



Virginia's Chesapeake Bay Strategy



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VA's Strategy:

Chesapeake Bay and Virginia Waters Clean-up Plan

- See this link on SNR's website:
www.naturalresources.virginia.gov/Initiatives/WaterCleanupPlan
- Plan updated annually with progress report every six months





Impaired Waters Identified Per Assessment Cycle by Waterbody Type

Waterbody Type	1996	1998	2002	2004	2006 ²
Rivers 50,356 (miles)	2,016	2,611	4,838	6,931	9,002
Lakes 116,054 (acres)	17,141	0	115,558 ¹	89,834	109,201
Estuaries 2,425 (sq. miles)	506	437	1,689	1,907	2,212



¹ Area included lakes shared by Virginia and North Carolina. 25,724 acres determined to be in North Carolina and removed from Virginia's 2004 total impaired acreage.

² 2006 Assessed Amounts: 14,265 River miles; 112,473 Lake acres; 2,382 Estuary sq. miles





Existing Clean-up Plans

TMDLs

- Consent Decree (~700)
- Others [within 12 years of listing] = 1,399

Chesapeake Bay Tributary Strategies

- Cleanup Plan for each major Bay watershed river basin
- Nitrogen, Phosphorus, Sediment





Funding Needs

\$600 Million

State's Share of the
Cost to Implement
TMDLs in the
Southern Rivers

\$920 Million

State's Share of
Upgrading Sewage
Treatment Plants in
Bay Watershed

\$580 Million

State's Share to
Implement
Agricultural BMPs

The Most Cost Effective
Combination That Will Produce
The Greatest Water Quality
Improvements.

Total Cost to the State:

\$2.76 Billion

\$660 Million

State's Share of the
Cost to Implement
Other Nonpoint
BMPs





Reality Check



Available
Resources

Cleanup Plan





"The Plan"

- First publication: January 2007
- First progress report: October 2007
- Plan update now underway





Make it Simple

but

Include Everything





Key Words

- “Measurable”
- “Attainable”
- “Phasing”
- “Prioritized”





"The Plan"

Getting Focused

- 🐟 Measurable/Attainable Objectives
- 🐟 Description of Clean-Up Strategies
- 🐟 Time Frames/Phasing
- 🐟 Prioritization & Sufficient Funding
- 🐟 Problem Areas & Plan to Address
- 🐟 Coordination — State-Local Govt.
- 🐟 Alternative Funding Mechanisms
- 🐟 Legislative Recommendations





"The Plan"

Accountability

- Polluted Stream Miles Added/Removed
- Lbs of Pollution Reduced (all sources)
- Extent of Monitoring
- Number of BMPs Implemented
- TMDLs Developed/Implemented
- Compliance with Local Programs:
 - Erosion and Sedimentation Control
 - Stormwater Management
 - Chesapeake Bay Preservation Act





Point Source Elements of "The Plan"





Chesapeake Bay Watershed Point Source Regulations

- **Nutrient Enriched Waters and Dischargers Within the Chesapeake Bay Watershed**
 - 9 VAC 25-40: effective 11/16/05
 - Sets annual average technology-based concentration limits
- **Water Quality Management Planning Regulation**
 - 9 VAC 25-720: effective 1/11/06
 - Sets annual load limits
- **General VPDES Watershed Permit Regulation**
 - 9 VAC 25-820-10: effective 11/01/06
 - Implements Nutrient Credit Exchange Program
 - Helps meet PS nutrient load caps cost-effectively and as soon as possible
 - Provides foundation for market-based incentives to achieve NPS nutrient reductions





Nutrient Trading

- Watershed General Permit effective date: January 1, 2007
- 147 current registrants
- Initial Compliance Plans – Aug. 2007; first annual updates – Feb. 2008
- Compliance dates of January 1, 2011 for each Bay river basin
- Dischargers expect to meet compliance date for both phosphorus and nitrogen in each of the five Bay river basins
- Est. savings of 23 – 33% in capital costs





Nutrient Trading

(continued)

- Modeled after a Cap & Trade Program
- “Bubbling” or aggregating allocations allowed
- Point Source-to-Point Source trading for existing facilities
- Point Source-to-Nonpoint Source trading only allowed to accommodate new and expanding facilities





