



Lake Erie Harmful Algal Bloom Bulletin

21 September, 2017, Bulletin 21

The *Microcystis* cyanobacteria bloom continues in the western basin from Maumee Bay east into the central basin, and extending north towards the Ontario coast. Observed winds since Monday (9/18-21) caused an increase in surface concentrations. Scums were visible extending from Maumee Bay northeast to the Ontario coast. Measured toxin concentrations are below recreational thresholds throughout most of the bloom extent, but concentrations can exceed the threshold within Maumee Bay and west of the Islands where the bloom is most dense (appearing green from a boat).

Forecast winds (2-7 kn) today through Sunday (9/21-24) may increase the potential for scum formation and northerly transport of remaining *Microcystis* concentrations. The water temperature is approaching or below 68°F (20°C) throughout the western basin, limiting the growth of *Microcystis* concentrations.

Please check Ohio EPA's site on harmful algal blooms for safety information: <http://epa.ohio.gov/habalgae.aspx>. Keep your pets and yourself out of the water in areas where scum is forming. NOAA's GLERL provides additional HAB data: https://www.glerl.noaa.gov/res/HABs_and_Hypoxia. The persistent cyanobacteria bloom in Sandusky Bay continues. --Ludema, Davis

The images below are "GeoPDF". To see the longitude and latitude under your cursor, select "Tools > Analyze > Geospatial Location Tool".

