Western Lake Erie Harmful Algal Bloom Early Season Projection
19 May 2020, Projection 02

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.

Heavy rain this week has changed the minimum expected bloom size, but it remains in the range we reported last week. We project that the bloom will be smaller than last year (2019), with a likely severity between 3 and 5. Uncertainty in the models and forecasts indicate a potential severity of up to 6 (less than 7.5 seen in 2019). The models include rain events that are expected through early June. There is still uncertainty in the projected maximum severity because of limitations in forecasting the exact location and amount of rainfall. As we add data over the next month, this uncertainty will decrease. 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.

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