



Maryland's
Bay Restoration Fund (BRF)

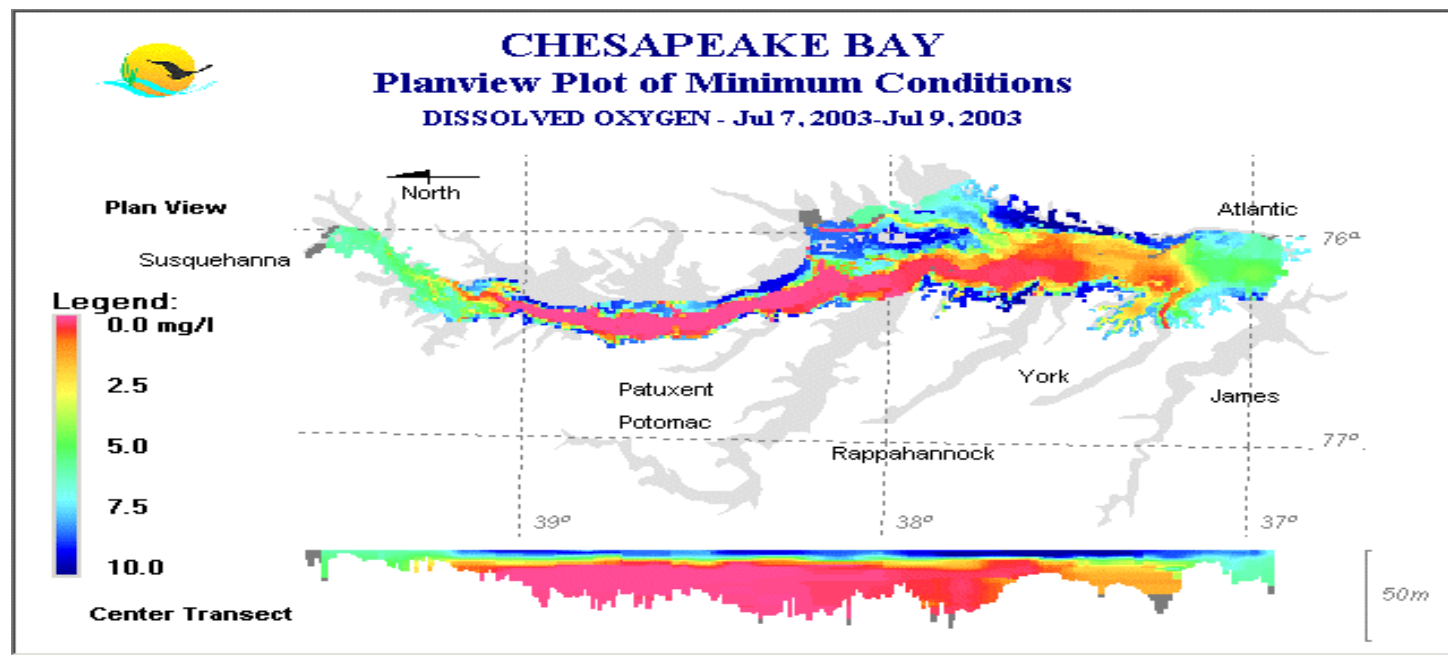
*Dr. Robert Summers, Deputy Secretary
Maryland Department of Environment*