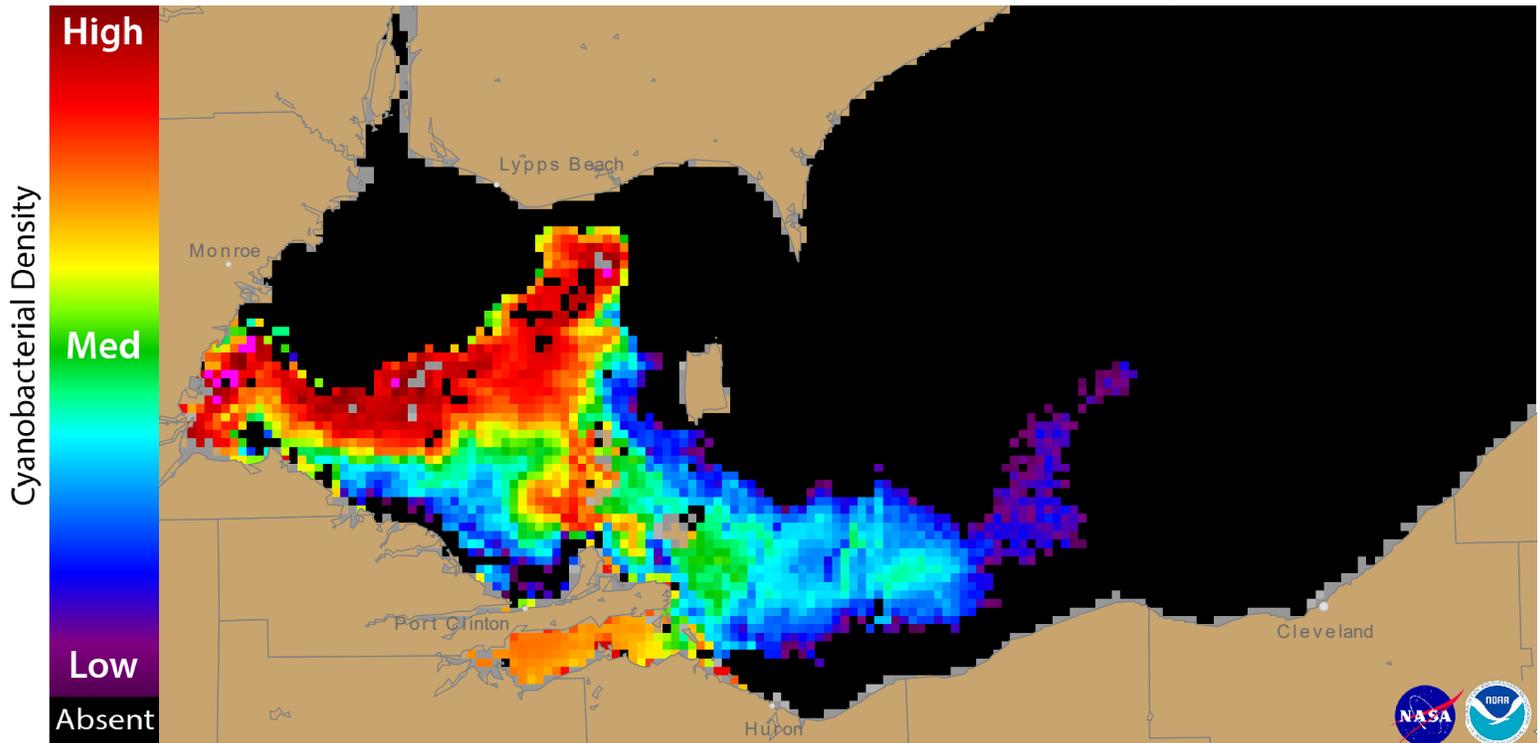


Figure 1. Cyanobacterial Index from NASA MODIS-Terra & Aqua data collected 20 September, 2017 at 12:20 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

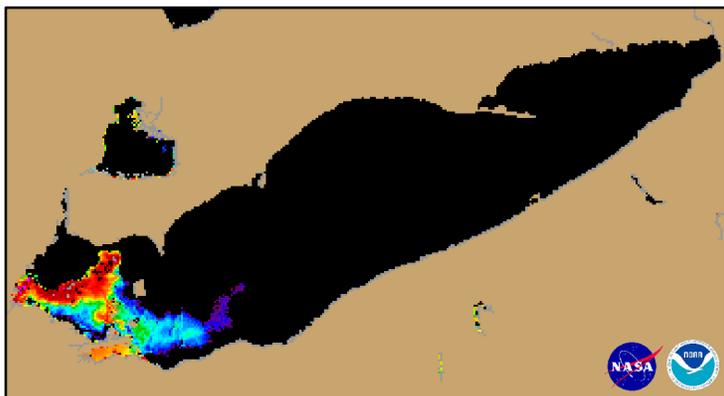
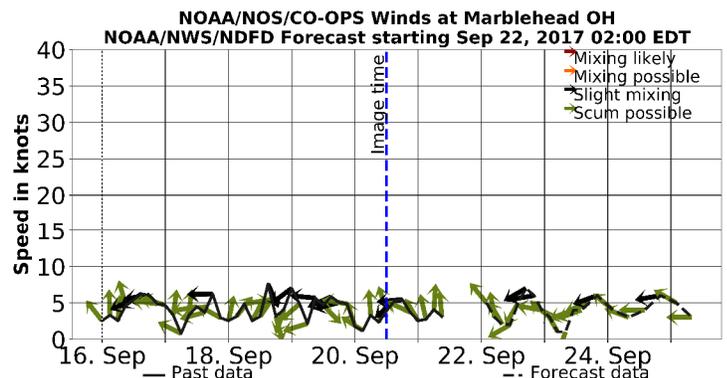


Figure 2. Cyanobacterial Index from NASA MODIS-Terra & Aqua data collected 20 September, 2017 at 12:20.



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).

