Western Lake Erie Harmful Algal Bloom Early Season Projection

09 June 2020, Projection 05

The severity of the western Lake Erie cyanobacterial harmful algal bloom (HAB) depends on input of bioavailable phosphorus from the Maumee River during the loading season (March 1-July 31). This product gives an estimate of potential bloom severity based on a combination of measurements and forecasts of river discharge and phosphorus loads from now into July. These projections will be updated weekly with new data and weather models through the end of June. A NOAA seasonal Lake Erie HAB Forecast will be issued on July 9th, using measured spring phosphorus loads.

The projection has not changed from last week. We continue to project that the bloom will be smaller than last year (severity of 7.5), with a likely severity between 3 and 5, and a potential severity of up to 6. We expect few substantial rainfall events over the next few weeks, although magnitude cannot be forecasted exactly. Slight changes in the projected range of bloom severity have resulted from better consideration of uncertainty in the bloom models. Any bloom that develops will change with time and move with the wind; we will provide information on the presence and location of the bloom throughout the summer.

Total bioavailable phosphorus (TBP) is the sum of dissolved phosphorus and the portion of particulate phosphorus available for HAB development. The TBP loads are projected based on Heidelberg University data, river forecasts from the National Weather Service Ohio River Forecast Center (through early July), and previous years to the end of July.

Stumpf, Noel (NOAA), Johnson (Heidelberg University) with assistance from Davenport and Tomlinson (NOAA).

For more information visit: http://www.ncwqr.org/ or http://coastalscience.noaa.gov/research/habs/forecasting/