The severity of the western Lake Erie cyanobacterial harmful algal bloom (HAB) is dependent on phosphorus inputs from March 1st through July 31st, henceforth called the loading season. This new product projects the bloom severity based on the combination of current measurements of discharge and phosphorus loading from the Maumee River for the season to date with historical records from past years to estimate the remainder of the loading season.

Based on data from March 1 to this week, the extensive severe blooms observed in 2011 and 2013 are not projected to occur this year. Earlier this spring had been relatively dry, resulting in less discharge and lower phosphorus loads into the western basin. Recent thunderstorms increased the loads, therefore increasing the potential bloom severity over the previous projection. University of Toledo has detected low concentrations of cyanobacteria near Maumee Bay, typical for June.

The uncertainty will decrease over time as the loading season progresses.

This experimental product involves the Maumee River phosphorus load data from Heidelberg University’s National Center for Water Quality Research and the western Lake Erie bloom severity models by NOAA’s National Center for Coastal Ocean Science.