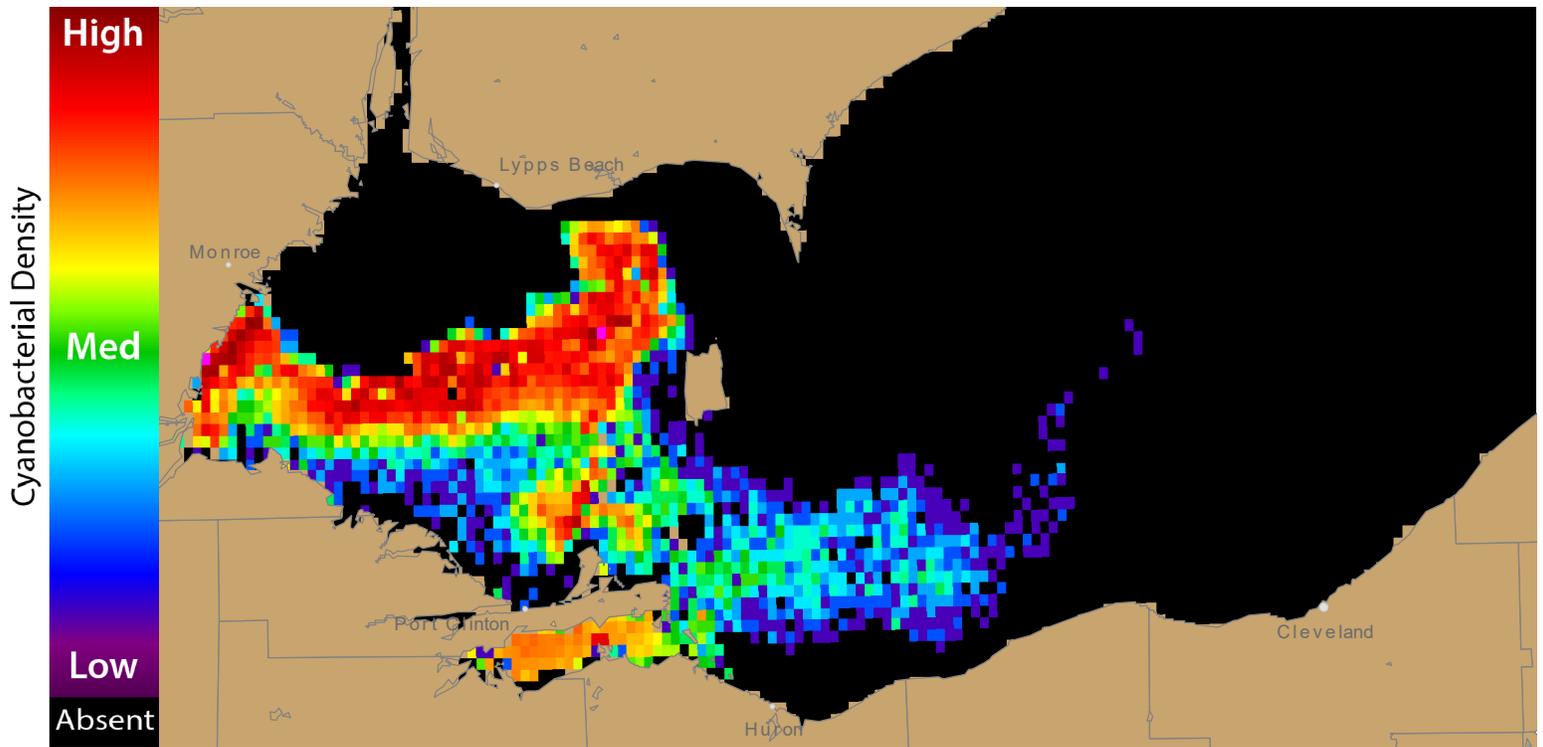


Figure 3. Nowcast position of bloom for 21 September, 2017 using GLFS modelled currents to move the bloom from the 20 September, 2017

