



# Lake Erie Harmful Algal Bloom Bulletin

12 September, 2019, Bulletin 22

## Analysis

The *Microcystis* cyanobacteria bloom continues in the western basin of Lake Erie. Observed winds (9/9-12) caused mixing that reduced surface concentrations. In recent satellite imagery (9/11), the *Microcystis* bloom is detectable in low concentrations in the western basin along Michigan coast extending up to 6 miles offshore west of West Sister Island and up to 5 miles east of Pelee Island. Measured toxin concentrations have decreased since last week and are below the detection limit in most of the sampling locations. The persistent cyanobacteria bloom in Sandusky Bay continues

## Forecasts

Winds (6-20 kn) forecast today through Monday (9/12-16) will promote mixing and eastward transport of surface *Microcystis* concentrations. -Jima, 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.

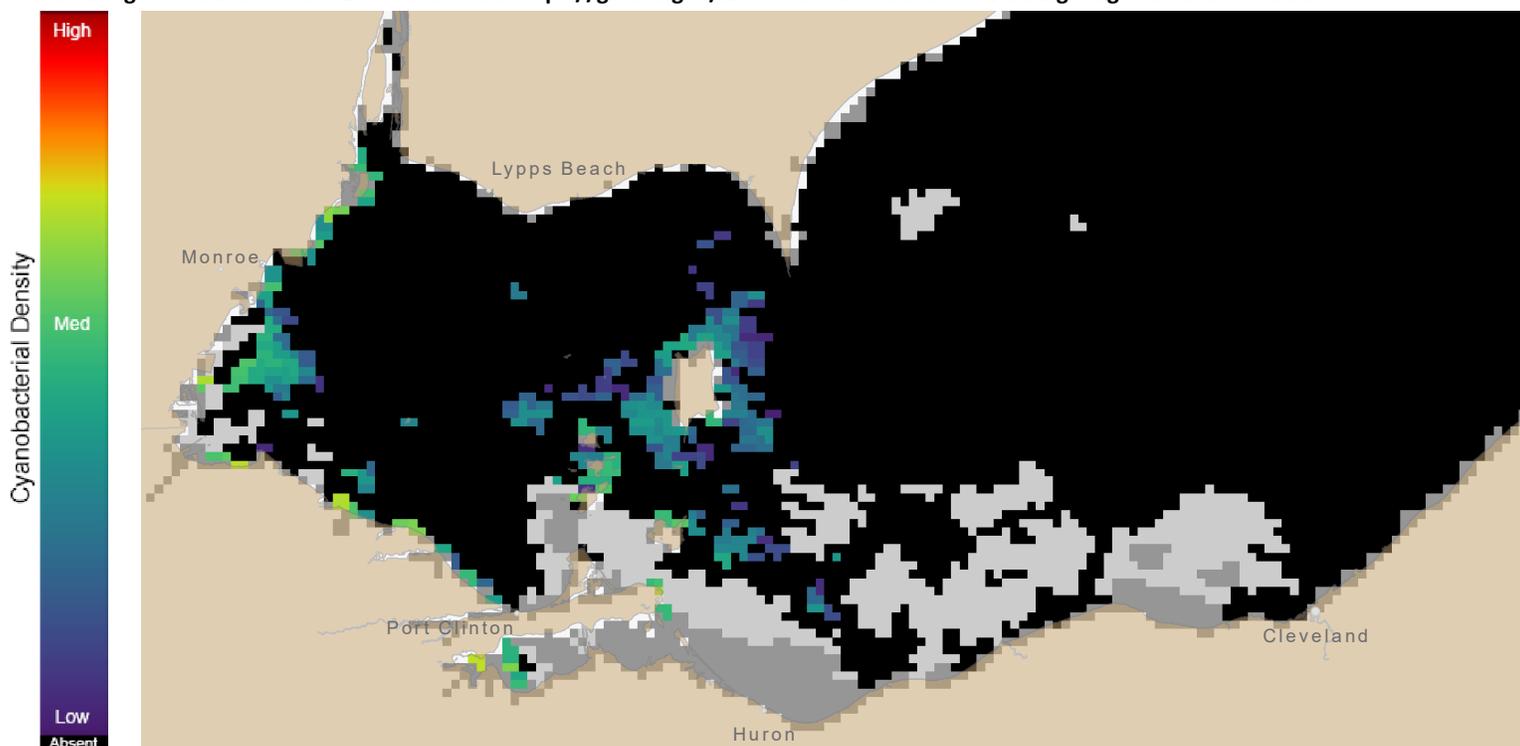


Figure 1. Cyanobacterial Index from NASA MODIS-Terra data collected 11 September, 2019 at 11:23 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

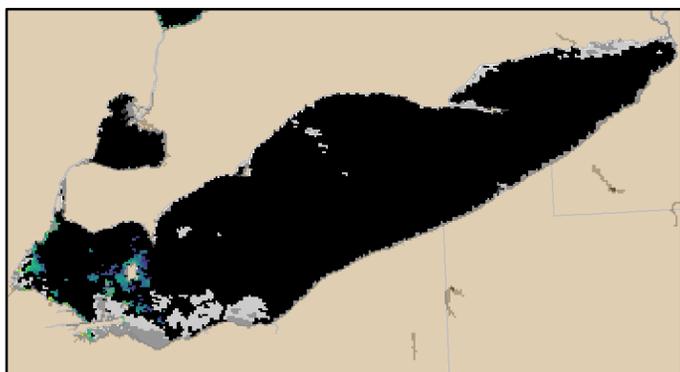
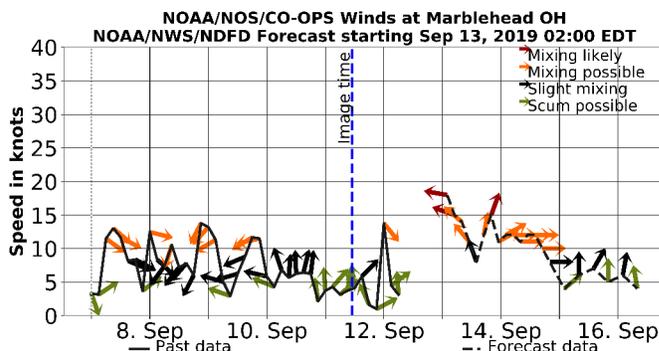


Figure 2. Cyanobacterial Index from NASA MODIS-Terra data collected 11 September, 2019 at 11:23.



