

Backgrounder

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25 YEARS OF THE CHESAPEAKE BAY PROGRAM INCLUDES...

Developing the nation's best watershed science and management

- Fostered **unparalleled cooperation** between six states, D.C., an organization of state legislators and a core group of 10 federal agencies.
- Developed the science and approach for large-scale ecosystem restoration that is well-recognized as the **best and most extensive in country** and often around the world.
- Led to launch of National Estuary Program, which supports restoration of 28 estuaries.
- Supported the restoration efforts of more than 40 watershed programs, river basins and states.
- Hosted delegations from **more than 20 countries** at the Bay Program Office for advice and information.
- Provided part of the scientific underpinnings for Bay water quality criteria, leading to adoption of regulations by Maryland, Virginia, Delaware and D.C.
- Provided data necessary for the original 40 percent goal in 1987, the reductions by major tributary basin and jurisdiction in 1992 and the detailed cap load allocations adopted in 2003.
- Led to the **establishment of numerous goals** such as pollution loads, riparian forest buffers, underwater grasses acreage which form the basis of the Health and Restoration Assessment.
- Being used to determine the load allocations for Chesapeake TMDL.
- Continue to be used to quantify past, present and future effects of climate change.
- Supported partners' use of adapt management approaches and actions based on lessons learned and a continuously evolving ecosystem.

Pioneering restoration of a large, complex ecosystem

- Placed a **moratorium on striped bass harvests**, leading to restoration of the stock that supports 90 percent of the Atlantic Coast population.
- Met goals by 1993 for construction of **fish passages** through a six-state watershed.
- Maryland was the first state in the nation in the Conservation Reserve Enhancement Program, and now Pennsylvania has the largest CREP in the nation.
- Took the use of cover crops to unprecedented statewide and basinwide scales.
- Virginia took the practice of 'never till' from concept to widespread practice.
- Pennsylvania was the first state in the nation to enact mandatory **nutrient management plans for farms** and the first state to have an EPA approved Concentrated Animal Feeding Operation **permit program.**
- Established and met the nation's first riparian buffer restoration goals for multi-state watershed.
- Pennsylvania was first state in the nation to initiate phosphorus limits on major wastewater dischargers.
- Banned use of phosphorus in laundry detergent.
- Spearheaded the widespread implementation of biological nutrient removal technologies across hundreds of wastewater treatment facilities.
- Now spearheading the widespread implementation of **enhanced nutrient removal technologies** across Maryland, Virginia, Delaware and D.C.'s wastewater treatment facilities.
- First to adopt consistent water quality standards and assessment procedures for interstate water body.
- Established the **nation's first 303(d) list of impaired waters** with full consistent listings across four jurisdictions sharing a large interstate water body.
- Now establishing a **national model for a TMDL** for a multi-state watershed where upstream states contribute to downstream states' impaired water quality.

Protecting the watershed

- Nutrient management plans on 3.2 million farmland acres.
- Conservation tillage is being practiced on more than 2 million acres.
- There are **over 1 million acres** of best management practices for stormwater.
- Planted more than 5,722 miles of streamside forested buffers

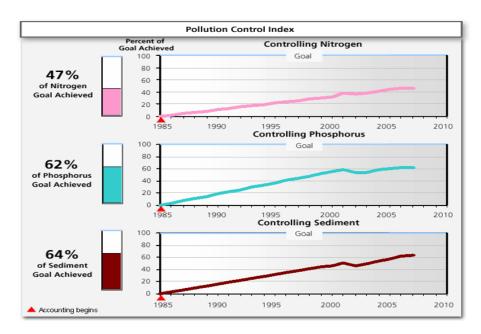
- Restored 12,532 acres of wetlands.
- Preserved nearly 1 million acres of forests, wetlands, farmland and other resources lands.
- Removed blockages to more than **2,000 miles** of spawning grounds to help restore migratory fish, including Pennsylvania's removal of more dams than any state in the nation.
- Underwater bay grasses increased by 27,000 acres with restoration goals met in many areas throughout the
 upper Bay and upper reaches of many Bay tributaries.

Supporting funding for projects

- Provided information for development of the National Pollution Discharge Elimination System permitting strategy to regulate 483 dischargers throughout the watershed.
- Led to Maryland's **\$66 million** per year flush fee, Virginia's investment of **\$700 million** over two years and a potential **\$1.2 billion** in Pennsylvania for wastewater treatment infrastructure.
- Secured Farm Bill funding of at least \$188 million for unprecedented targeting of agricultural conservation practices in Chesapeake Bay watershed and specific tributary river watersheds.
- Provided \$15.3 million in Small Watershed Grants, \$13.8 Targeted Watershed Grants, \$13.8 Innovation Nonpoint Source Reduction Grants for states and nonprofit organizations.
- Obtained \$470 million in federal funds for D.C.'s Blue Plains wastewater treatment plant.
- Enabled the partners to **quantify the funding needed** for Bay restoration \$18 billion by the Chesapeake Bay Commission and \$28 billion by the Blue Ribbon Finance Panel.

Reducing the pollutants of nitrogen and phosphorus

- More than half of the pollution reduction efforts needed to achieve the Chesapeake Bay Program's water quality goals have been implemented since 1985.
- This chart shows the steady progress in implementing measures needed to reduce nitrogen, phosphorus and sediment.



- Nitrogen input from municipal and industrial wastewater has been reduced by 34.3 million pounds and phosphorus reduced by 5.4 million pounds since 1985.
- Nitrogen and phosphorus trends are downward in the majority of tributary sites monitored in the Chesapeake Bay watershed. The U.S. Geological Survey monitors 34 sites within the watershed's nine major tributaries, which comprise 93 percent of the streamflow to the Bay. The data is then adjusted to account for annual variations in precipitation.
 - For 1985-2007, nitrogen trends were downward at 22 of the 34 sites (65 percent) in the watershed.
 - For 1985-2007, phosphorus trends were downward at 22 of the 34 sites (65 percent) in the watershed.
- For more on reducing pollution visit http://www.chesapeakebay.net/status reducingpollution.aspx