Experimental
Lake Erie Harmful Algal Bloom Bulletin
2011-010
11 August 2011
National Ocean Service
Great Lakes Environmental Research Laboratory
Last bulletin: 04 August 2011

Conditions: A confirmed *Microcystis* bloom persists in Western Lake Erie.

Analysis: A large *Microcystis* bloom remains in Western Lake Erie. Models indicate an east-southeast transport that is likely to affect the Bass and Pelee Islands. Windy conditions over the past three days have likely caused subsurface mixing of the bloom. Water temperatures remain high and conducive to bloom intensification. Due to cloudy weather this week, the nowcast and forecast imagery do not represent the full possible extent of the bloom.
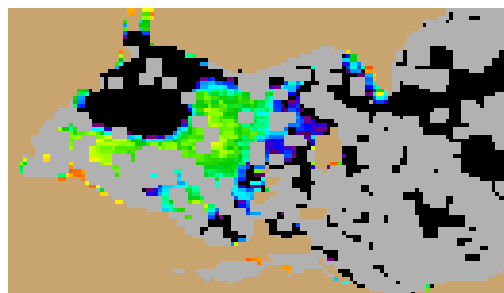
-Briggs

Figure 1. MERIS image from the European Space Agency. Imagery shows the spectral shape at 681 nm from August 09, where colored pixels indicate the likelihood of the last known position of the *Microcystis* spp. bloom (with red being the highest concentration). *Microcystis* spp. abundance data from shown as white squares (very high), circles (high), diamonds (medium), triangles (low) , + (very low) and X (not present). Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.
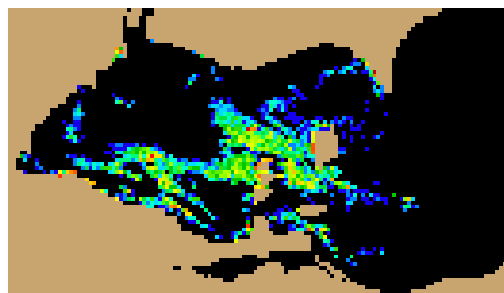

Figure 2. Nowcast position of *Microcystis* spp. bloom for August 11 using GLCFS modeled currents to move the bloom from the August 09 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.
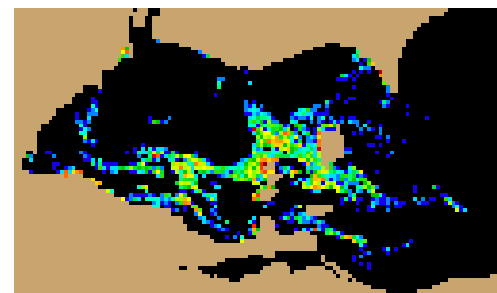

Figure 3. Forecast position of *Microcystis* spp. for August 14 using GLCFS modeled currents to move the bloom from August 09 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

Please note:

- MERIS imagery was distributed by the NOAA CoastWatch Program and provided by the European Space Agency

- Cell counts were collected by the Great Lakes Environmental Research Laboratory

- The wind data is available through the National Data Buoy Center and the National Weather Service

- Modeled currents were provided through the Great Lakes Coastal Forecasting System

Average wind stress at SBIO1 - South Bass Island

NDBC

NDFD

Image date

Wind Stress (Pa)

Date (GMT)

Average water temperature at 45005 - W Erie 28NM Northwest of Clevelan

NDBC

Image date

Water temperature (C)

Date (GMT)