Microcystis* concentrations and may promote northwestward transport. --Ludema, Davis

## 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](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.

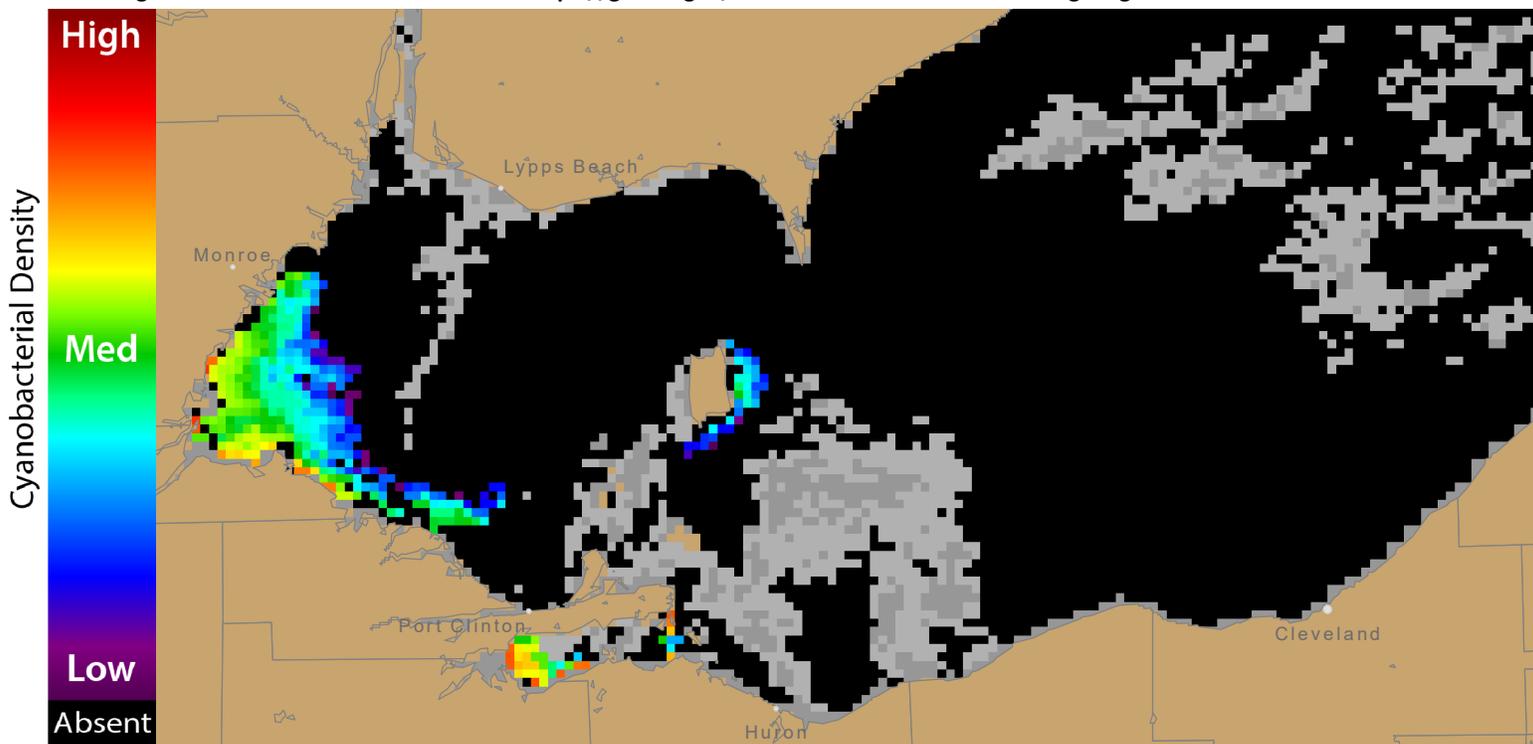
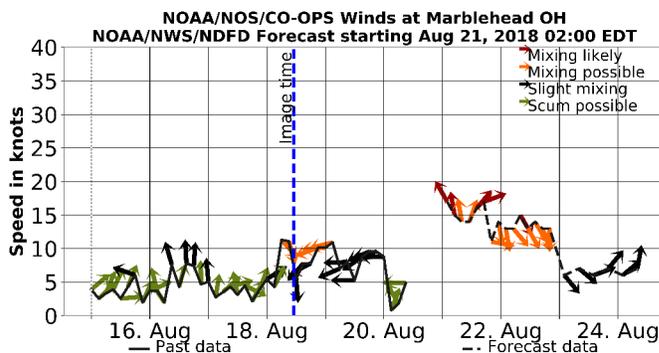


Figure 1. Cyanobacterial Index from NASA MODIS-Terra data collected 18 August, 2018 at 11:07 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.