2000 Chesapeake Bay Agreement

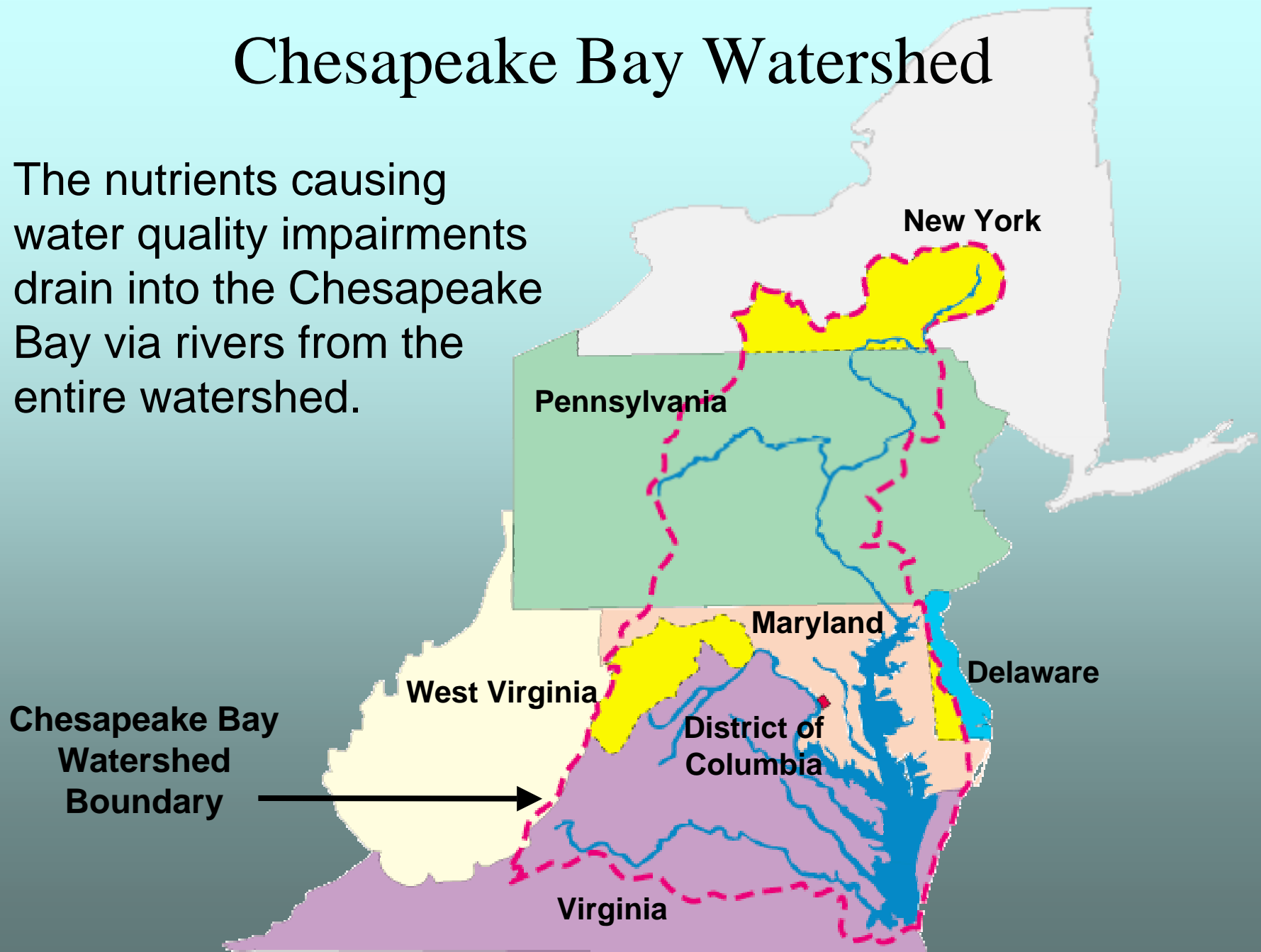
Bay and River Water Quality Commitment

By 2010, correct the nutrient- and sediment-related problems in the Chesapeake Bay and its tidal tributaries sufficiently to remove the Bay and the tidal portions of its tributaries from the list of impaired waters under the Clean Water Act.



Chesapeake Bay Watershed

The nutrients causing water quality impairments drain into the Chesapeake Bay via rivers from the entire watershed.



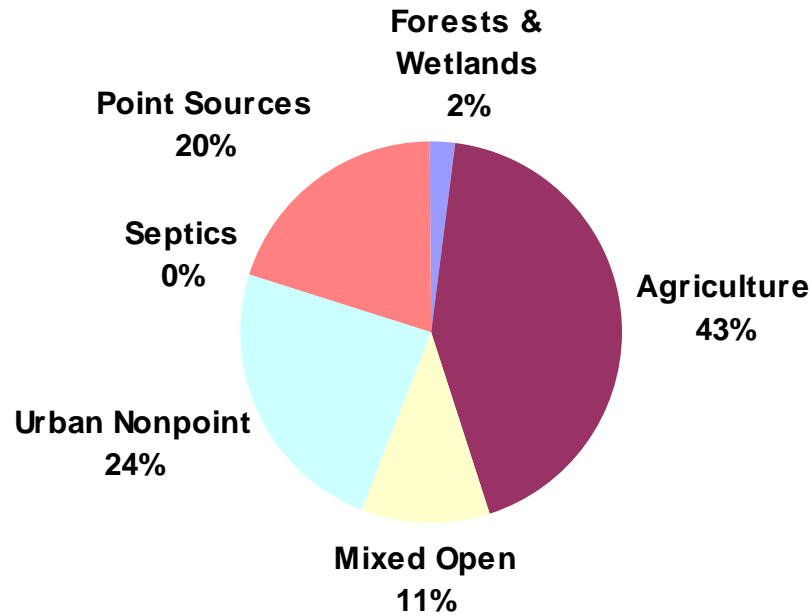


Cap Load Allocations by State

	Nitrogen Allocation (million pounds/year)	Phosphorus Allocation (million pounds/year)
PENNSYLVANIA	72	2.3
MARYLAND	37	2.9
VIRGINIA	51	6.0
DISTRICT OF COLUMBIA	2	0.3
NEW YORK	13	0.6
DELAWARE	3	0.3
WEST VIRGINIA	5	0.4
SUBTOTAL	183	12.8
CLEAR SKIES REDUCTION	-8	
BASIN-WIDE TOTAL	175	12.8

