

COMMON TERMS

WATERSHED

The area that channels rainfall and snowmelt to creeks, streams, and rivers, and eventually to reservoirs, bays, and the ocean.

TRIBUTARY

A river or stream flowing into a larger river or lake



Photo credit: Sidd Kumar, Staff

BEST MANAGEMENT PRACTICE (BMP)

Structural or engineered devices and behavioral practices that reduce or prevent pollution in stormwater

TMDL (TOTAL MAXIMUM DAILY LOAD)

TDML identifies how much of a pollutant a body of water can receive while still meeting water quality standards

Want to read more about the Chesapeake Bay TMDL and Virginia's Plan to improve the Bay's Health?

<https://www.deq.virginia.gov/Programs/Water/ChesapeakeBay/ChesapeakeBayTMDL.aspx>



804-323-2033 | www.PlanRVA.org

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RESTORING THE CHESAPEAKE BAY

The current conditions in the Bay are not healthy because of nitrogen, phosphorus and sediment pollution. Rain, which leads to stormwater runoff, causes these pollutants to get into local streams, creeks, rivers and the Bay itself.



Photo credit: Sidd Kumar, Staff

About the Chesapeake Bay TMDL

- The Chesapeake Bay watershed is about 64,000 square miles. The Bay watershed encompasses parts of 6 states (Virginia, West Virginia, Maryland, Pennsylvania, New York, Delaware) and all of Washington DC. The Richmond region is located in the Chesapeake Bay watershed.
- Since the late 1990s, portions of the Chesapeake Bay and its tidal tributaries have been identified as not meeting water quality standards associated with the Clean Water Act.
- To bring the Bay and its tributaries up to water quality standards, the EPA required that a Total Maximum Daily Load (TMDL) be developed. The Chesapeake Bay TMDL was issued in 2010.



https://www.google.com/url?sa=i&source=images&cd=&ved=2ahUKEwmi8WDwt_KA1Xnmig0KHQnTDLoQJFv6BAGBEAQ&url=https%3A%2F%2Fwww.chesapeakebay.net%2Fnews%2Fblog%2Fsix_chesapeake_bay_animals_best_seen_in_winter&psig=AOvWaw2m2b99kEXDIsM9ANFC04m_&ust=1569072020484268

Main Pollutants

NITROGEN AND PHOSPHORUS

- High amounts of nitrogen and phosphorus in the Bay contribute to algal blooms, excessive growth of algae that absorbs oxygen from the water. Blooms lead to "dead zones" that harm fish, shellfish, and even people with susceptible immune systems. Most nitrogen and phosphorus pollution derive from agricultural runoff, wastewater treatment plants, and urban and suburban runoff.



(EPA, 2019)

SEDIMENT

- Excessive sediment, the result of eroding rock and soil, dirties water and limits the amount of sunlight that reaches plants, fish, and other aquatic life. Sediment comes from eroding land and stream banks as a result of natural processes, often advanced by human land uses such as agriculture or construction. Heavy rain events can lead to increases in sediment pollution.



(James River Association, 2007)

Virginia's Draft Phase III Watershed Implementation Plan (WIP)

- The Chesapeake Bay TMDL requires reductions of nitrogen, phosphorus and sediment. This federal effort is intended to obtain water quality standards for each of the Bay's tidal segments, tributaries and the main stem of the Bay itself
- Virginia plans to achieve pollution reductions needed to restore the Chesapeake Bay and its tidal tributaries by working with various partners and stakeholders across the watershed
- Everyone is involved: agriculture, industry, wastewater treatment plants, real estate developers, homeowners, forestry operations, and local governments



(DEQ, n.d.)