



Fact Sheet

Commonwealth of Pennsylvania • Department of Environmental Protection

Questions and Answers

Pennsylvania's Chesapeake Bay Tributary Strategy

What is the Tributary Strategy?

Pennsylvania's Chesapeake Bay tributary strategy is a catalog of activities and measures that, if applied to Pennsylvania's Susquehanna and Potomac Watersheds, generate appreciable nutrient or sediment reductions in order to provide cleaner water resources at home and help restore the water quality downstream in the Chesapeake Bay.

The strategy is dynamic in nature. It identifies 46 different best management practices, from tree planting and forested stream buffers, to urban street sweeping, stormwater controls and sewage treatment plant upgrades and allows us to add up linear feet of installation and acres of improvements throughout the whole basin to track progress toward the goal.

In 2000, the Environmental Protection Agency (EPA) provided a ten-year grace period for the states of the Chesapeake Bay drainage area to voluntarily reduce nutrient pollution to levels that eliminate the dead zones and restore a healthy Bay. The strategy is essentially a scorecard identifying an array of practices that when implemented would achieve the 40 million pounds of nutrient reductions assigned to Pennsylvania.

Our initial 2004 strategy will help direct state and federal cost sharing dollars, as well as local government and private efforts toward these proven practices. However, the initial estimated amounts of each practice may be revised as we go forward, and adjusted to emphasize the most popular and cost effective practices. Each of the Bay Region states will reassess their progress and strategy in 2007. Pennsylvania will continue to work with stakeholder groups to identify and consider new programs and practices which may help meet our Bay nutrient and sediment reduction goals while addressing local stream impairments.

What will the Tributary Strategy Accomplish?

The goal of the Chesapeake 2000 Agreement is to achieve water quality improvements to restore the Bay prior to 2011 when EPA would establish a bay-wide Total Maximum Daily Load resulting in mandatory directives from EPA. The tributary strategy is intended to accomplish sediment and nutrient reductions necessary to meet this goal. This effort will also help ensure that the water in Pennsylvania is safe to drink, healthy enough to sustain aquatic life and abundant in supply to sustain the economy.

Is the Tributary Strategy Mandatory?

The tributary strategy is not a catalog of actions that will be mandated. Rather, it is a menu of measures that, if taken, generate appreciable nutrient and sediment reductions. This approach allows Pennsylvania to take credit for every pound reduced from every good land-use practice or industrial pollution prevention innovation.

There are two mandatory measures that have been instituted specifically to meet the Chesapeake Bay requirements. The Agricultural, Communities and Rural Environment (ACRE) initiative will significantly increase the number of farms that must comply with specific environmental regulations related to nutrient management and erosion and sediment control. In addition, new water quality standards recently approved by EPA for the Bay, are applicable upstream in the Susquehanna and Potomac watersheds. EPA has agreed that National Pollutant Discharge Elimination System (NPDES) permits will be in compliance with the new water quality standards if they are written consistent with the state tributary strategy.

Other actions that may be taken voluntarily or pursuant to other requirements unrelated to the Bay, e.g. federal stormwater requirements, will have ancillary benefits for the Chesapeake Bay, but they are not mandated as part of Pennsylvania's Bay plan.

It should be noted that if nutrient and sediment reduction goals of the Chesapeake 2000 Agreement are not met, EPA will establish mandatory directives for the Bay states in 2011.

Is the Tributary Strategy Cost-Effective?

In developing the tributary strategy, DEP has relied heavily on the six examples of cost-effective measures provided in the Chesapeake Bay Commission's *Cost-Effective Strategies for the Bay*: wastewater treatment plant upgrades, cover crops, traditional and enhanced nutrient management conservation tillage and diet and feed adjustments for livestock and poultry, to achieve the bulk of the targeted reductions. Those six practices, as well as riparian buffers that are fully reimbursed through the Conservation Reserve Enhancement Program (CREP) are at the center of the strategy. Because agricultural practices can inexpensively eliminate over half of the reductions needed, the strategy is focused on delivering those practices, and augmenting the funding for those practices, and implementing nutrient trading.

