Fact Sheet

Chesapeake Bay Total Maximum Daily Load (TMDL)

Driving Actions to Clean Local Waters and the Chesapeake Bay

On Dec. 29, 2010, the U.S. Environmental Protection Agency established the Chesapeake Bay Total Maximum Daily Load (TMDL), a historic and comprehensive "pollution diet" with rigorous accountability measures to initiate sweeping actions to restore clean water in the Chesapeake Bay and the region's streams, creeks and rivers.

Despite extensive restoration efforts during the past 25 years, the 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. It is also a keystone commitment of a federal strategy to meet President Barack Obama's Executive Order to restore and protect the Bay.

The TMDL – the largest ever developed by EPA, encompassing a 64,000-square-mile watershed – identifies the necessary pollution reductions from major sources of nitrogen, phosphorus and sediment across the District of Columbia and large sections of Delaware, Maryland, New York, Pennsylvania, Virginia and West Virginia, and sets pollution limits necessary to meet water quality standards in the Bay and its tidal rivers.

Specifically, the TMDL sets Bay watershed limits of 185.9 million pounds of nitrogen, 12.5 million pounds of phosphorus and 6.45 billion pounds of sediment per year – a 25 percent reduction in nitrogen, 24 percent reduction in phosphorus and 20 percent reduction in sediment.

The pollution limits are further divided by jurisdiction and major river basin based on state-of-the-art modeling tools, extensive monitoring data, peer-reviewed science and close interaction with jurisdiction partners. The TMDL is designed ensure that all pollution control measures needed to fully restore the Bay and its tidal rivers are in place by 2025, with practices in place by 2017 to meet 60 percent of the overall nitrogen, phosphorus and sediment reductions.

The final TMDL is shaped by an extensive two-year public involvement effort and, in large part, by final Phase I Watershed Implementation Plans (WIPs) developed by the six Bay states and the District of Columbia, which detail how and when the jurisdictions will meet pollution allocations.

In addition, the TMDL includes targeted "backstop allocations" for the few areas where the WIPs did not meet the allocations or EPA's expectations of reasonable assurance that those allocations would be met, and a plan for enhanced oversight and contingency actions to ensure progress.

Also, EPA has committed to reducing air deposition of nitrogen to the tidal waters of the Bay from 17.9 to 15.7 million pounds per year through federal air regulations during the coming years.

The Chesapeake Bay TMDL is unique because of the extensive measures EPA and the jurisdictions have adopted to ensure accountability for reducing pollution and meeting deadlines for progress. The accountability framework includes the WIPs, two-year milestones, EPA's tracking and assessment of restoration progress and, as necessary, specific federal actions if the jurisdictions do not meet their commitments.

Addressing the Challenges

A TMDL is the calculation of the maximum amount of pollution a body of water can receive and still meet state water quality standards designed to ensure waterways meet a national primary goal of being swimmable and fishable. Monitoring data continues to show that the Bay has poor water quality, degraded habitats and low populations of many species of fish and shellfish. The Bay and its rivers are overweight with nitrogen, phosphorus and sediment from agricultural operations, urban and suburban runoff, wastewater, airborne contaminants and other sources. The excess nutrients and sediment lead to murky water and algae blooms, which block sunlight from reaching and sustaining underwater Bay grasses, and create low levels of oxygen for aquatic life, such as fish, crabs and oysters.

The Bay TMDL – actually a combination of 92 smaller TMDLs for individual Chesapeake Bay tidal segments – includes pollution limits sufficient to meet state water quality standards for dissolved oxygen, water clarity, underwater Bay grasses, and chlorophyll *a*, an indicator of algae levels.

Actions under the TMDL will also have significant benefits far beyond the Chesapeake itself, helping to clean rivers and other waterways that support local economies and recreational pursuits like fishing and swimming, and serve as drinking water sources.

In 2011, while the jurisdictions continue to implement their WIPs, they will begin development of Phase II Watershed Implementation Plans, designed to more closely engage local governments, watershed organizations, conservation districts, citizens and other key stakeholders in reducing water pollution. The Phase II WIPs are expected to provide local area targets for implementation on a smaller scale. Phase III WIPs in 2017 are expected to be designed to provide additional detail of restoration actions beyond 2017 and to ensure that the 2025 goals are met.

For Further Information, View: http://www.epa.gov/chesapeakebaytmdl