



Lake Erie Harmful Algal Bloom Bulletin

05 September, 2019, Bulletin 20

Analysis

The *Microcystis* cyanobacteria bloom continues in the western basin of Lake Erie. Recent satellite imagery has been obscured by clouds, limiting analysis along the Michigan coast. MODIS imagery from 9/4 shows the bloom present in Maumee Bay, east along the Ohio coast to the Marblehead Peninsula, and offshore to- and up to 19 miles southeast of Pelee Island. Observed conditions (9/3-5) promoted mixing of surface bloom concentrations. Measured toxin concentrations are reducing and below recreational thresholds 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. No other blooms are present in Lake Erie.

Forecasts

Winds (3-8 kn) forecast today through Monday (9/5-9) will promote periods of mixing Saturday and Sunday (9/7-8) and net southwest transport of surface *Microcystis* concentrations. -Keeney, Jima

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.

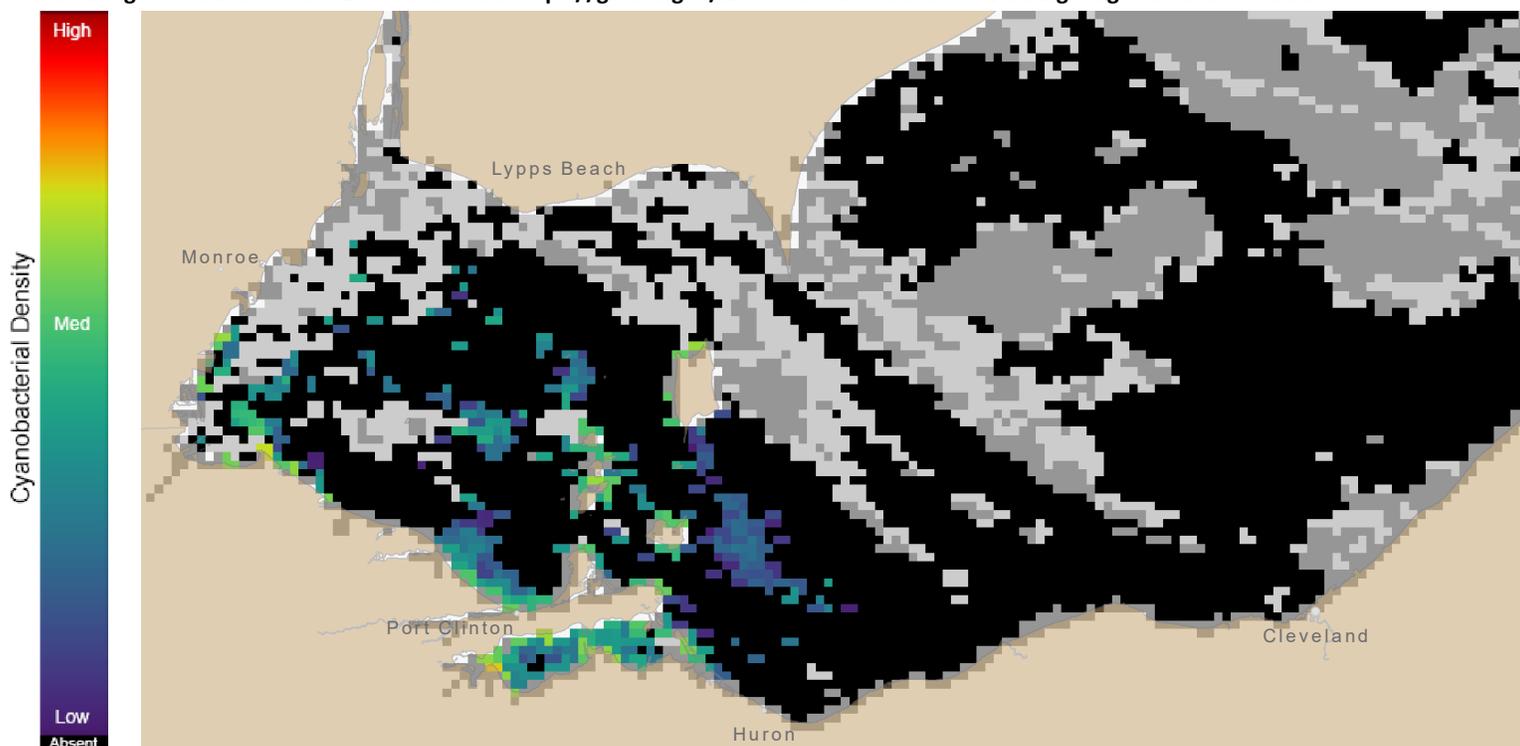


Figure 1. Cyanobacterial Index from NASA MODIS-Terra data collected 04 September, 2019 at 11:17 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

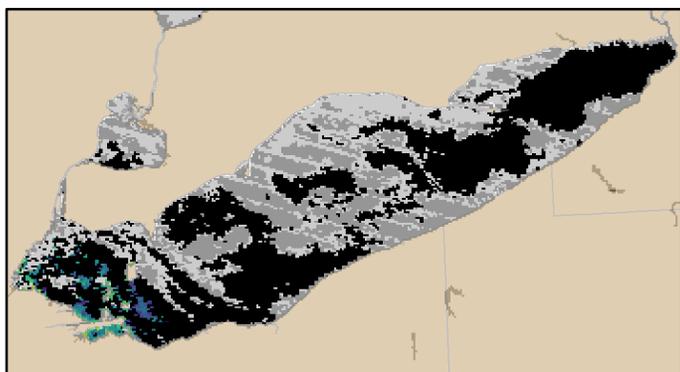
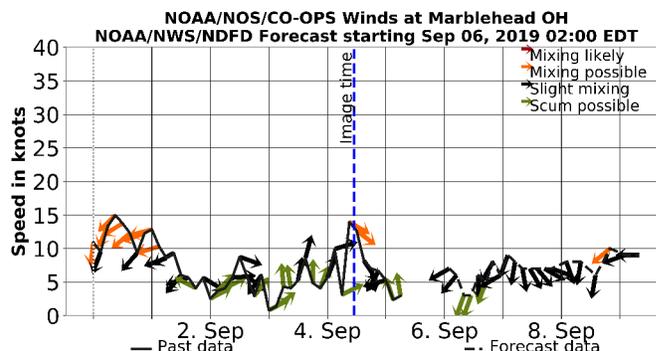


Figure 2. Cyanobacterial Index from NASA MODIS-Terra data collected 04 September, 2019 at 11:17.