Figure 2. Cyanobacterial Index from NASA MODIS-Terra data collected 18 August, 2018 at 11:07.



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).

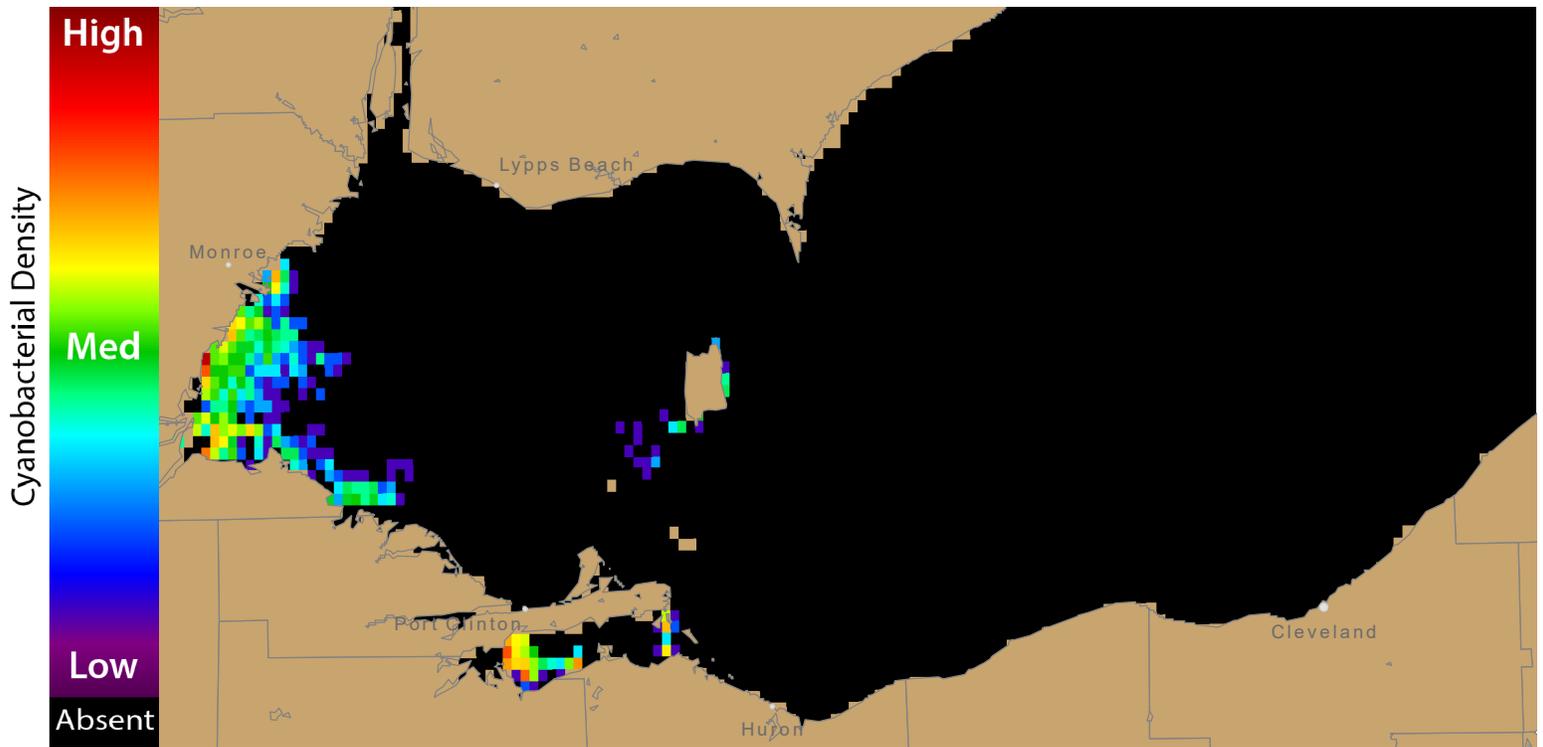


Figure 3. Nowcast position of bloom for 20 August, 2018 using LEOFS modelled currents to move the bloom from the 18 August, 2018

