



Lake Erie Harmful Algal Bloom Bulletin

09 August, 2018, Bulletin 15

Analysis

The *Microcystis* cyanobacteria bloom continues in the western basin. Recent satellite imagery (8/8) is mostly obscured by clouds, limiting analysis. The bloom is still present along the Michigan coast and extends west to the Ottawa National Wildlife Refuge. Observed winds (8/6-9) lead to mixing of surface *Microcystis* concentrations. Measured toxin concentrations were detected up to 3 miles offshore Magee Marsh Wildlife area, but remained below detectable limits further east. Toxin concentrations 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 (5-7 kn) forecast today (8/9) will promote scum formation in areas of high *Microcystis* concentrations. Winds (5-9 kn) forecast Friday through Monday may lead to slight mixing of surface *Microcystis* concentrations. Southeast transport of surface *Microcystis* concentrations is predicted. Partial cloud coverage is forecast through Monday (8/9-13). --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.

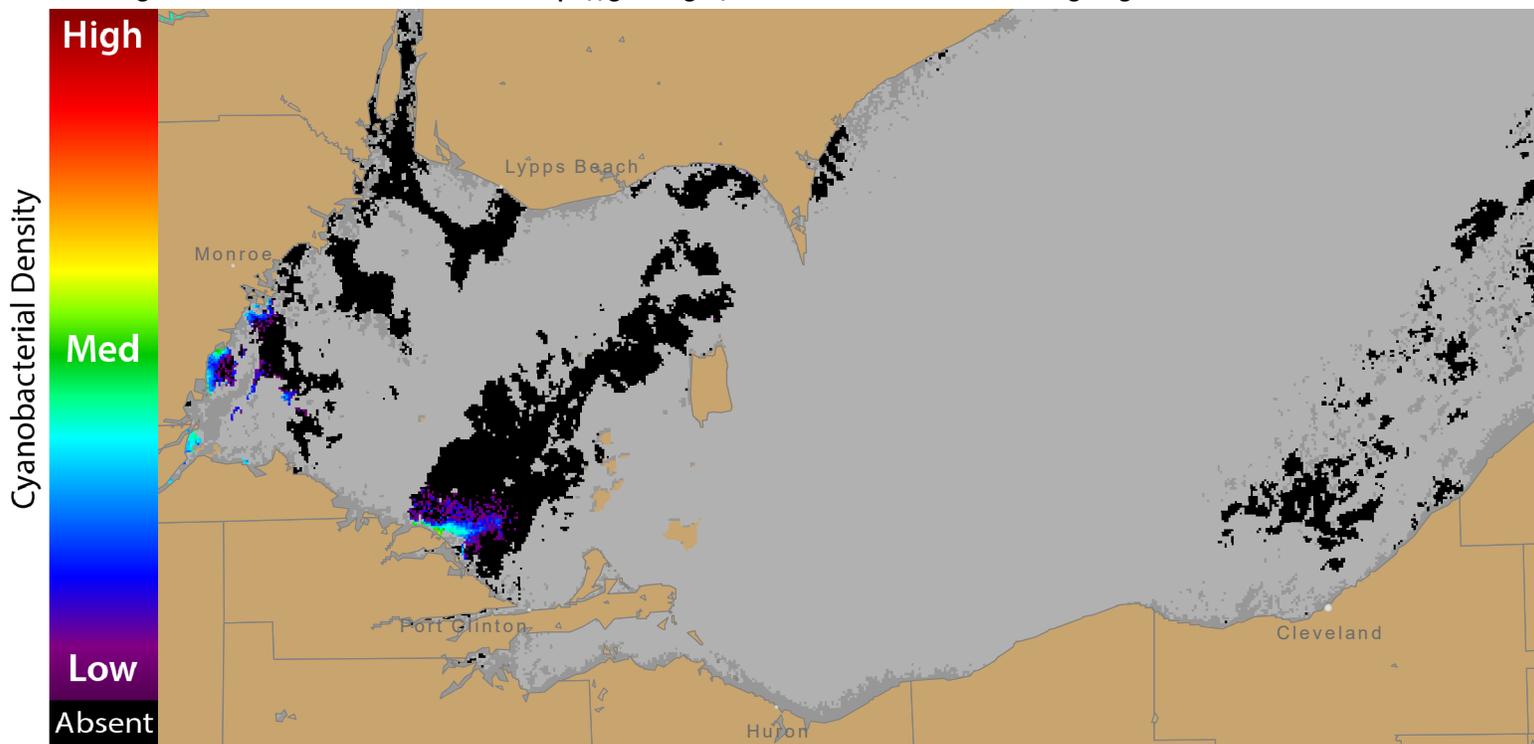


Figure 1. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 08 August, 2018 at 12:01 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/L