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>

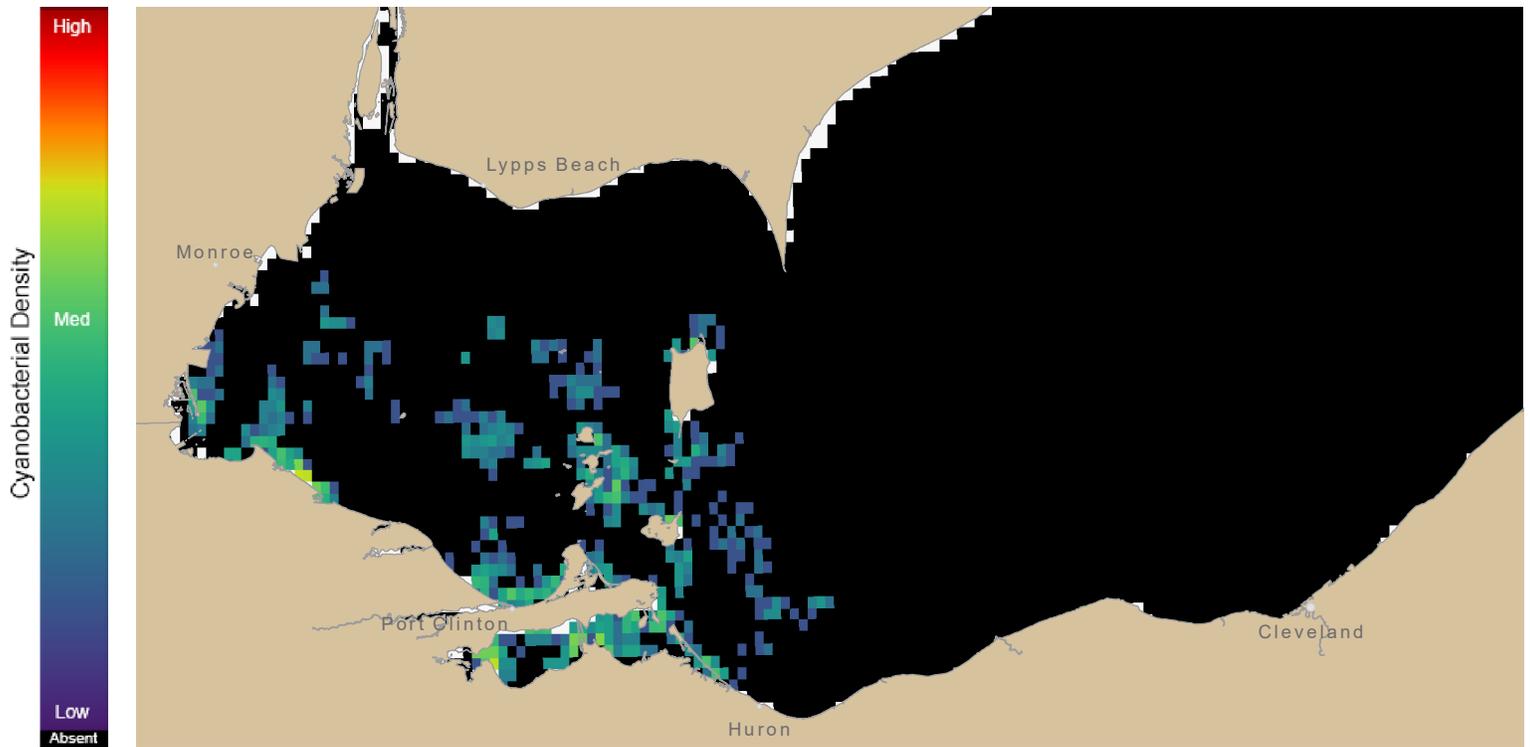


Figure 3. Nowcast position of bloom for 05 September, 2019 using LEOFS modelled currents to move the bloom from the 04 September,