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>

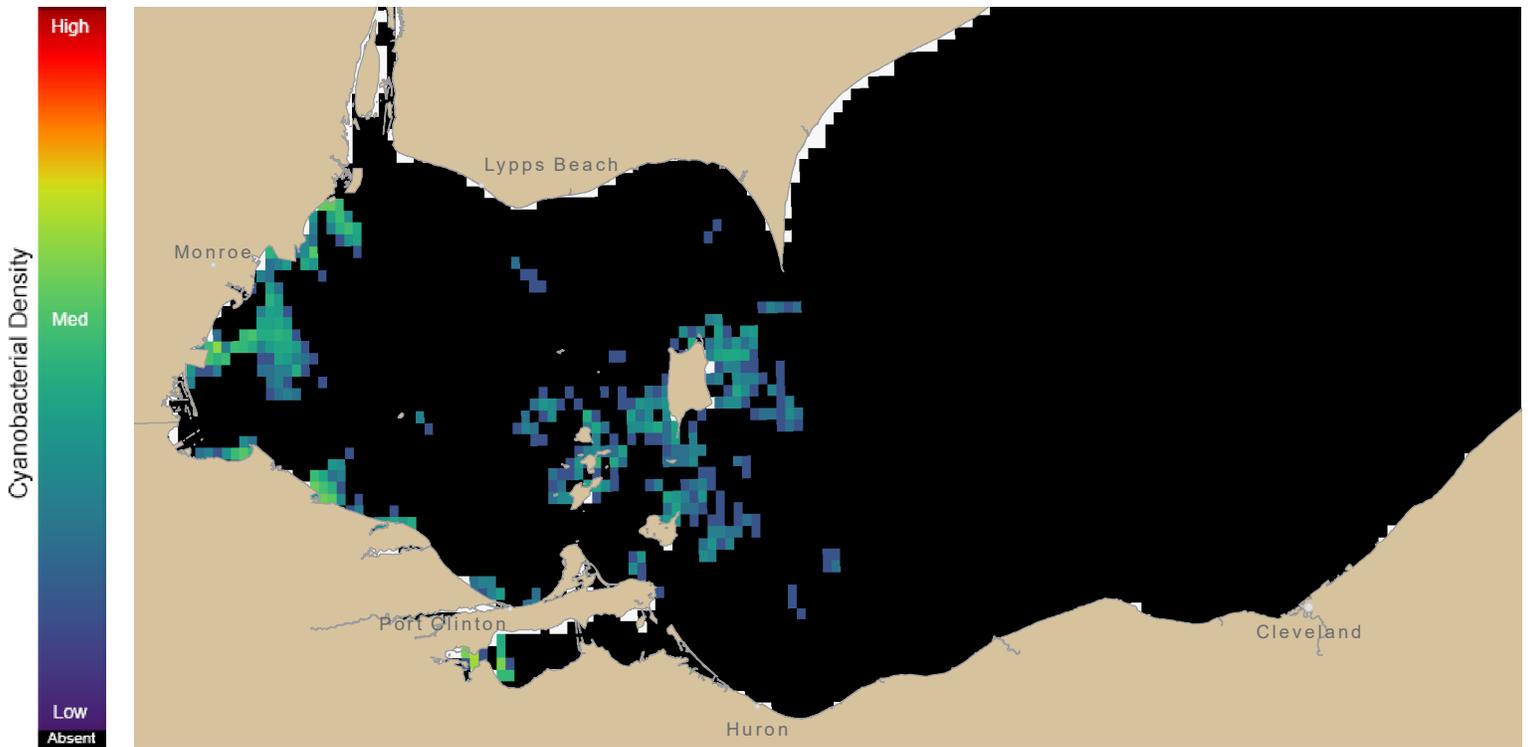


Figure 3. Nowcast position of bloom for 12 September, 2019 using LEOFS modelled currents to move the bloom from the 11 September,

