



Status of the Clean-up of the Chesapeake Bay and Other Virginia Waters

**Senate Finance Committee
Subcommittee on Natural Resources and Economic
Development
November 29 , 2006**

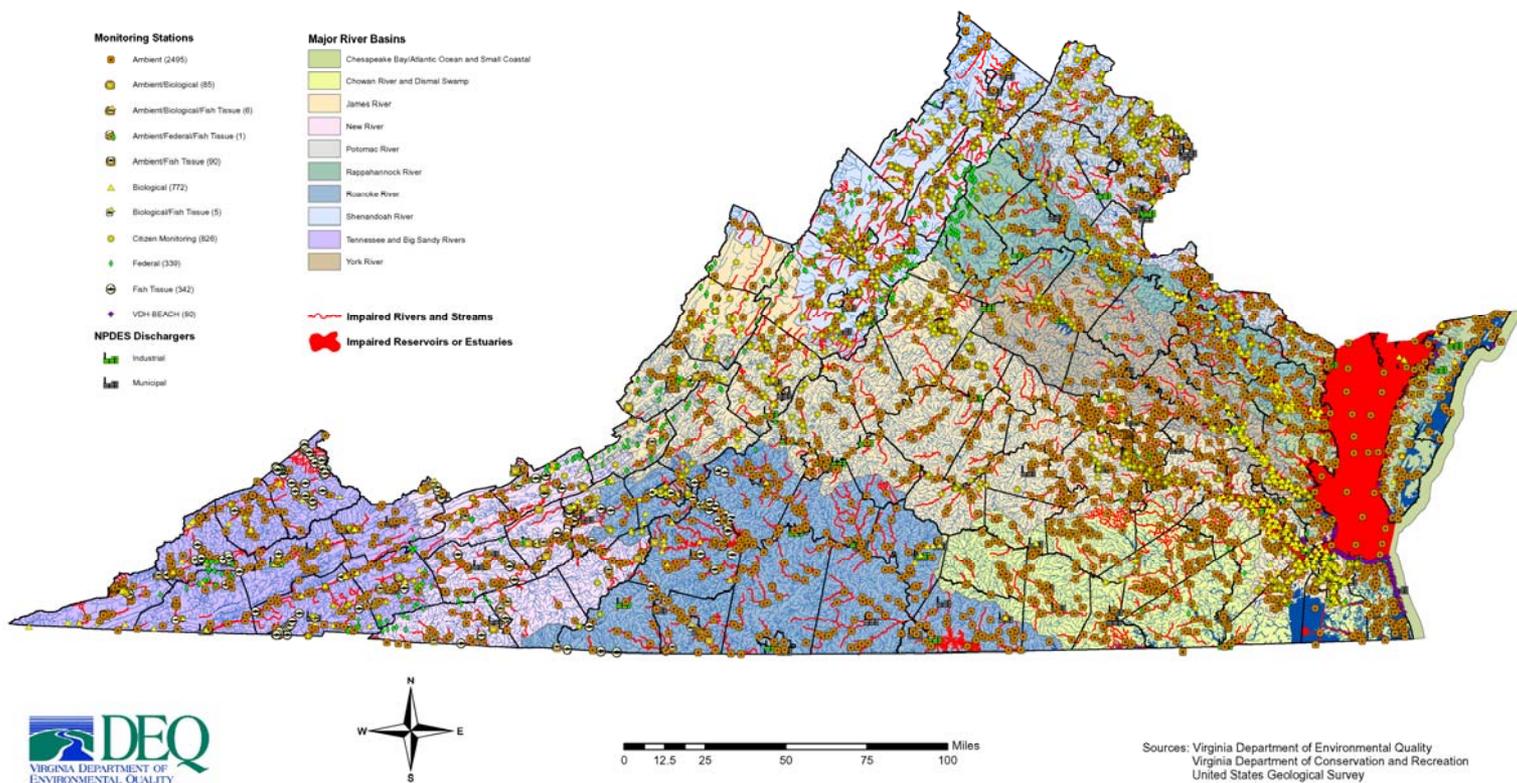
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2006 Section 303(d) Waters In Virginia





Impaired Area Identified Per Assessment Cycle by Waterbody Type

Waterbody Type	1996	1998	2002	2004	2006 ²
Rivers 50,357 (miles)	2,016	2,611	4,838	6,931	8,984
Lakes 116,058 (acres)	17,141	0	115,558 ¹	89,834	109,208
Estuaries 2,428 (sq. miles)	506	437	1,689	1,907	2,216

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 Impaired area in 2006 includes impaired areas from earlier assessments.

