



Experimental Lake Erie Harmful Algal Bloom Bulletin

National Centers for Coastal Ocean Science and Great Lakes Environmental Research Laboratory

03 September, 2015, Bulletin 16

The *Microcystis* cyanobacteria bloom west of West Sister Island, while still of relatively high concentration and area, has continued to decrease in toxicity. Scum areas remain a significant risk.

Moderate eastern winds are expected the next two days, turning southerly over the weekend. Calm winds will increase the likelihood of scum development in areas of moderate to high concentration. Transport is predicted to be minimal through Sunday (Sept 6). The persistent bloom in Sandusky Bay continues. No other blooms are evident in the central and eastern basins.

Please check for updates on Ohio State Parks at Ohio EPA's site, <http://epa.ohio.gov/habalgae.aspx>. Keep your pets and yourself out of the water in areas where scum is forming.

-Dupuy, Stumpf

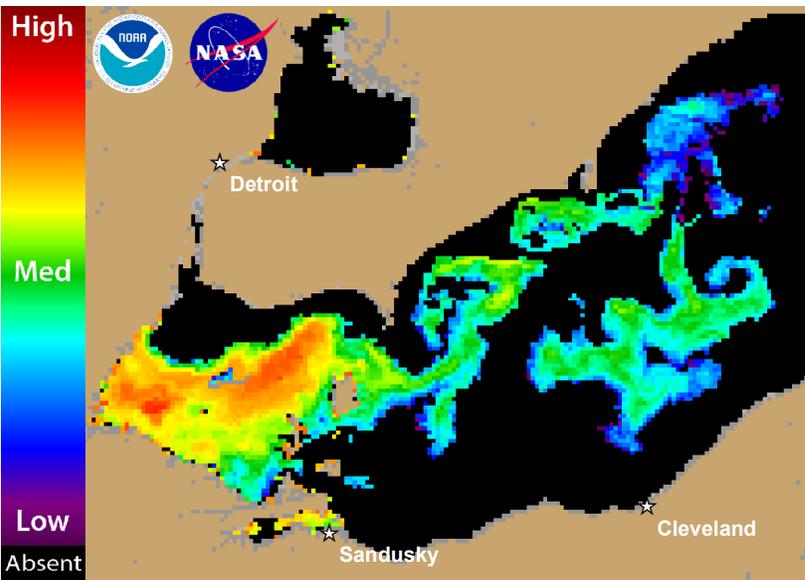


Figure 1. Cyanobacterial Index from NASA's MODIS- Terra data collected 01 & 02 September, 2015 at 12:05 EST. Grey indicates clouds or missing data. Black represents no cyanobacteria detected. Colored pixels indicate the presence of cyanobacteria. Cooler colors (blue and purple) indicate low concentrations and warmer colors (red, orange, and yellow) indicate high concentrations. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

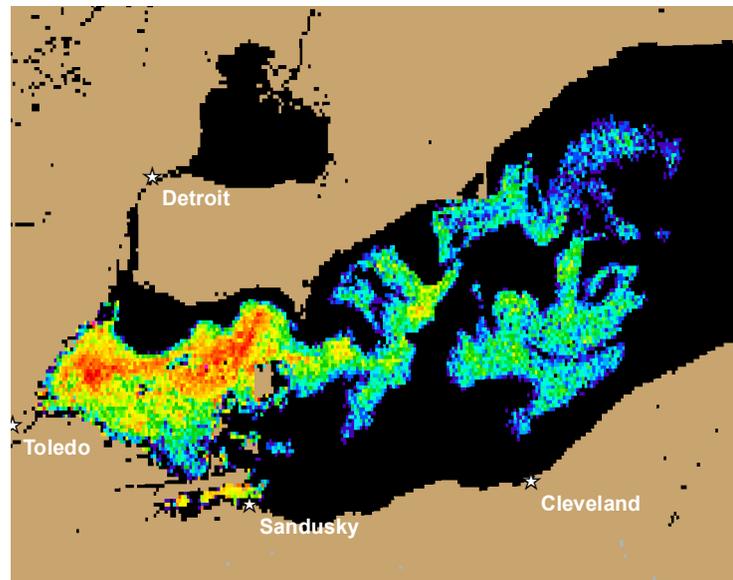


Figure 2. Nowcast position of bloom for 02 September, 2015 using GLCFS modeled currents to move the bloom from the 01/02 September, 2015 image.