Water Quality Improvement Fund Ches Bay Point Source Program

- 35% - 75% grants for design and installation of nutrient reduction technology
- Long-term operation and maintenance agreement with performance limits
- Reimbursements subject to available funds
- Appropriations + interest earned to-date = \$387.46 million
- 2007 legislation authorized bond proceeds up to \$250 million





Water Quality Improvement Fund Ches Bay Point Source Program

Status of grant projects:

- 28 signed agreements, awarding \$351 million
 - 4.3 million lbs/yr nitrogen reduction
 - 597,000 lbs/yr phosphorus reduction
- 27 agreements in negotiation = \$214 million
- 23 applications not-ready-to-proceed, requesting \$165 million
- 22 eligible facilities haven't applied yet; estimated grant need = \$187 million





Water Quality Improvement Fund

"Southern Rivers" Point Sources

- 2006 legislation included \$17 million for WQIF projects outside Bay watershed for these types of projects:
 - design and construction of mandated water quality improvement facilities at POTWs that would result in financial hardship;
 - correction of onsite sewage disposal problems; and,
 - development of comprehensive local and regional wastewater treatment plans, preliminary engineering, and environmental reviews.
- Program managed by Dept. of Housing and Community Development





Math Quiz

Appropriations + interest = \$387 million

Bond Authorization = \$250 million

Total Funds "Available" = \$637 million

Est. WQIF grants needed = \$920 million

$$\$637 \neq \$920$$



General Assembly Policy: "...provide annually its share of financial support...to fulfill the Commonwealth's responsibilities under Article XI of Constitution of VA" (§10.1-2128.B)





Nonpoint Source Elements of "The Plan"





Reality Check

- Tributary Strategy is one way to meet NPS nutrient caps
- Focus on 5 priority implementation activities
- Need to build strong NPS Programs
- Limited Funds
- Service Delivery capacity





1. Aggressive Implementation of “Priority Ag Practices”

- Priority Practices: Cover Crops, Nutrient Management Planning, Livestock Exclusion, Conservation Tillage, and Riparian Buffers
- Estimate \$267 million for priority practices in Bay watershed: Achieves 60% of NPS nutrient reduction goal (9 million lb nitrogen reduction)
- Dedicated WQIF funds for Priority Practices
- Key to implementation: Soil and Water Conservation Districts
- Recent marketing study to determine better ways to reach the agricultural community and increase voluntary participation. Piloting outreach programs based on research.





2. Increase Compliance of Erosion and Sediment Control Programs Statewide

- 166 locally implemented Erosion and Sediment Control Programs, with DCR conducting Compliance Reviews and setting Corrective Action Agreements
- Only about 25% of local programs reviewed are consistent with State Law
- Program reviews now brought before SWCB
- Civil Enforcement Tool (since 7/1/05)
- Shorten Local Program Review Cycle (now 5 years)
- Goal : Full Local Compliance by 2010





3. Implement “new” Stormwater Management Program

- SW program consolidated into DCR in January 2005
- Regulatory action now underway that will:
 - set water quality & quantity criteria: contracting with Center for Watershed Protection to look at loading-based standards
 - define the framework for local program adoption
 - establish fee schedule





4. Improved Implementation of Chesapeake Bay Preservation Act

- Focus on areas of greatest shortcoming: Septic Pump-out; BMP maintenance and inspection
- CBPA "Phase III" - Incorporate Water Quality Protection into local zoning and subdivision ordinances; focus on reduction of impervious surfaces; Incorporate LID principles
- Assist with similar approaches outside of Chesapeake Bay Preservation Act area but within the Chesapeake Bay watershed.





5. Implement Offsets Program

- Nutrient Credit Exchange: Point Sources
- New or Expanding Facilities must offset new nutrient loads
- Ag Practice “baseline”: Implement “priority” practices before generating credits
- Urban Programmatic “baseline”: Meet program standards before generating credits





Existing NPS Funding Overview

- Recent Statewide BMP cost-share:
 - FY05 \$6 million
 - FY06 \$10 million
 - FY07 \$14 million
 - FY08 \$3.85 million
 - FY09 \$20 million
- TMDL Impaired Stream Clean-up (IPs)
 - FY07 \$2.65 million
 - FY08 \$3.05 million (+ \$2 M federal "319" funds)
- Significant program & staffing needs remain





Questions?

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