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Major Causes and Sources of Impairments

<u>Causes</u>	<u>Sources</u>
High Bacteria	Farm animals; Failing on-site systems; Leaking sewer systems; Pets; Wildlife
Low Dissolved Oxygen	High nutrients from wastewater discharges, agriculture, urban runoff, air deposition; Natural conditions
Impaired Benthic Organisms	Sediment from agriculture, development or coal mining; Nutrients from PS and NPS; Site specific - others
Contaminated Fish [PCBs or Mercury]	Legacy pollution of PCBs [spills, leaking transformers]; Mercury containing materials; Air deposition of mercury from coal combustion
Absence of Aquatic Plants - SAV	High sediments [from construction and eroding lands] and nutrients from PS & NPS
pH [high or low]	Nutrients from PS and NPS; Acid rain; Natural conditions

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Existing Clean-up Plans

TMDLs

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

Tributary Strategies

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

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De-listed Waters

- 262 Waters De-listed through 2005
- 49 River/Stream Segments
Submitted to EPA for Approval to
Delist in 2006
 - 381 miles of Rivers/Streams



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House Bill 1150

Chesapeake Bay and Virginia Waters Clean-up and Oversight Act



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“The Plan”

January 1, 2007

Updates every 6 months



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Key Words

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



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Additional Components

- 🐟 Disbursement plan
- 🐟 Potential Problem Areas
- 🐟 Risk Mitigation Strategy
- 🐟 State/Local Coordination
- 🐟 Alternative Funding Mechanisms
- 🐟 Legislative Actions



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What's New on the Point Source Side?



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Chesapeake Bay Watershed Point Source Regulations

- Water Quality Management Planning Regulation (9 VAC 25-720)
 - Sets nutrient waste load allocations for 125 significant discharges
- Regulation for Nutrient Enriched Waters and Dischargers Within the Chesapeake Bay Watershed (9 VAC 25-40)
 - Sets technology-based nutrient concentration limits for dischargers
- General VPDES Watershed Permit Regulation (9 VAC 25-820-10) – *not yet adopted*
 - Implements the Chesapeake Bay Watershed Nutrient Credit Exchange Program
 - Will aid in meeting PS nutrient load caps cost-effectively and as soon as possible; and, will provide foundation for market-based incentives to achieve NPS nutrient load goals



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Nutrient Trading

- Permit effective date: January 1, 2007
- 125 “significant” dischargers
- Compliance Plans, due by August 1, 2007
- Compliance dates of January 1, 2011 for each river basin
- 23 – 33% in capital costs

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Water Quality Improvement Fund Bay Grant Requests

- 64 grant applications received by DEQ
 - requesting \$628 million to install nutrient removal facilities
- Expect to sign grant agreements by early 2007 for 25 of these projects
 - requested \$273 million
 - 900,000 pounds/yr nitrogen reduction
 - 20,000 pounds/yr phosphorus reduction
- Remaining Facilities to request \$ later

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Water Quality Improvement Fund Point Sources

Grant Funds approved for Ches Bay: ~\$284 M

- Remaining funds from prior years [est.]: \$ 3.8
- FY06 mandatory deposits: \$ 30.3
- FY06 additional deposit: \$ 50.0
- FY 07-08 appropriation*: \$ 200.0

Grant Funds needed through 2025 for Ches Bay [est.]: ~\$750 M - \$1 B

- Cost range: depends on compliance dates, project scheduling, technology, construction market, trading, etc.
- 60 – 70% of funds needed by ~2011

* Note: Additional \$17 M appropriated in FY07-08 for water quality projects outside of Chesapeake Bay watershed

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Water Quality Improvement Fund “Southern Rivers” Point Sources

- The 2006 General Assembly included \$ 17 million in the WQIF for projects outside of the Chesapeake 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.
- Guidelines under development; expected early next year

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What's New on the NonPoint Source Side?



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Aggressive Implementation of “Priority Ag Practices”

- Cover crops, nutrient management, livestock exclusion, conservation tillage, riparian buffers
- \$267 million for 5 priority Ag. practices in Bay watershed: Achieves 60% of NPS nutrient reduction goal – 9 million pound nitrogen reduction
- Dedicated funds currently for Priority Practices
- Increased use of multi-year (3 year) contracts
- Soil and Water Conservation Districts (SWCD) are key implementers
- \$2 million in current budget will add 36 more local SWCD technical staff
- Marketing study to determine better ways to reach the agricultural community and increase voluntary participation



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Increase Compliance of Erosion and Sediment Control Programs Statewide

- Reduce flooding and sediment damage
 - To public and private property
 - Can impact drinking water supply
 - Damage water quality & threaten aquatic life
- 166 locally implemented Erosion and Sediment Control Programs
- DCR conducts Program Compliance Reviews and sets Corrective Action Agreements
- Only about 25% of local programs reviewed are consistent with state law
- Civil Enforcement Tool
- Shorten Review Cycle (currently 5 years)
- Goal : Full Compliance by 2010

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Stormwater Management Program

- SW program consolidated into DCR in January 2005 to improve effectiveness and streamline implementation
- Regulatory action now underway that will:
 - set water quality & quantity criteria
 - define the framework for local program adoption
 - establish fee schedule.



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Improved Implementation of Chesapeake Bay Preservation Act

- Focus on areas of greatest shortcoming: Septic Pump-out; BMP maintenance and inspection
- Incorporate Water Quality Protection into local zoning and subdivision ordinances; Remove barriers such as:
 - Curb/Gutter requirements
 - Parking
 - Street Width
 - Etc.
- Assist with similar approaches outside of Bay Act area.



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Existing NPS Funding Overview

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

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Questions?

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