

# Maryland Department of Natural Resources

## 2015 Chesapeake Bay Hypoxia Report

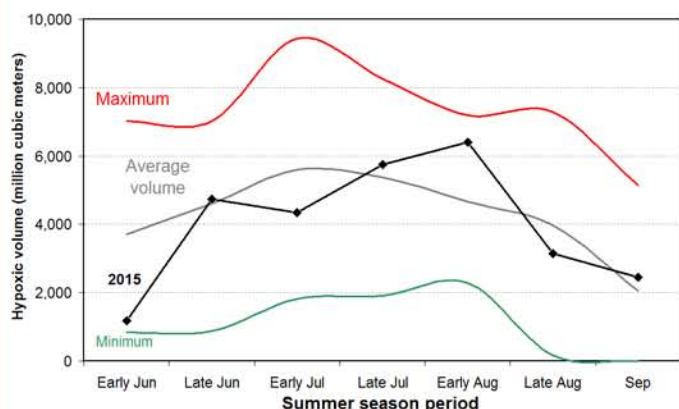


The Maryland Chesapeake Bay summer hypoxic volume was slightly better than average in 2015. Hypoxia refers to water with less than 2 milligrams/liter (mg/L) of dissolved oxygen, a concentration at which aquatic organisms can experience stress or mortality.

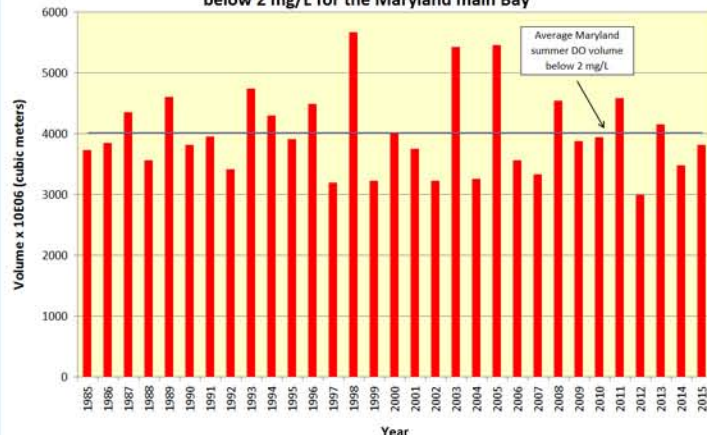
The 2015 average Maryland hypoxic volume was 3,806 million cubic meters compared with a 1985-2014 historical average of 4,008 million cubic meters. It ranked 13th smallest out of 31 years of sampling conducted by the Maryland Department of Natural Resources. The summer started with nearly the lowest hypoxic volume on record for early June, which was likely the result of low spring flows into the bay, and windy conditions during sampling which act to mix and oxygenate the water column. Conditions were closer to average from late June to late July, with an above average early August caused by wetter and warmer weather. Waters cooled into late August and September, reducing vertical temperature gradients which can contribute to hypoxia by preventing oxygen from reaching bottom waters.

In the beginning of the summer, National Oceanic and Atmospheric Administration, United States Geological Survey, University of Maryland Center for Environmental Science, and University of Michigan scientists predicted a smaller than average hypoxic volume due to lower than average spring flows and nitrogen loading. Overall, the summer monitoring results confirmed that prediction.

Range and average volume of water <2mg/l oxygen in Maryland's mainstem Chesapeake Bay (1985-present)



Summer 2015 average dissolved oxygen volume below 2 mg/L for the Maryland main Bay



For more information:

- *Eyes on the Bay* ([www.eyesonthebay.net](http://www.eyesonthebay.net)) - Chesapeake and Coastal Bays water quality results, and past hypoxia reports
- *Baystat* (<http://baystat.maryland.gov>) Maryland's action and progress towards Chesapeake restoration
- *U of MD Center for Environmental Science* Chesapeake hypoxia forecast history (<http://bit.ly/1Cr1hB6>)

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 (less than 2 mg/L oxygen) to determine possible impacts to bay life.

Each year from June-September, Maryland Department of Natural Resources computes these volumes from data collected by Maryland and Virginia. Data collection is funded by these states and their partner, the EPA Chesapeake Bay Program. Bay hypoxia reporting will resume in June 2016.

Posted: November 20, 2015