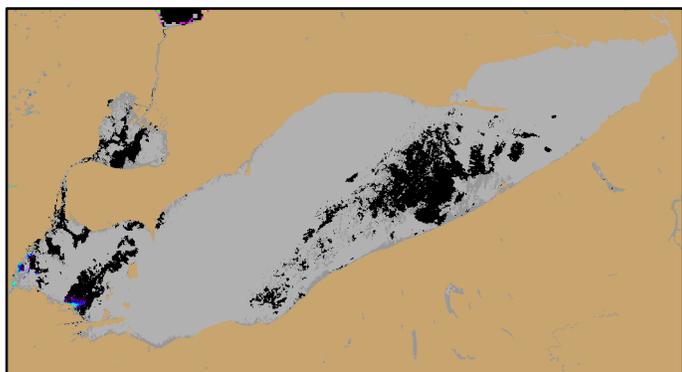
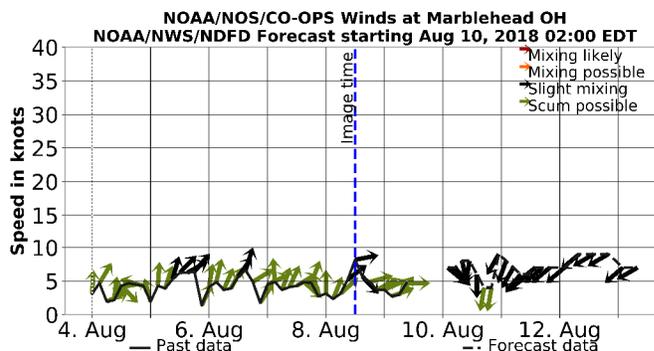


Figure 2. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 08 August, 2018 at 12:01.



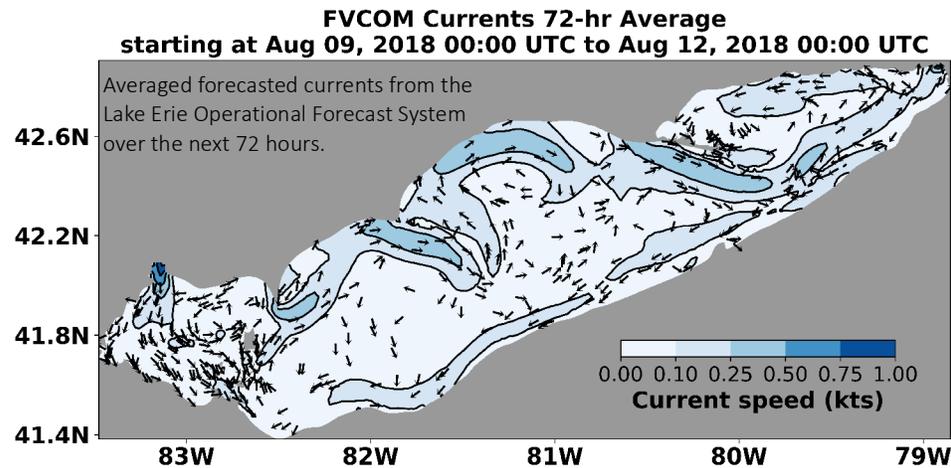
Wind speed and direction from Marblehead, OH. Blooms mix through the water column at wind speeds greater than 15 knots (or 7.7 m/s).



Figure 3. Nowcast position of bloom for 09 August, 2018 using LEOFS modelled currents to move the bloom from the 08 August, 2018



Figure 4. Forecast position of bloom for 12 August, 2018 using LEOFS modelled currents to move the bloom from the 08 August, 2018



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