CHESAPEAKE BAY TMDL FAQ SHEET

On December 29, 2010, the U.S. Environmental Protection Agency (EPA) established the Chesapeake Bay Total Maximum Daily Load (TMDL), a "pollution diet" to initiate actions to restore water quality in the Chesapeake Bay and the region's streams, creeks and rivers. This FAQ sheet is the compilation of information adapted from EPA, Virginia Department of Conservation and Recreation, and Chesapeake Bay Foundation websites.

SIGNIFICANT DATES

2011

- EPA completes TMDL and model revisions
- States submit Phase II Watershed Implementation Plans (WIPs) detailing actions proposed at a local scale.

2017

- States submit Phase III WIPs.
- EPA modifies TMDL allocations

2025

- States complete implementation actions.

TMDL Background

Q. *What is a TMDL?*
A. The Clean Water Act (CWA) sets an environmental goal that all waters in the United States be "fishable" and "swimmable." It requires states to establish appropriate uses for their waters and adopt water quality standards that are protective of those uses. Every two years, states are required to develop a list of waterways that are impaired by pollutants and do not meet water quality standards. For those waterways identified on the *303(d) list* of impaired waters, a TMDL must be developed. A TMDL is essentially a "pollution diet" that identifies the maximum amount of a pollutant the waterway can receive and still meet water quality standards.

Q. *Why was a TMDL developed for the Chesapeake Bay and its tidal tributaries?*
A. Despite extensive restoration efforts during the last 25 years, the Bay TMDL was prompted by insufficient progress and continued poor water quality in the Chesapeake Bay and its tidal tributaries. The TMDL is required under the federal Clean Water Act and responds to consent decrees in Virginia and the District of Columbia from the late 1990s.

Q. *How large is the Chesapeake Bay? How big is the watershed that drains into it? How many people live within the watershed?*
A. The Bay itself is about 200 miles long, home to more than 3,700 species of plants, fish and other animals. The Bay watershed totals about 64,000 square miles, stretching from Cooperstown, New York, to Hampton Roads. Nearly 17 million people live in the watershed. The Bay TMDL and its implementation plan will be enacted throughout the entire Chesapeake Bay watershed.

Q. *What is the Chesapeake Bay Program?*
A. The Chesapeake Bay Program includes the signers of the original 1983 Chesapeake Bay Agreement –Maryland, Virginia, Pennsylvania, and the District of Columbia; EPA, representing the federal government; and the Chesapeake Bay Commission, representing Bay jurisdiction legislators. It also includes the U.S. Department of Agriculture and the headwater jurisdictions of Delaware, New York and West Virginia. The Program is led by the Chesapeake Executive Council, which includes the EPA Administrator, the governors of Maryland, Pennsylvania and Virginia, the mayor of the District of Columbia, and the chair of the Chesapeake Bay Commission. The Principals' Staff Committee, which includes the EPA Region 3 Administrator, state secretaries and others, serves as an advisory body to the Executive Council.

Q. *How long has the Bay TMDL process been underway?*
A. Since 2000, the seven jurisdictions in the Chesapeake Bay watershed (Delaware, the District of Columbia, Maryland, New York, Pennsylvania, Virginia, and West Virginia), EPA, and the Chesapeake Bay Commission, have been planning for a Chesapeake Bay TMDL. During the October 2007 meeting of the Chesapeake Bay Program's Principals' Staff Committee, the Bay watershed jurisdictions agreed that EPA would establish the multi-state TMDL.

Additional Information:

http://www.dcr.virginia.gov/soil_and_water/baytmdl.shtml
http://www.epa.gov/reg3wapd/tmdl/ChesapeakeBay/index.html
http://www.cbf.org

HAMPTON ROADS PDC
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Water Quality

Q. What water quality problems affect the Bay?
A. Nitrogen and phosphorus pollution are the most serious problems facing the Bay. Too much nitrogen and phosphorus cause algae blooms that block sunlight to underwater grasses. When the blooms decompose, they create "dead zones," where dissolved oxygen levels are too low to sustain fish and shellfish. Excess sediment also degrades water quality. Poor water quality results in the loss of habitat for aquatic species throughout the Bay and its tidal and free flowing rivers.

Q. How do activities on the land impact Chesapeake Bay water quality?
A. At its healthiest in the early 1600s, the Chesapeake watershed was mainly comprised of forested buffers, wetlands, and resources lands (open space and farmland) that absorbed and filtered nutrients. As development occurred throughout the watershed, farms, factories, cities, and suburbs have replaced natural wetland filters and forested buffer areas, resulting in the increased flow of nutrients into waterways.

Q. How are the TMDL pollution limits set?
A. EPA utilized a modeling tool called the Bay Watershed Model to determine nitrogen, phosphorus, and sediment load caps for each state and the District of Columbia. These pollution limits are expressed as allocations by "segment-shed" (sub-basins of major rivers) and by the larger river basins. Within each basin, allocations are identified for the following source sectors: wastewater, onsite/septic, agriculture, urban stormwater, and forest.

Q. Will the Bay TMDL have benefits for waterways throughout the watershed?
A. The pollution controls employed to meet the TMDL will have significant benefits for water quality in the streams, creeks and rivers throughout the region, improving waterways that support local economies and livelihoods, provide for fishing, swimming, and boating opportunities, and often serve as sources of drinking water.

Sources of Nitrogen, Phosphorus and Sediment:

- **Agricultural operations**
- **Urban and suburban runoff (runoff from roadways, development, residential and commercial lawn fertilizers)**
- **Wastewater facilities**
- **Septic systems**
- **Air pollution (from vehicle exhaust, power plants)**

TMDL Implementation

Q. How will the Bay TMDL be implemented? What is the relationship between the TMDL and the Watershed Implementation Plan (WIP)?
A. The accountability framework includes Watershed Implementation Plans (WIPs) developed by the states, two-year milestones identified in the WIPs, EPA's tracking and assessment of restoration progress and, as necessary, specific federal actions if jurisdictions do not meet their commitments.

Q. What are the expected consequences if a segment or basin fails or exceeds an assigned loading level, or if two-year milestones are not met?
A. If state actions fall short, EPA is prepared to impose consequences to assure progress. For example,

- Expand stormwater permit coverage to currently unregulated sources
- Object to stormwater permits and increase program oversight
- Require additional reductions of loadings from point sources

Q. When does the TMDL anticipate the Bay will be restored?
A. All pollution control measures will be in place by 2025. While it will take years after 2025 for the Bay to fully heal, EPA expects some areas of the Bay will recover before others and there will be gradual improvement in water quality as controls are put in place around the watershed.

Q: How will the TMDL implementation be funded?
A: Virginia has increased funding to support agricultural management practices. Wastewater and stormwater system upgrades will be funded primarily by ratepayers. Virginia's Water Quality Improvement Fund may provide grants to some systems. An expanded nutrient trading program may allow sectors to trade credits and reduce nutrient loads more cost effectively.