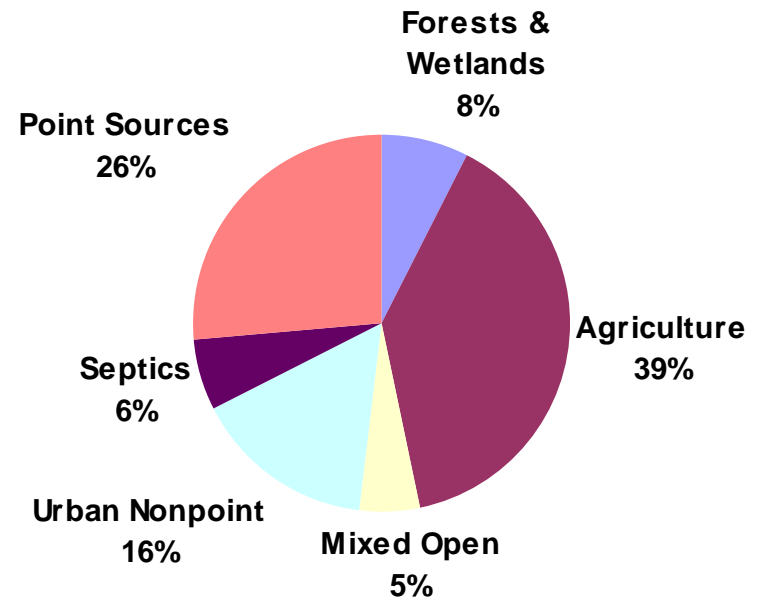


MD Nutrient Sources



Phosphorus

Nitrogen

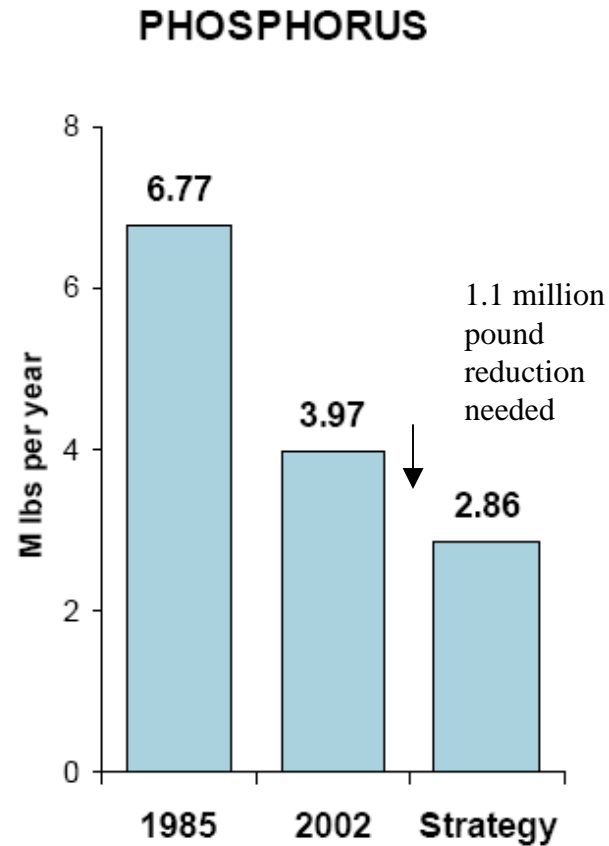
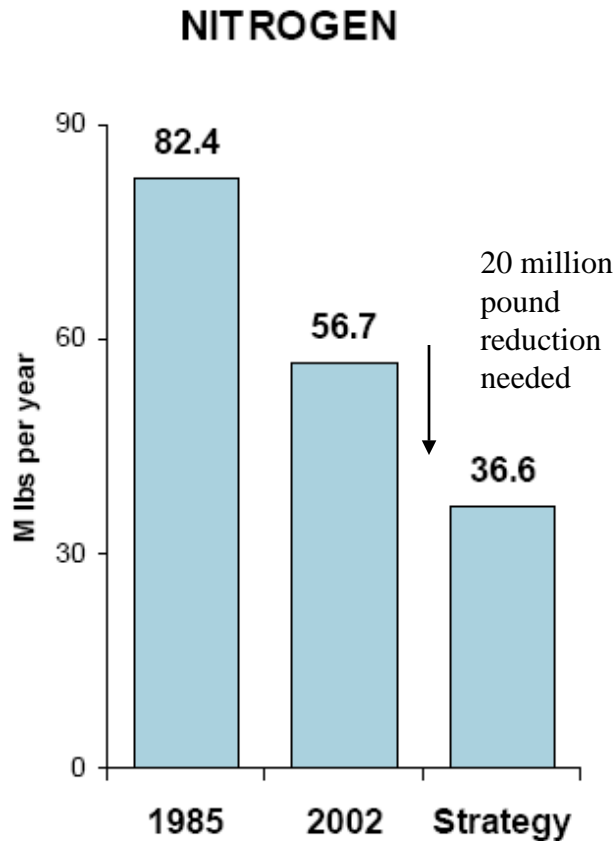