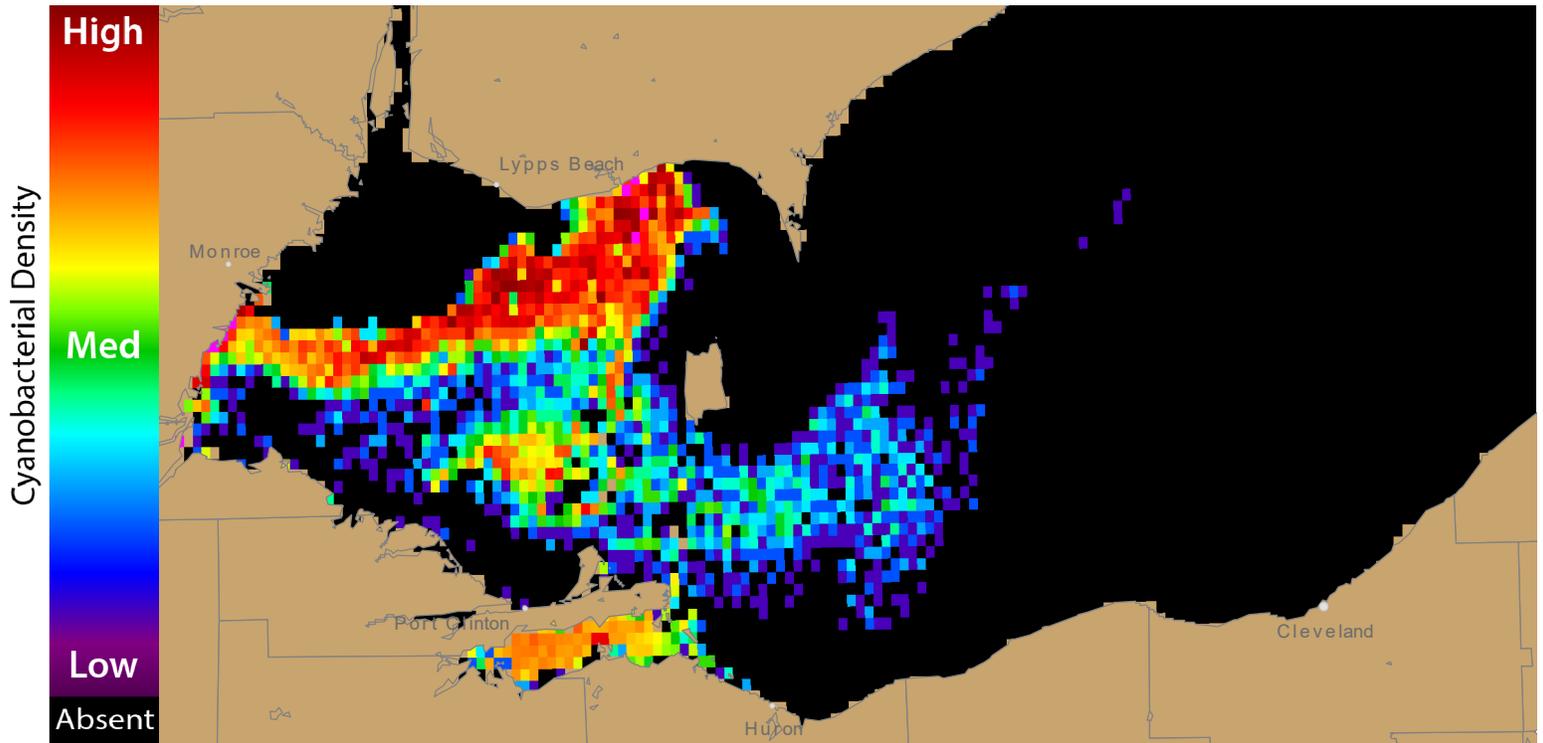
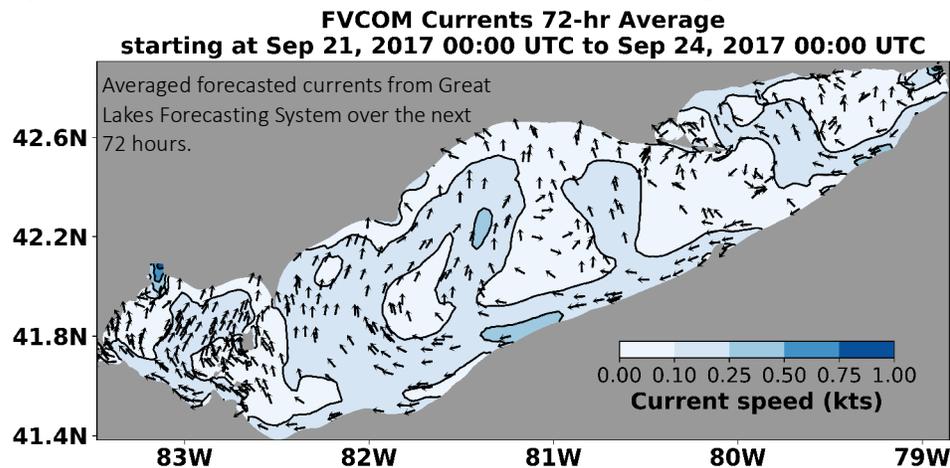


Figure 4. Forecast position of bloom for 24 September, 2017 using GLFS modelled currents to move the bloom from the 20 September, 2017



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