Stormwater controls are not cost effective for reducing nutrients, but are very effective in protecting property from damage, eliminating wet basements and loss of backyards to flashy streams. The strategy does not rely heavily on these expensive practices, but does include them because they will occur for other reasons, and will provide nutrient reductions in addition to their primary purposes. Stormwater retrofits are important to quality of life and brownfields redevelopment but are only secondarily nutrient reduction practices. Therefore, the costs of this practice are inappropriate to attribute to the tributary strategy, as it does not mandate new stormwater controls.

Is Funding Available for Point Sources?

In addition to the regular \$150 to \$200 million available annually in PENNVEST grants and loans for water and wastewater systems, Act

218 provides \$250 million in bond money for sewer and water infrastructure. This includes up to \$50 million in grants for nutrient reduction technology upgrades and an authorization to issue an additional \$50 to \$100 million in new bonds to provide loans through PENNVEST. Act 218 provides \$200 million through PennWorks for water and wastewater systems that are connected to economic development. Other funding sources for wastewater treatment facilities include approximately \$5 million in Growing Greener Innovative Technology grants and Growing Greener II money.

Is Funding Available for Nonpoint Sources?

Funding for the nonpoint source measures is available through many state and federal sources including CREP, Growing Greener, Chesapeake Bay Small Watershed Grants, Chesapeake Bay Implementation Grant Program, the Department of Environmental Protection (DEP) Stream Bank Fencing Program, DEP Stream Improvement Program, DEP Chesapeake Bay Financial Assistance Funding Program, DEP Nonpoint Source 319 Program, DEP Stormwater Management, Environmental Quality Incentives Program, Pennsylvania Association of Conservation Districts Chesapeake Bay Educational Mini Projects Grants, Conservation Reserve Program, and the Ducks Unlimited Inc. Partnership Program. In 2004 alone the total funding for these programs was approximately \$75 million.

What is the Impact to Onlot Systems?

The tributary strategy does not impose new restrictions on onlot systems. Removal of nitrogen from septic systems is one of the best management practices (BMPs) that was selected in the Watershed Model and listed in the tributary strategy to meet the nutrient and sediment goals. However, the tributary strategy does not require existing septic systems to be retrofitted to include denitrification. Current plans are to advance DEP's Experimental Onlot Wastewater Technology Verification Program. Onlot systems that are connected to a sewage treatment plant can generate offsets that can be used by point sources. We will work with stakeholders to develop any new program initiatives needed, and any regulatory changes

proposed will follow the normal public participation process.

What is Nutrient and Sediment Trading?

Nutrient and sediment trading is an approach to improving water quality that utilizes market mechanisms to produce pollutant reductions at lower costs. The voluntary trading program is an option for point or non-point sources that exceed their environmental obligations to earn credits that may be sold to others who desire nutrient reduction credits. The program may be used by point sources to comply with a new permitted nutrient limit or by nonpoint sources to implement additional BMPs that help reduce nutrient loadings. Third parties that wish to invest in protecting and advancing the water quality goals of the state may participate in the program as well. The Department adopted an *Interim Final Nutrient and Sediment Reduction Credit Trading Policy and Guidelines* in October 2005, which provides details on how credits may be issued and traded.

Important Dates

New water quality standards applicable in the Susquehanna and Potomac watersheds became effective August 29, 2005. All NPDES

permits for wastewater treatment plants and industrial dischargers issued after this date must be consistent with the tributary strategy.

A Nutrient and Sediment Reduction Credit Trading Interim Final Policy and Guidelines was published in the October 1, 2005 Pennsylvania Bulletin. This interim policy may be used to initiate trades and will be issued final after consideration of public comments. Public comments will be accepted until December 31, 2005.

In 2007, the Chesapeake Bay Program partners have scheduled a re-evaluation of the nutrient and sediment reduction goals with a revised Watershed Model. In conjunction with this effort, Pennsylvania will also undertake an internal strategy progress review. At that time we will identify and expand efforts that are yielding the greatest success.

For more information regarding Pennsylvania's tributary strategy, nutrient and sediment trading, and other Chesapeake Bay restoration initiatives visit the DEP's Web site at www.depweb.state.pa.us (Keyword: "Chesapeake Bay" or the EPA Chesapeake Bay web site at www.chesapeakebay.net).