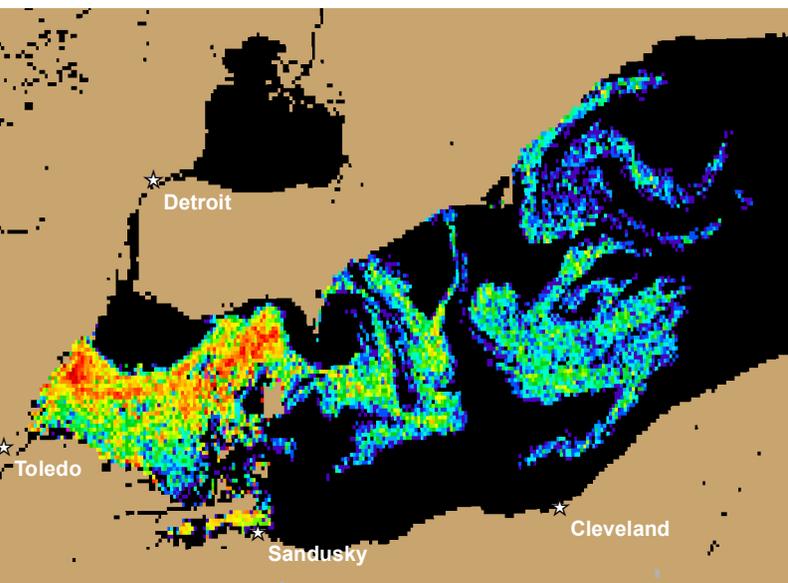
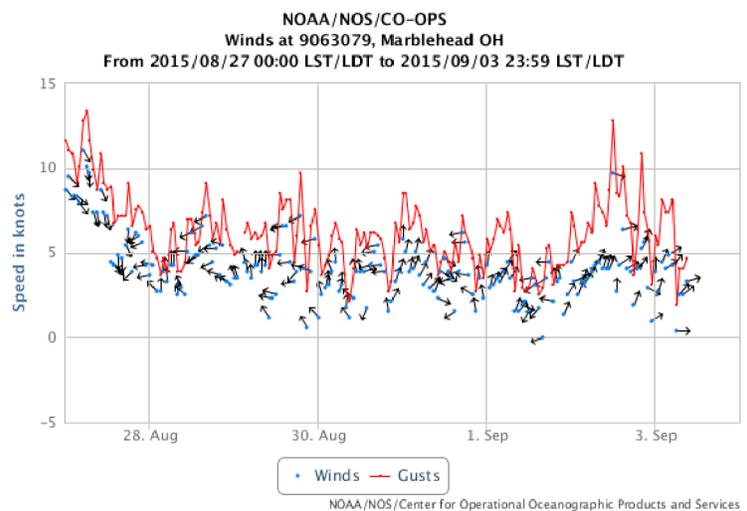
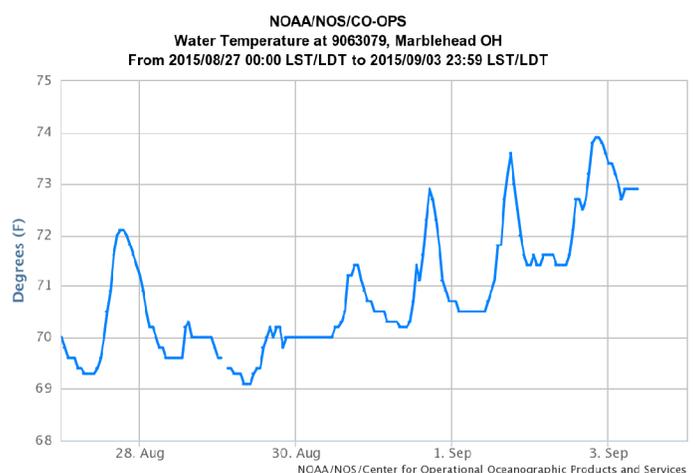


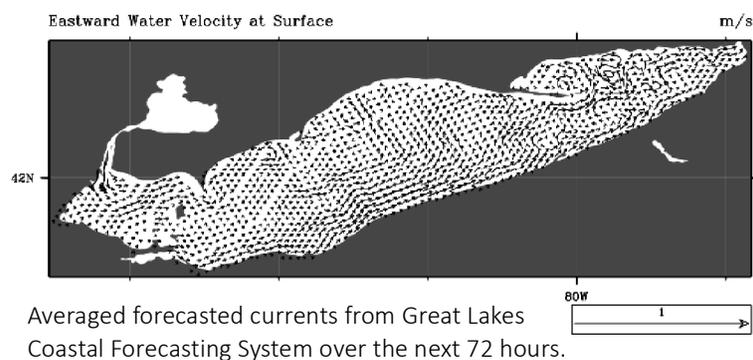
Figure 3. Forecast position of bloom for 06 September, 2015 using GLCFS modeled currents to move the bloom from the 01/02 September, 2015 image.



Wind Speed, Gusts and Direction from Marblehead, OH. From: NOAA/Center for Operational Oceanographic Products and Services (CO-OPS). Note: 1 knot = 0.51444 m/s. Blooms mix through the water column at wind speeds greater than 7.7 m/sec (~ 15 knots).



Water Temperature from Marblehead, OH. From: NOAA/Center for Operational Oceanographic Products and Services (CO-OPS).



Supported by the NASA Applied Sciences Health and Air Quality Program. Wind forecasts derived from NOAA/National Weather Service in Cleveland.

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