Maryland Annual Nutrient Loading Cap

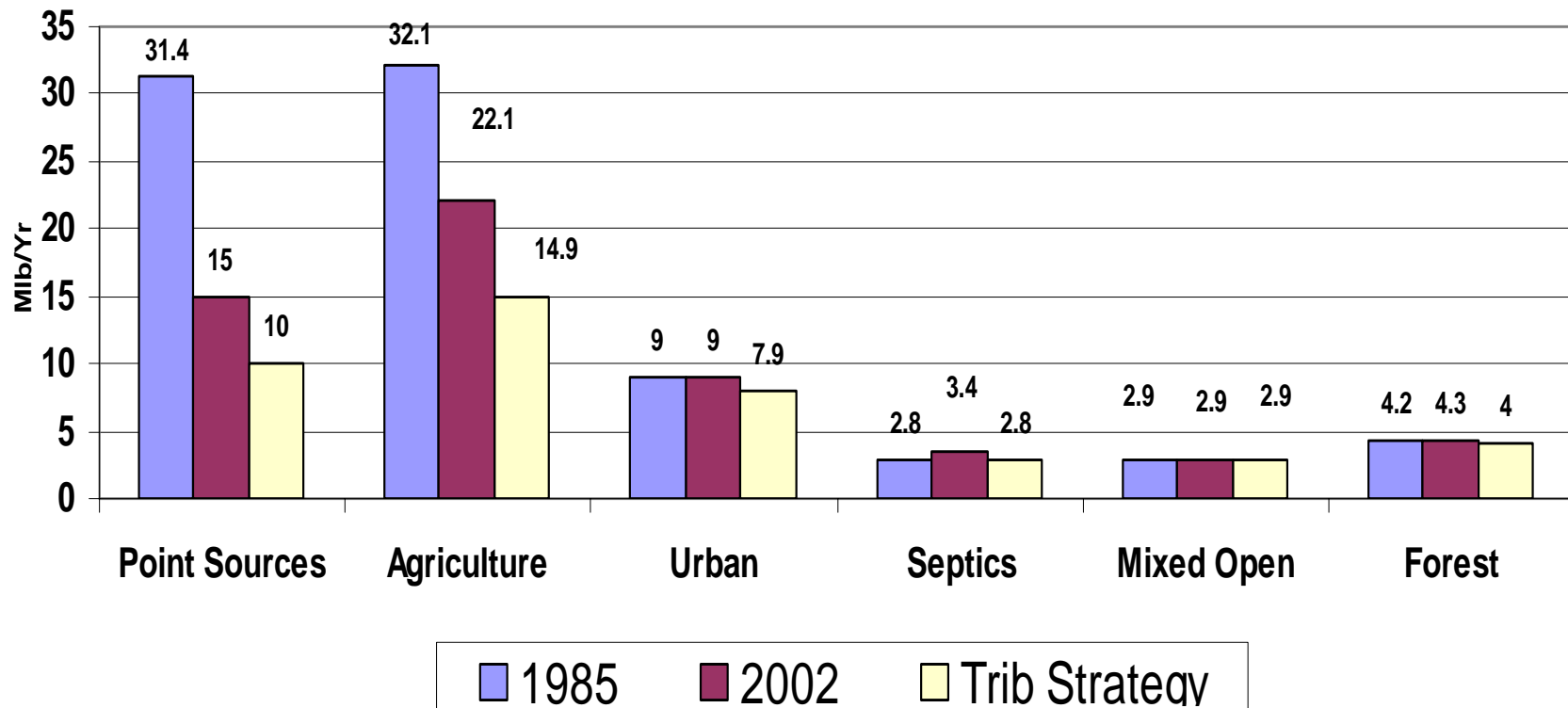
Nitrogen – 37.25 Million pounds

Phosphorus – 2.92 Million pounds





Nitrogen Loading from MD Sources

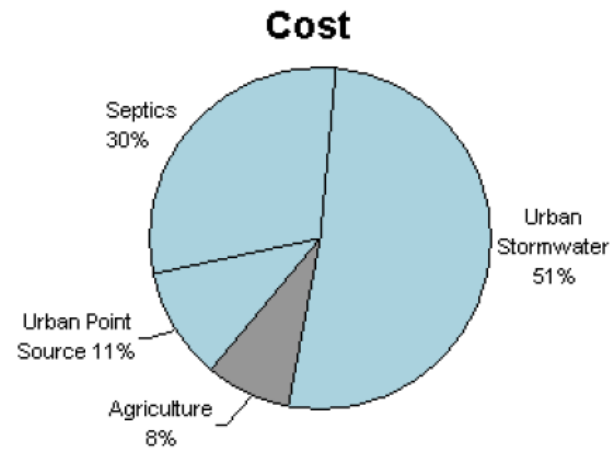




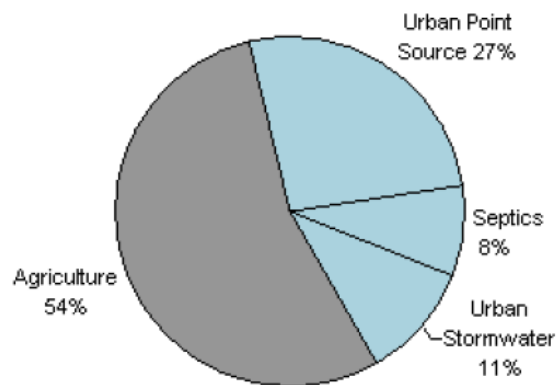
Cost-effectiveness

Total estimated cost
2004-2010 and beyond:

