

## Experimental Lake Erie Harmful Algal Bloom Bulletin

2009-010 24 September 2009 National Ocean Service Great Lakes Environmental Research Laboratory Last bulletin: 17 September 2009 *Conditions:* A *Microcystis* spp. bloom is present in much of the western basin of Lake Erie. A mixed cyanobacterial bloom is also present in Sandusky Bay.

*Analysis:* Imagery is 6 days old, as recent imagery has been cloudy. The bloom is still present in the western basin of the lake. It is expected to persist until water temperatures drop below 15 degrees C. If there is a better image tomorrow, the forecast will be reissued.

-Wynne, Neff



Figure 1. MERIS image from the European Space Agency. Imagery shows the spectral shape at 681 nm from September 18, 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 September 22 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 September 24 using GLCFS modeled currents to move the bloom from the September 18 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 September 27 using GLCFS modeled currents to move the bloom from September 18 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

Please note:

<sup>-</sup> MERIS imagery was distributed by the NOAA CoastWatch Program and provided by the European Space Agency

<sup>-</sup> Cell counts were collected by the Great Lakes Environmental Research Laboratory

<sup>-</sup> The wind data is available through the National Data Buoy Center and the National Weather Service

<sup>-</sup> Modeled currents were provided through the Great Lakes Coastal Forecasting System

