

Virginia's Chesapeake Bay Watershed Point Source Nutrient Control Strategy



HJR 640 Committee
July 20, 2005 Meeting

Presentation Summary

- What Makes Up VA's Point Source Strategy?
 - VA Tributary Strategies
 - Point Source Regulations
 - Chesapeake Bay Watershed Nutrient Credit Exchange Program
 - Water Quality Improvement Fund
- How does this compare to the Chesapeake Bay Commission's Cost-Effective Strategies report?

Watershed Approach to Nutrient Reduction



- Virginia's Tributary Strategies define the necessary point and non-point source control actions
 - Developed based upon models and extensive stakeholder input
- Point source load allocations were based upon design flow capacity with stringent nutrient control technologies
 - Final implementation depends upon regulations being developed by the SWCB
- Remaining nutrient reductions in river basins need to be accomplished by non-point sources

Status of Regulatory Actions for Point Source Dischargers

- Water Quality Management Planning Regulation – sets nutrient waste load allocations
- Regulation for Nutrient Dischargers – sets technology-based nutrient concentration limits for certain discharges
 - *Allocations are based upon stringent treatment levels*
 - *State Water Control Board action expected fall 2005*
- Watershed General Permit – authorizes discharge of nutrients from point sources and establishes trading program
 - *Allows more cost-effective approach for meeting allocations*
 - *State Water Control Board action expected by early 2006*

Chesapeake Bay Watershed Nutrient Credit Exchange Program (HB 2862 / SB 1275)

Legislative findings and purposes.

Adoption and utilization of a watershed general permit and market-based point source nutrient credit trading program will assist in:

- (a) meeting the nutrient cap load allocations cost-effectively and as soon as possible in keeping with the 2010 timeline and objectives of the Chesapeake 2000 agreement,**
- (b) accommodating continued growth and economic development in the Chesapeake Bay watershed, and**
- (c) providing a foundation for establishing market-based incentives to help achieve the Chesapeake Bay Program's non-point source reduction goals.**

Major Elements of Credit Exchange Program

- SWCB to issue “Watershed General Permit” containing nutrient waste load allocations for each significant discharger
- Allows trading within basins among facilities covered by WGP
- Provides additional options for new or expanding dischargers: acquire non-point source offsets and/or payment into WQIF
- Authorizes establishment of “Nutrient Credit Exchange Association” to assist dischargers

How will Credit Exchange Program improve cost-effectiveness?

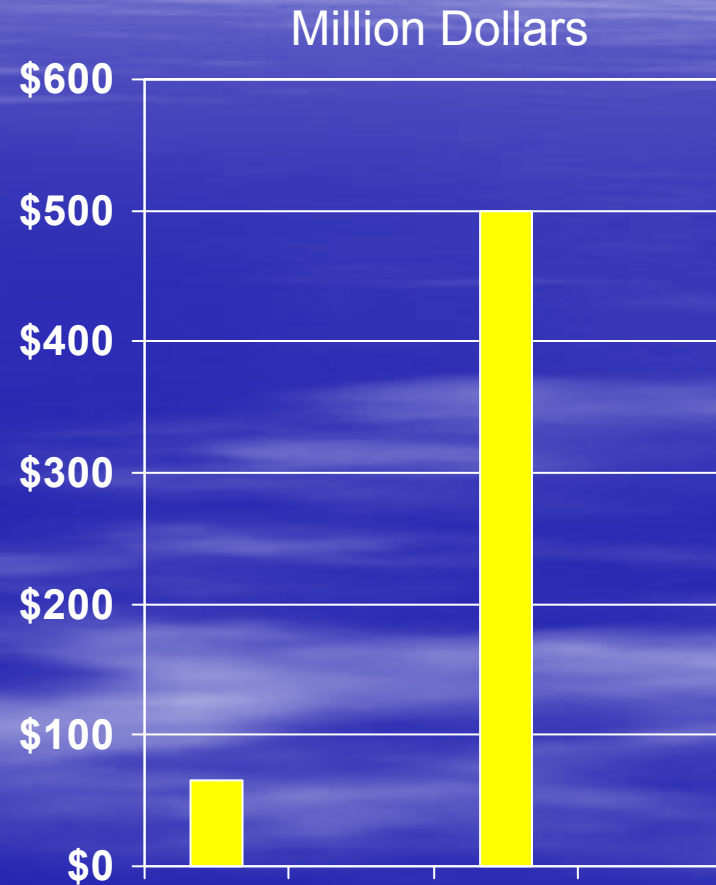
- Phasing in treatment plant upgrades - not all plants need to construct facilities by 2010
- Avoid/delay less-efficient (i.e., higher cost per pound) upgrades
- Expanding and new plants may acquire non-point source offsets in lieu of excessive upgrade costs
- Avoid enforcement penalties through compliance alternative of acquiring credits from WQIF

Water Quality Improvement Fund Needs

- **Total point source capital need: \$1.200 B**
 - for 125 significant treatment plants
- **POTW capital cost need: \$1.111 B**
 - for 103 publicly owned plants
- **Variables Affecting Amount of Grant Funds Needed:**
 - WQIF grant percentage varies: 35 to 75%
 - Planning cost estimates: could be higher or lower
 - Not all POTWs may need, or decide, to upgrade prior to 2010 to achieve loading goals
- **Compliance Plans required under Watershed General Permit will clarify the funding needs and schedules**
 - Plans available in 2006

Water Quality Improvement Fund Needs *[cont.]*

- WQIF funds available in FY06 = \$65.7 million
- WQIF funds needed to upgrade treatment plants ~ \$500 million



How Does VA's Point Source Strategy Compare to Commission's Report?

Strategy is Consistent

- Relies on widespread installation of stringent nutrient removal technologies, recognizing regional needs
- Calls for operation of installed facilities at design efficiencies
- New credit exchange program provides cost-effective options that avoid the most technically difficult retrofits