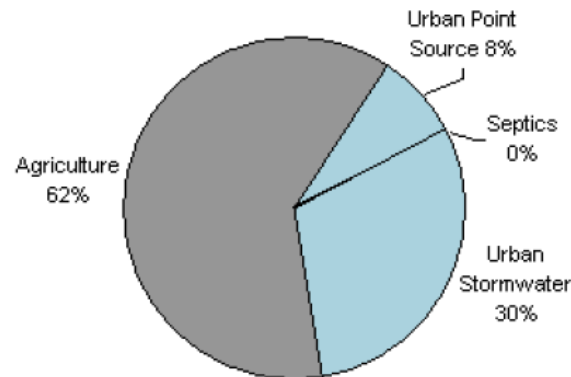
\$10 Billion



Nitrogen Reductions



Phosphorus Reductions





Maryland's Bay Restoration Fund

During the 2004 legislative session, SB 320 was passed creating the Bay Restoration Fund (BRF) to provide funds to allow Maryland to achieve additional nutrient reductions by:

- Providing grants to upgrade major WWTPs with Enhanced Nutrient Removal technologies,
- Providing grants to upgrade onsite septic systems in the critical areas with nitrogen removal technologies, and
- Providing grants to farmers for planting cover crops on agricultural land.



Maryland's Bay Restoration Fund

Enhanced Nutrient Removal (ENR)

Defined as a technology that is capable of achieving WWTP effluent quality of:

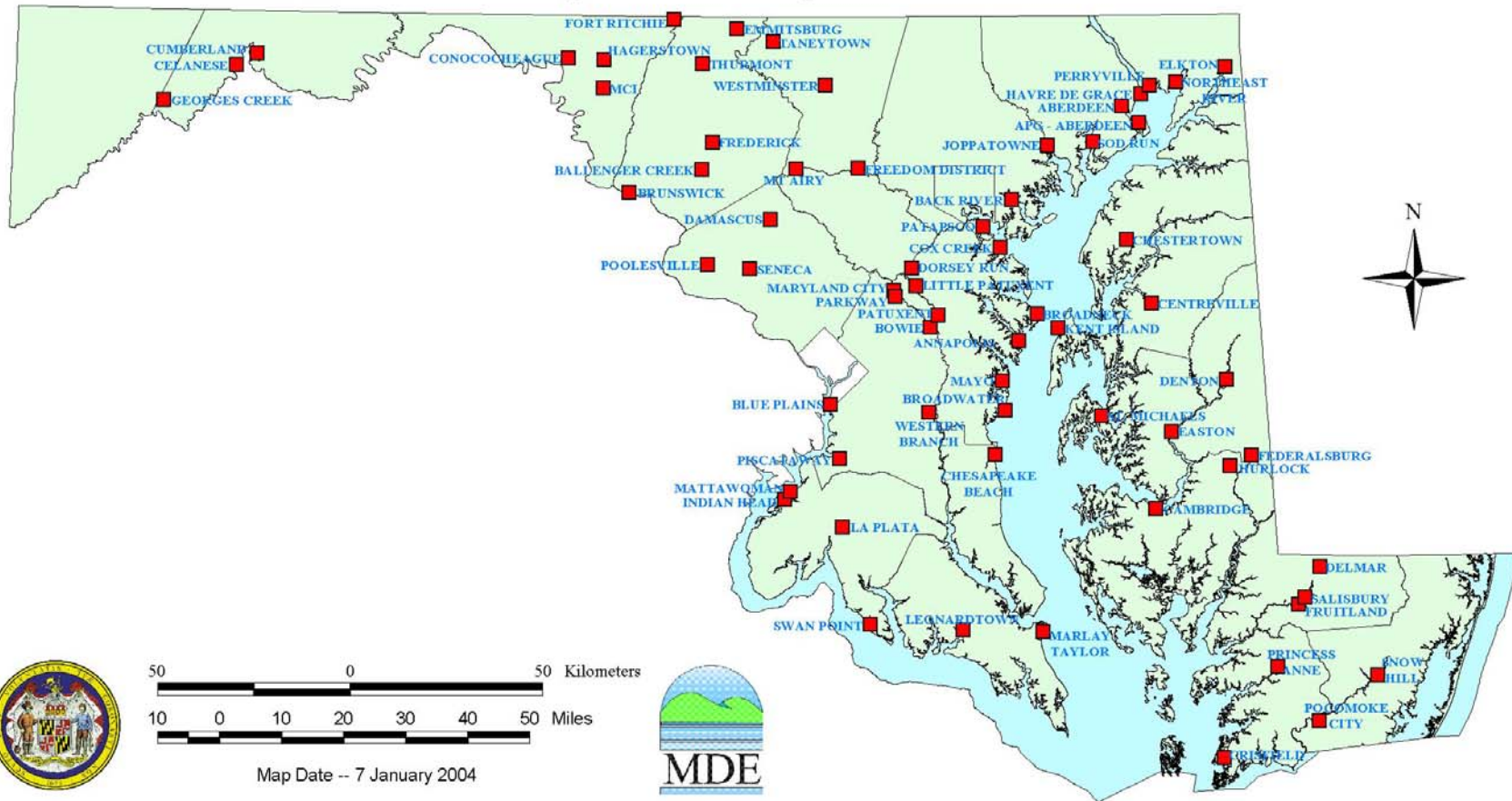
- 3 mg/l total nitrogen (TN) & 0.3 mg/l total phosphorus (TP) (calculated on an annually averaged basis), or
- the lowest levels of TN and TP that MDE determines is practicable for the WWTP facility.



