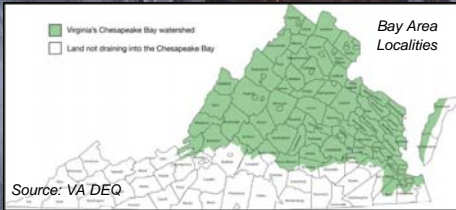


VA DEQ REPORTS VIRGINIA'S WATER RESOURCES FAIL TO MEET WATER QUALITY STANDARDS

- 21% OF RIVER MILES ARE IMPAIRED
- 81% OF LAKE ACREAGE IS IMPAIRED
- 95% OF ESTUARY ACREAGE IS IMPAIRED



Stormwater focus

68 COUNTIES AND 28 CITIES PREPARE TO FACE EMERGING CHESAPEAKE BAY WATERSHED RESTORATION REQUIREMENTS

Key Initiatives

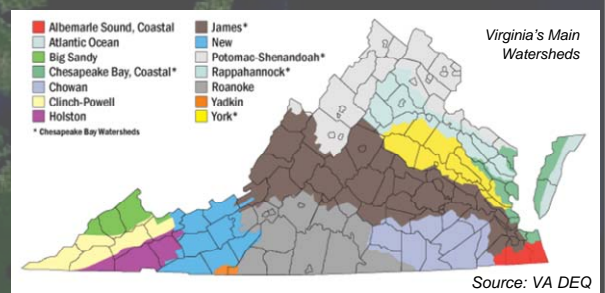
ON MAY 12, 2009, PRESIDENT OBAMA SIGNED EXECUTIVE ORDER 135208, "CHESAPEAKE BAY PROTECTION AND RESTORATION", [LINK TO EO 135208](#)

Water quality requirements outlined therein are focused on reducing current levels of nitrogen and phosphorus in the Bay by 44 and 27 percent respectively. This will require more stringent controls on urban, suburban, agricultural and forested sources within the watershed; and will include broader regional controls on sources of atmospheric nitrogen which are deposited in the Bay watershed. These reductions must account for existing loads as well as expected growth, a significant challenge as the watershed population is projected to increase by nearly 30 percent during this timeframe.

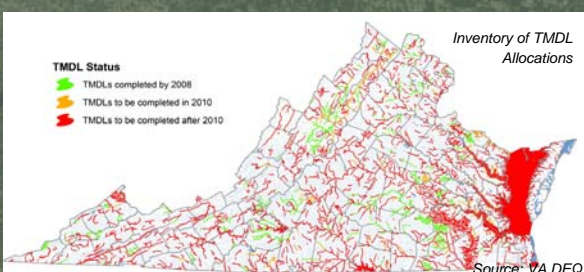
By May 1, 2011, EPA is to establish the first federal milestone, a "Total Maximum Daily Load - TMDL" allocation for nitrogen, phosphorus, and sediments that will be allowed to enter the Chesapeake Bay. It is expected that these standards will require Virginia to remove an additional 3.4 million lbs of nitrogen and 470,000 lbs of phosphorus from our waterways by 2025.

These TMDL standards will require development of detailed Watershed Implementation Plans (WIPs) within 6 months of defining the TMDL, (currently Nov 1, 2011). This will include development of 1,700 tributary specific plans in Virginia. These plans must specifically articulate how all sources of pollution including loads from stormwater and agricultural runoff will be addressed. Milestones must be targeted on achieving improved water clarity; reducing algae levels and increasing ambient oxygen levels by 2025. EPA has mandated that PA, MD, VA and DC use enforceable permits and standards to implement these reductions.

Landsat imagery courtesy of NASA Goddard Space Flight Center and U.S. Geological Survey



TMDL Modeling Non-Point Sources (NPS)



The Bay TMDL is the largest and most complex numerical water quality model ever developed as it involves regulating water pollution from six states and the District of Columbia. The model includes the cumulative impact of more than 17 million people, 88,000 farms, 483 significant treatment plants, thousands of smaller facilities and many other sources in the 64,000 square mile watershed. Virginia DCR estimates the state's TMDL non-point source pollution control needs will exceed \$2.2 billion. This included \$580M for Agricultural BMPs, \$660M for non-agricultural BMPs, and \$989M for stream and river TMDL cleanup plans.

Urban/Forestry & Agricultural Balance

Agriculture accounts for 69-79% of Non-Point Source pollution loads. Improved control of nutrients emanating from Virginia's population of 54,000,000 chickens and turkeys; 1,566,000 cattle; 350,000 hogs and pigs; and 75,000 sheep will be more cost effective in many cases than intensive urban controls. Balancing this cost-benefit ratio between Virginia's urban and rural areas will be a significant challenge of the **Watershed Implementation Plans**. Check out DEQ's progress on tributary TMDL development on the web at: [At-A-Glance TMDL](#)

Urban Stormwater – VPDES and VSMP

Virginia has published new VSMP regulations for **new and existing development** which are scheduled for implementation with the TMDL WIPs, (no later than December 2011). [Link to 2009 VSMP Regulations](#). This program is in addition to the Phase I and Phase II MS4 VPDES program which effects 100 permittees around the Commonwealth. [Link to 2009 List of MS4 Permittees](#).

In 2010 the Virginia Municipal Stormwater Association estimated compliance with the new Virginia Stormwater Management Program (VSMP) rules will cost localities on the order of \$68-\$123M. Ongoing maintenance costs are also projected to rise precipitously under this new program due to more intensive maintenance practices required with improved pollution controls. This has initiated renewed interest in forming stormwater utilities; creating user fees to sustain urban drainage management. Due to the potential economic impact of these regulations and uncertainty regarding the final Bay TMDL requirements, the General Assembly recently deferred statewide implementation of these regulations until December, 2011, (or when the TMDL is finalized).

FOR MORE USEFUL INSIGHTS ON THESE AND OTHER WATER RESOURCE ISSUES IN VIRGINIA
PLEASE CONTACT: TOM FITZGERALD, JAY LEWIS, OR ROB MANGRUM AT [Wiley|Wilson](#)
434.947.1901 - WILEYWILSON.COM

FEDERAL SECTOR

Executive Order Requirements

Key Points:

1. Renewed Federal leadership.
2. DOD to lead stormwater management at Federal facilities/lands.
3. Federal Agencies shall employ innovative science based watershed solutions.
4. USDA will implement conservation programs to protect critical areas.
5. Federal Facilities controlling over 10 acres shall prepare Bay management plans.
6. Federal Agencies will assess impact of climate change to Bay resources
7. Federal Agencies will improve access to and conservation of Bay habitats.

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