Maryland Department of Natural Resources 2016 Chesapeake Bay Hypoxia Report -Year in Review

Dissolved oxygen conditions in Maryland's portion of the Chesapeake Bay mainstem were above average for September. The hypoxic water volume (areas below 2 mg/l oxygen) was approximately 0.58 cubic miles, which is above the monthly average of 0.38 cubic miles. Only one September monitoring cruise is conducted. Hypoxia generally dissipates in September, so the timing of the one and only cruise can greatly influence the result.

The summer got off to a promising start with well below average hypoxia in June, continuing into early July. River flows into the Chesapeake, as measured by the U.S. Geological Survey, have been at or below average for the past five years, resulting in less nutrient runoff, the primary cause for hypoxia.

Late July saw above average hypoxia. A prolonged heat wave, with air temperatures close to 100°F, resulted in warmer waters, which generally hold and mix less oxygen. Hypoxic volumes returned to average in August despite record high average air temperatures in much of the watershed. This could be seen as a positive result from reduced nutrient loads, brought about by management actions and favorable weather conditions.

Overall, the entire summer average was below the long-term average by about five percent. This concurs with a forecast in early summer by a group of university and federal scientists which predicted a slightly below average hypoxic zone. That same forecast predicted a smaller than average anoxic zone, when in fact monitoring has not detected any anoxia since 2014.

Maryland water quality monitoring data can now be explored from the new and improved Eyes on the Bay website: *eyesonthebay.net*. Real-time and historic data are available with charting and mapping visualizations. Visit us on the web, and follow us on Twitter (@eyesonthebay) and Facebook.

For more information:

• Maryland Department of Natural Resources - Our Waters Page. dnr.maryland.gov/waters

• Press Release for the 2016 Chesapeake Bay Hypoxic Zone Forecast. 1.usa.gov/28QHmEc

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Crabs, fish, oysters and other creatures in the Chesapeake Bay require oxygen to survive. Scientists and natural resource managers study the volume and duration of bay hypoxia to determine possible impacts to bay life.

Each year (June-September), the Maryland Department of Natural Resources computes these volumes from data collected by Maryland and Virginia monitoring teams. Data collection is funded by these states and the Environmental Protection Agency's Chesapeake Bay Program. Bay monitoring continues year-round and hypoxia reporting will resume in June 2017.





Larry Hogan, Governor Mark J. Belton, Secretary