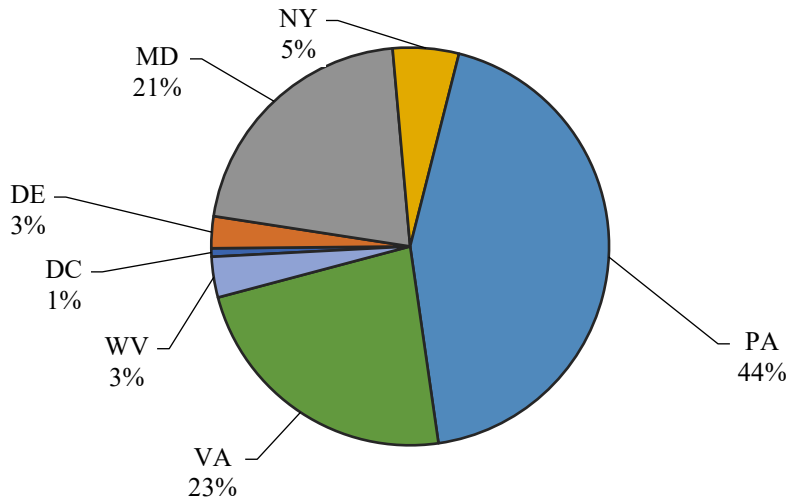


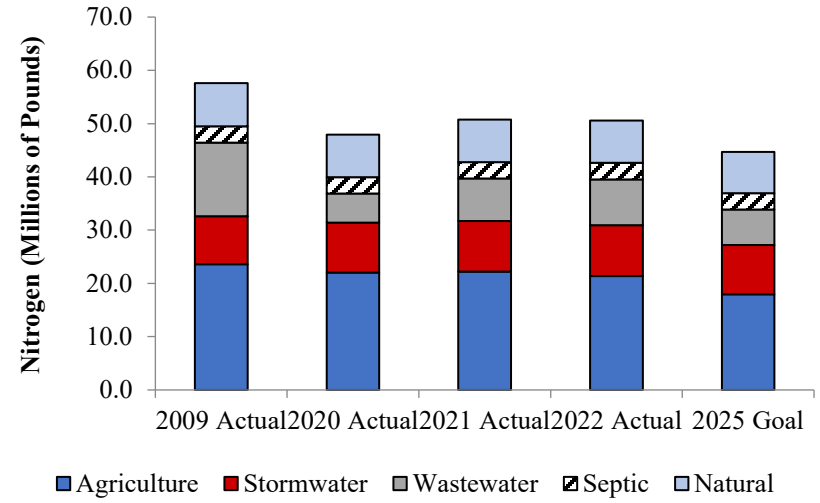
Chesapeake Bay Health

- The Chesapeake Bay watershed encompasses parts of six states, including Maryland, and the District of Columbia. The bay is especially vulnerable to pollution because the ratio of land area drained by the watershed to the volume of water in the bay is large. In 2022, Maryland was responsible for about 21% of the nitrogen and 27% of the phosphorous pollution delivered to the bay, which is roughly the same percentage for nitrogen relative to 2021 due to decreasing nitrogen loads and a greater percentage for phosphorus due to increasing phosphorus loads.
- Despite efforts to improve the health of the bay, limited progress has been made over the last decade and population growth and development is expected to complicate future progress.
- Nutrient pollution is the biggest problem for the health of the bay. Although nutrients are essential for growth and survival, too many nutrients harm water quality and aquatic life. Excess amounts of nitrogen and phosphorus are the main causes of the bay's poor health.
- Nutrients make their way into the bay from a number of sources, including wastewater treatment plants, agricultural runoff containing fertilizers and manure, urban and suburban runoff from septic systems and fertilizers, air pollution, and natural sources. In Maryland, the biggest source of nitrogen pollution to the bay is from the agricultural sector, which shrank 3.8% between 2021 and 2022. In contrast, nitrogen pollution from wastewater increased between 2021 and 2022, growing 8.2% due to failures at the Back River and Patapsco wastewater treatment plants. Stormwater pollution is the fastest growing source sector, growing by 5.8% between calendar 2009 and 2022. The second fastest growing source sector is the septic sector, growing by 1.3% between calendar 2009 and 2022.

Nitrogen Loads to the Chesapeake Bay by Jurisdiction (2022)



Maryland Nitrogen Target Goals by Source Sector

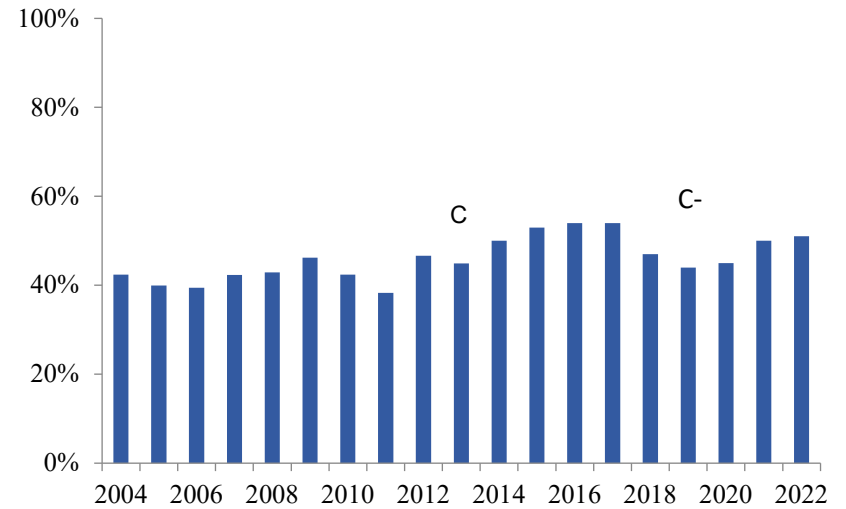


- The Chesapeake Bay Health Index is developed annually by the University of Maryland Center for Environmental Science and provides an overall assessment of the health of the bay. The index reflects a variety of indicators and presents an overall health index score (between 1 and 100) and accompanying letter grade.

- The health of the bay has generally remained the same since 2004. The overall health of the bay improved in 2022 with an overall score of C (or 51%, up from 50% in 2021), indicating that the bay is in “moderate ecosystem health.” A new measure, the watershed score, has shown a decreasing trend: B- (60%) in 2019, B- (64%) in 2020, C+ (56%) in 2021, and C (52%) in 2022. The years are not comparable because 2021 includes new economic indicators and 2022 includes the fish community indicator and an adjusted water quality index.

- The bay health index generally increases in dry years; lower river flow typically means that fewer nutrients and sediments are entering the bay.

Chesapeake Bay Health Index Calendar 2004-2022



Prepared by: Maryland Department of Legislative Services
Source: U.S. Environmental Protection Agency – Chesapeake Bay Program;
University of Maryland Center for Environmental Sciences; Maryland
Department of Legislative Services

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