Maryland's ENR Upgrade Goals

- First upgrade the 66 major WWTPs discharging to the Chesapeake Bay to reduce the nitrogen loading by an additional 7.5M lbs/yr, and phosphorus loading by 0.26M lbs/yr. These 66 major WWTPs treat 95% of the total Maryland sewage flow.
- Complete the ENR capital upgrades by FY 2012 (aggressive).
- Next upgrade additional WWTPs based on ENR cost effectiveness, water quality benefit, readiness to proceed and availability of funding.

Maryland's Major Wastewater Treatment Plants in the Chesapeake Bay Watershed





Maryland's Bay Restoration Fund

BRF Fee

- A fixed \$2.50/month (\$30/yr) per household BRF fee collected with the water/sewer bills, effective 1/1/05.
- A \$2.50/month per equivalent dwelling unit (EDU) BRF fee for commercial and industrial users collected with the water/sewer bills (250 gallons/day flow = 1 EDU), effective 1/1/05.
- A \$30/yr BRF fee per users of an onsite sewage disposal (septic) system or holding tanks to be collected by the County, effective 10/1/05.



Maryland's Bay Restoration Fund

BRF (WWTP) Fee Applicable to:

- Wastewater treatment plants with NPDES discharge permits and State groundwater discharge permits (with some exceptions)
- Industrial treatment plants with NPDES discharge permits and State groundwater discharge permits (with some exceptions)



Maryland's Bay Restoration Fund

Facilities exempt from BRF (WWTP) Fee

- Facility does not discharge nitrogen or phosphorus as determined by the MDE.
- Facility currently meets the 3 mg/l nitrogen and 0.3 mg/l phosphorus treatment levels and has not received any State or federal grant.
- Facility discharges non-contact cooling water, water from dewatering operations, or reclaimed wastewater from a facility whose users pay into the fund and the discharge does not result in a net increase in nutrient loading.



Maryland's Bay Restoration Fund

Others exempted from BRF Fee

- County, Municipal Corporation, Bi-County or Multi-County Agency under Article 28 or 29 of the Code, Housing Authority under Article 44A of the Code, School Board, Community College, or any other Unit of the County or Municipal Corporation.

(Federal & State Government not exempt)



Maryland's Bay Restoration Fund

Financial Hardship Exemption

- The law allows, subject to approval by the Maryland Department of the Environment, the billing authority to establish a program to exempt certain “residential” dwellings that demonstrate substantial financial hardship.

(As of 12/31/2006, 24 billing authorities have developed financial hardship exemption programs)



Maryland's Bay Restoration Fund

Estimated Annual Revenue

- WWTP Fund: \$60 million/yr from users of wastewater treatment plants and industrial dischargers

Funds will be used to back revenue bonds to fund \$750 million in ENR upgrades at the 66 major WWTPs.

(Current ENR cost estimated to be over \$1 Billion)

- Septic Fund: \$12 million/yr from septic system users.

60% (\$7M/yr) for septic system upgrades

40% (\$5M/yr) for cover crops



Maryland's Bay Restoration Fund

Eligible Uses of the WWTP Fund

- Grants to WWTP owners of up to 100% of eligible cost of planning, design and construction of ENR upgrade (from BNR to ENR) for flows up to the “approved” design capacity.
- Grants of up to \$5M/yr for existing sewer system rehabilitation (FYs 2005 - 2009).
- Grants to WWTP owners of up to 10% of annual BRF WWTP fee revenue to off-set additional ENR operations and maintenance costs (Starting FY 2010).



