**BAO Report**

**July 2014**

**Algal blooms returning**

The Sandusky Register

Harmful algal blooms in western Lake Erie have become so bad that Stone Laboratory, a freshwater research station on Gibraltar Island, has begun issuing annual forecasts.  At Thursday’s third annual press conference to announce the forecast, scientists predicted this year’s late summer HAB of toxic blue-green algae in the lake’s Western Basin will be “significant,” but not as large as in 2013 or 2011. The bloom in 2011 set a record for its size.  While the prediction for this year is as accurate as the algae experts could make it, it could be wrong.   Last year’s harmful algal bloom was much worse than predicted in the forecast, and the scientists at Thursday’s press conference spent much of their time explaining why.  This year’s algal bloom should be about a “5,” on a scale that makes the record-setting HAB in 2011 a “10,” and last year’s an “8,” said Rick Stumpf, a HAB model and forecasting expert with the National Oceanic and Atmospheric Administration.  It’s possible the bloom could be larger than forecast, he said.  “I don’t anticipate a milder bloom” he said.  The forecast, as in past years, is based upon the amount of phosphorus being put in the lake, which is based largely on the amount of rain. Phosphorus is believed to be the main factor in determining the growth of the microcystis bacteria blamed for producing harmful algal blooms, the scientists said.  Last year’s forecast was off because after it was issued, July turned out to be unusually wet, Stumpf said. The accuracy of this year’s forecast may depend in part on whether this July turns out to be a normal month for rainfall, he said.  Unusually high nitrogen levels also helped make last year’s bloom worse than expected, said Justin Chaffin, a Stone Lab algae expert. While phosphorus is the main predictor of HABs, high nitrogen can affect the bloom and its toxicity.  Last year’s harmful algal bloom affected water treatment plants located in Maumee Bay. Carroll Township had to shut down its water plant for several days, and the City of Toledo came close to having to warn its customers not to drink the water, said Tom Bridgeman, an algae expert at the University of Toledo.  During last year’s algal bloom, Paul Pacholski, president of the Lake Erie Charter Boat Association, said he was able to take his own boat out of range of the bloom so his customers weren’t affected.  But he said the algal bloom hammered head boats in Port Clinton, which could not travel as far and lost “hundreds of thousands of dollars” worth of business, he said. Head boats are larger boats that transport larger groups of anglers and accommodate fishermen who can’t afford to charter a boat.  Jerry Tucholski, who runs a head boat in Port Clinton, said when the algal bloom reached a climax in September 2013, business was terrible.  He said on some trips, fishermen had to dip a fish into the water several times just to get the algae off and see what kind of fish they had caught.  “It’s embarrassing” he said.

Want to keep track of this year’s harmful algal bloom in western Lake Erie? The National Oceanic and Atmospheric Administration, a federal agency, issues a weekly email bulletin that tracks the progress of the bloom and offers updated forecasts.  Anyone can subscribe to the bulletin.  Each bulletin includes a satellite photograph. The bulletin issued Thursday said, “There is no reported Harmful Algal Bloom at this time. It is unlikely that one will develop within the next week.” To find the page, and to sign up for emails, go on a search engine (such as Google) using the terms “NOAA Lake Erie algal bloom forecast” (without using the quotation marks.)