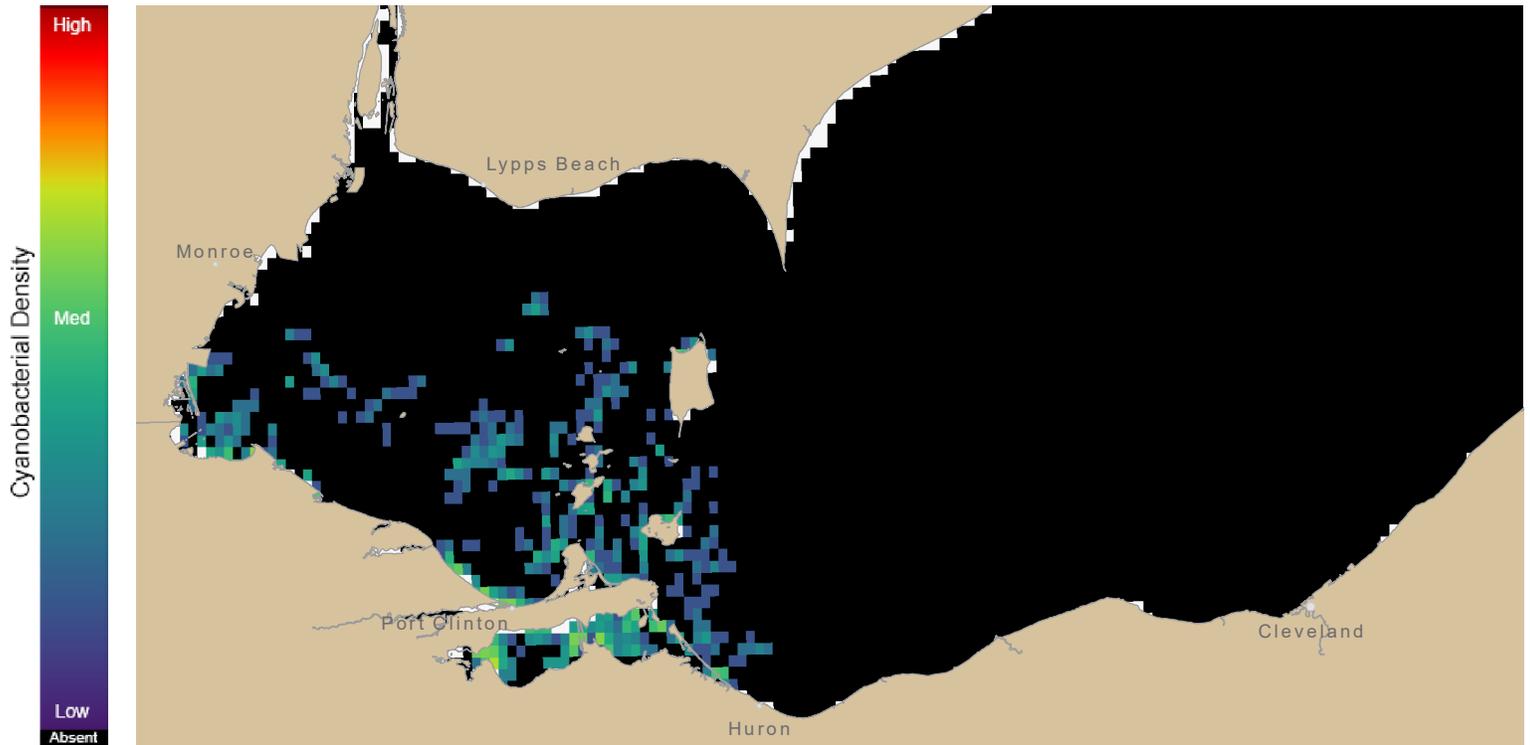
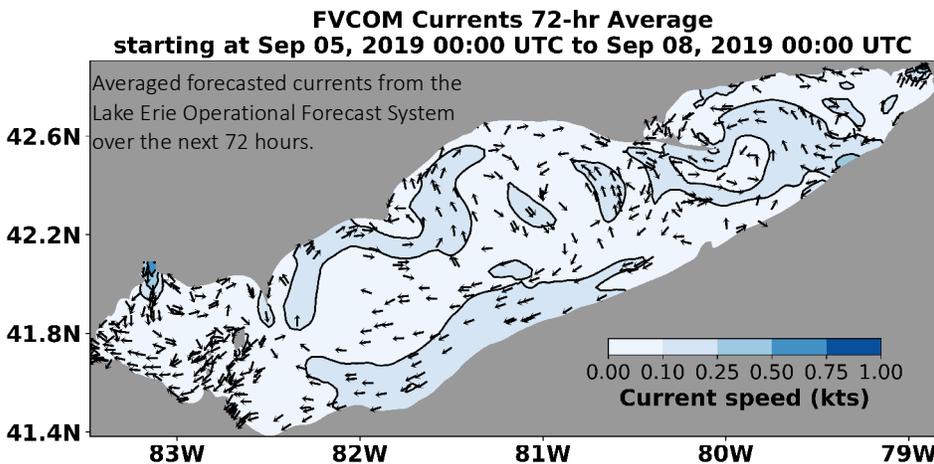


Figure 4. Forecast position of bloom for 08 September, 2019 using LEOFS modelled currents to move the bloom from the 04 September,



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