Maryland's Bay Restoration Fund

BRF (Septic) Fee Billing

- Responsibility of each County
- \$30/year per user of a septic system system
- Fee effective October 1, 2005



Maryland's Bay Restoration Fund

BRF (Septic) Fee Billing

Key Issue: Identifying Septic System owners

Sources of Data

- State Department of Assessments and Taxation (SDAT)
- Maryland Department of Planning (MDP)
- Local Health Department
- Counties and Municipalities



Maryland's Bay Restoration Fund

BRF (Septic) Fee Billing Options

Recommendation to Counties provided by the
BRF Advisory Committee (May 2005)

- A. Collect BRF septic fee along with property tax
(*starting July '05*), or
- B. Develop separate BRF Septic fee billing system

(Most Counties opted for option A)



Maryland's Bay Restoration Fund

Eligible Uses of the Septic Fund

- With priority given to onsite sewage disposal systems (septic systems) in the critical areas, provide grants/loans of up to 100% for the -
*cost to upgrade septic systems with the best available technology for nitrogen removal, or
cost difference between a conventional system and a system that uses best available technology for nitrogen removal*
- Provide grants to farmers to implement the cover crop program (to be managed by the Maryland Department of Agriculture)



Maryland's Bay Restoration Fund

Allowance for Administrative Costs

- For BRF Fee billing and revenue collection
 - Local governments/billing authorities – up to 5%*
 - State Comptroller's Office – up to 0.5%*
- To implement the ENR & Septic Programs (MDE)
 - Up to 1.5% of WWTP Funds*
 - Up to 8% of Septic Funds*
- To implement the Cover Crop Program (MDA)
 - Up to 1.5% of Septic Funds*



Maryland's Bay Restoration Fund

Advisory Committee

- 18 members representing state agencies, the legislature, local governments, and environmental and business organizations.
- Help Counties identify users on septic systems and recommend methods for collecting the BRF Septic fee.
- Perform cost analysis of nutrient removal at WWTPs and make recommendations to improve the fund effectiveness.
- Make recommendations on the appropriate BRF fee to be assessed in FY 2008 and beyond.



Maryland's Bay Restoration Fund

Current BRF Program Status

WWTP Fee Revenue Collected

FY 2005:	\$ 7.02M
FY 2006:	\$57.69M
FY 2007:	\$30.65M (thru 12/31/06)

SEPTIC Fee Revenue Collected

FY 2005:	\$0.26M
FY 2006:	\$7.97M
FY 2007:	\$7.11M (thru 12/31/06)



Maryland's Bay Restoration Fund

Current BRF Program Status

Grants Awarded (thru 12/31/2006)

ENR Projects:	\$69.2M (21 projects)
Sewer Rehab Projects:	\$ 4.7M (6 projects)
Septic System Projects:	\$ 9.0M (10 entities)
Cover Crop (MDA):	\$ 2.7M



Maryland's Bay Restoration Fund

Current BRF Program Status

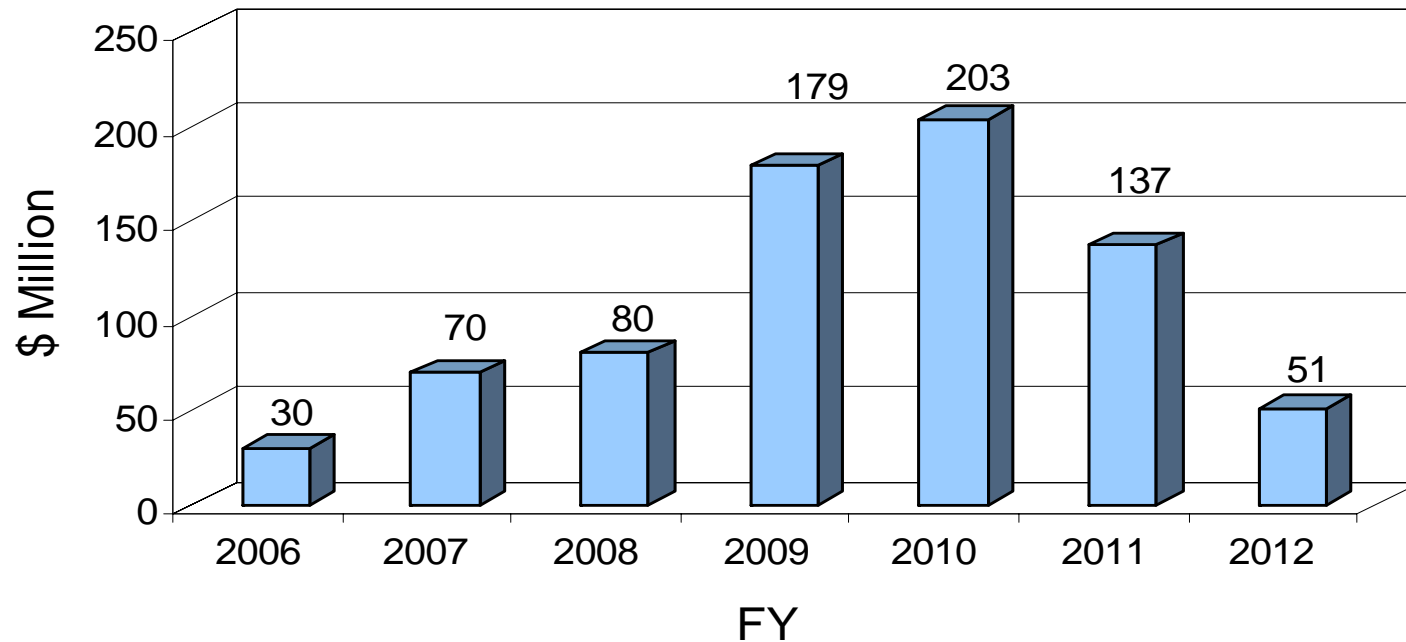
WWTP ENR Upgrades (as of 12/31/2006)