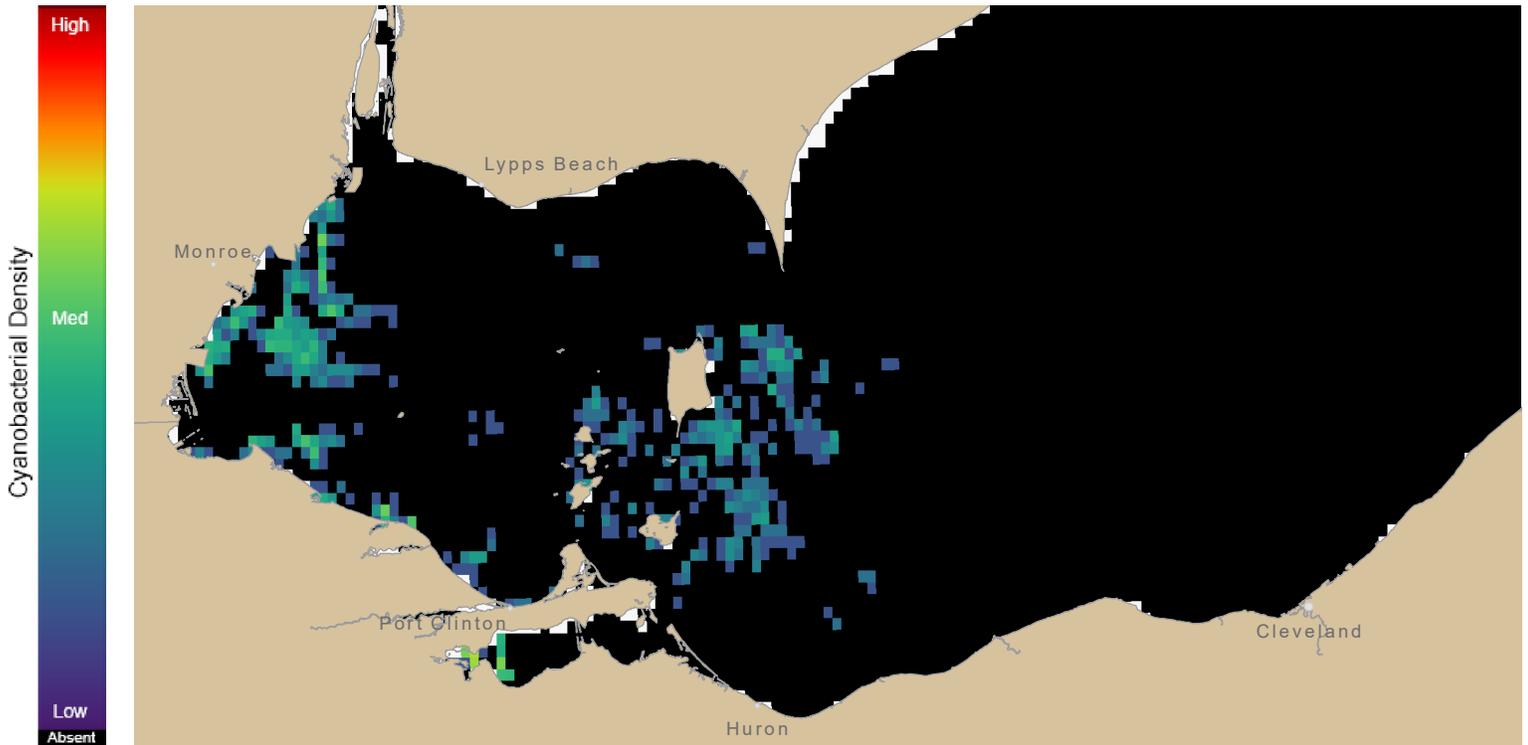
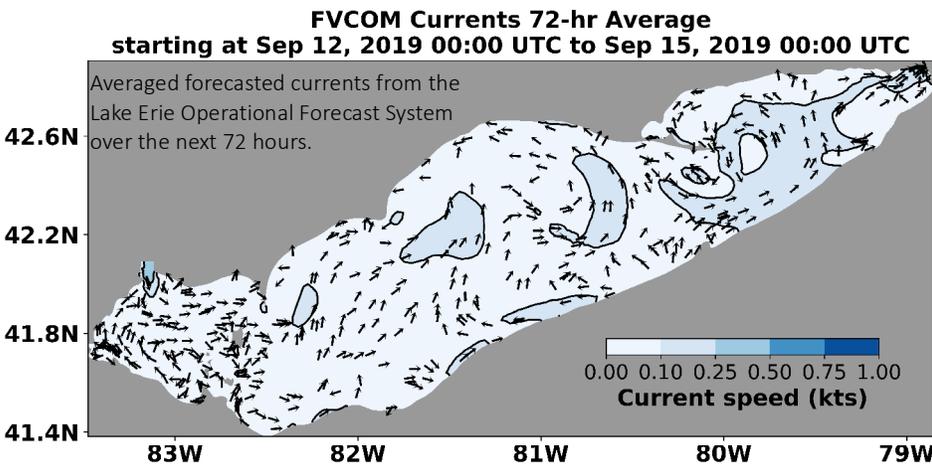


Figure 4. Forecast position of bloom for 15 September, 2019 using LEOFS modelled currents to move the bloom from the 11 September,



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