Western Lake Erie HAB Seasonal Forecast

Summary: NOAA NCCOS and partners forecast a moderate to larger-than-moderate cyanobacterial harmful algal bloom (HAB) in western Lake Erie this summer, with a severity ~5 and a potential severity range between 4.5–6. We expect the bloom to be similar in severity to 2023 (severity of 5.3). There is a low, but potential, risk of a heavy rainfall event in the next few weeks that might exceed normal July rainfall and associated runoff. In this case, the bloom may reach or possibly exceed the high end of the expected severity range (severity as high as 7), which would be more similar to the 2022 bloom (severity of 6.8).

The severity is based on the quantity (biomass) of the bloom over a sustained 30 day period. The predicted bloom severity depends on input of measured and forecasted total bioavailable phosphorus (TBP) from the Maumee River for March 1–July 31, and uses forecasts of Maumee River discharge from the National Weather Service - Ohio River Forecast Center (through July) and phosphorus loads determined by the Heidelberg University National Center for Water Quality Research. Models used in the forecast are provided by NOAA's NCCOS, the University of Michigan, Stanford University and the Carnegie Institute for Science. An updated forecast will be provided in late July.

The bloom varies in size and location due to wind, with a bloom peak starting in August and continuing into September. While toxicity varies throughout the bloom, toxins often concentrate in surface scums during calm weather. People and pets should not swim in areas with scum. Information on the location and intensity of the bloom can be found at NOAA's Lake Erie Harmful Algal Bloom Forecast webpage. For additional information on safe recreation, please visit Ohio EPA's webpage on HABs.

For more information visit: coastalscience.noaa.gov/science-areas/habs/hab-forecasts/lake-erie/ or ncwqr.org/

Questions? Contact: hab@noaa.gov

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2024-06-27