Completed:	2 projects
Under Construction:	10 projects
Design:	12 projects
Planning:	23 projects
Pre-Planning:	<u>19 projects</u>
Total	66



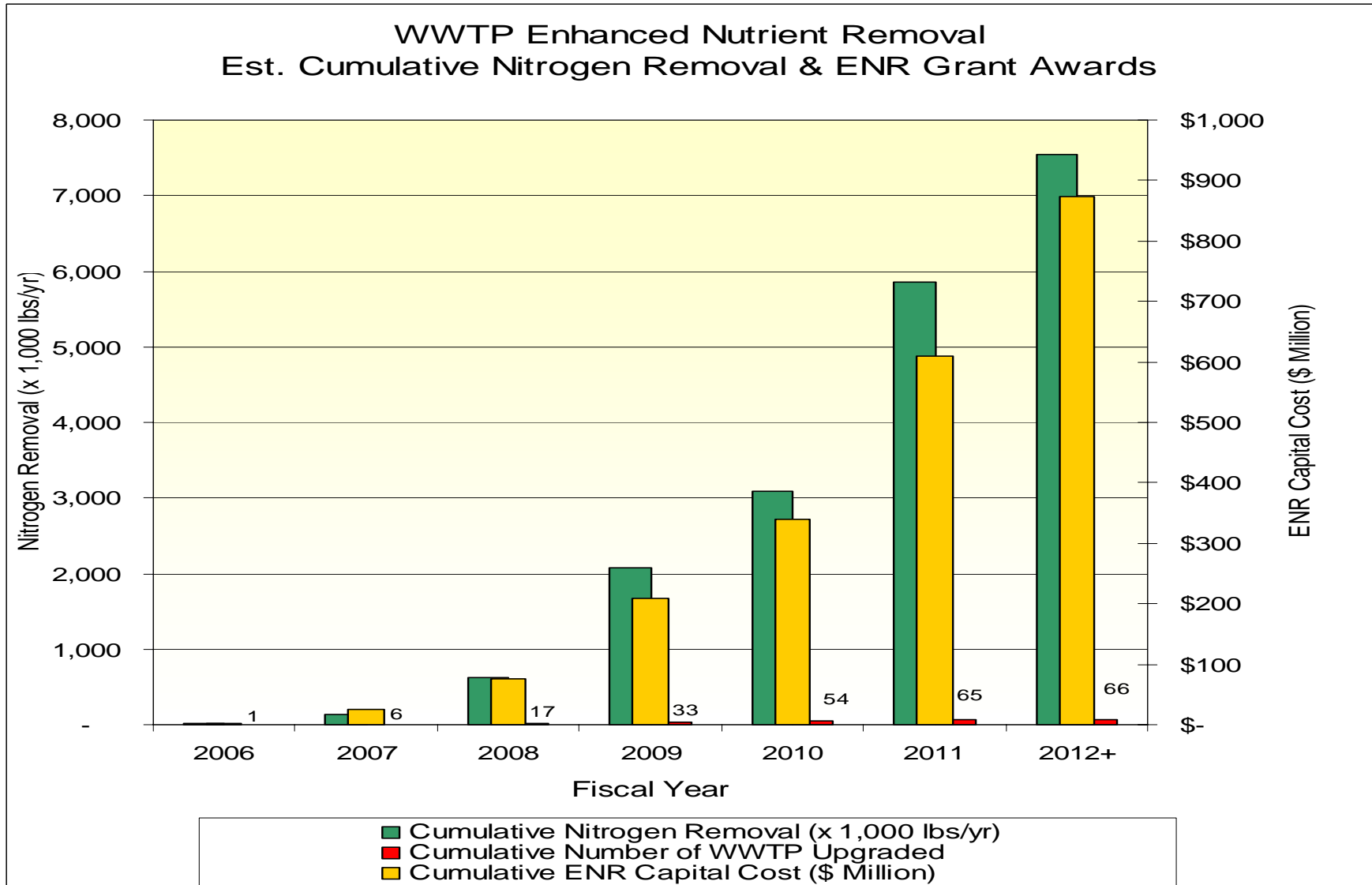
Maryland's Bay Restoration Fund

Projected Grant Awards for ENR Upgrades





Maryland's Bay Restoration Fund





Maryland Department of the Environment

For additional information visit MDE
website at: www.mde.state.md.us
or call 410-537-3119