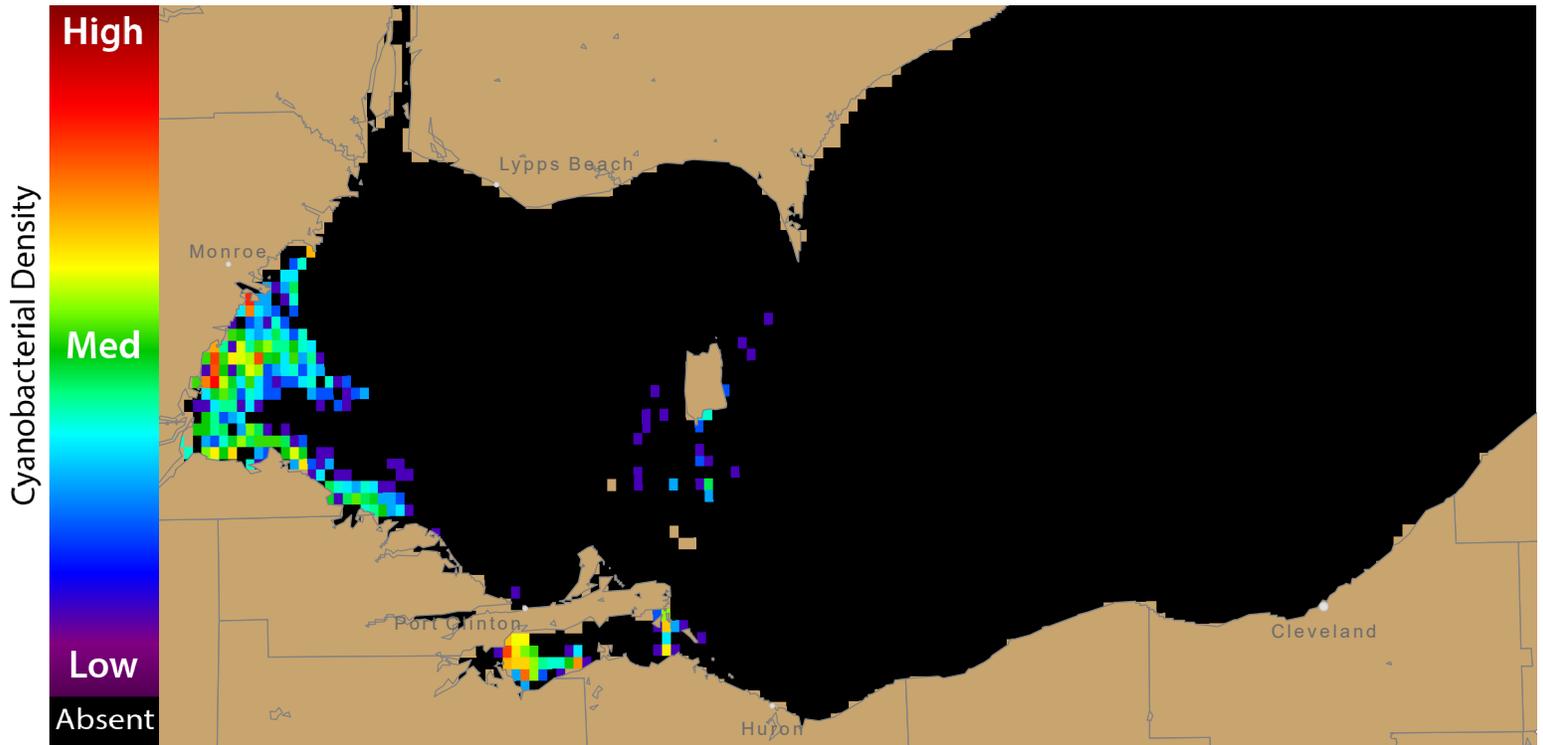
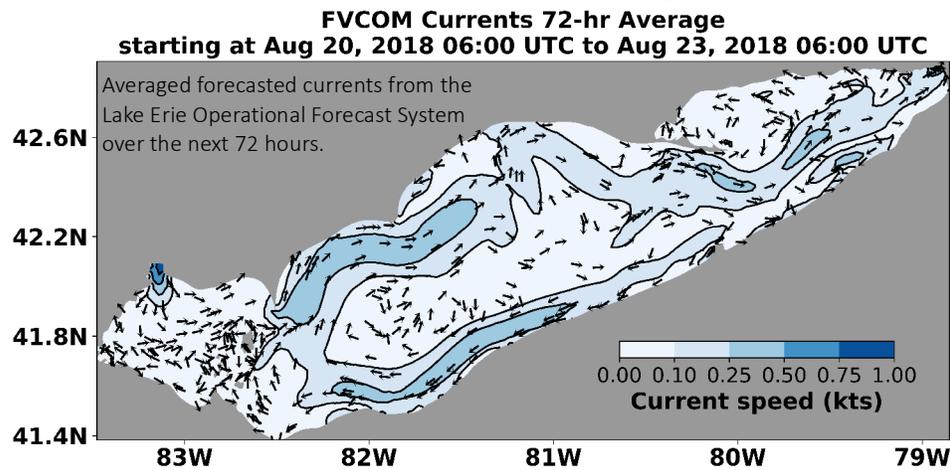


Figure 4. Forecast position of bloom for 23 August, 2018 using LEOFS modelled currents to move the bloom from the 18 August, 2018



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