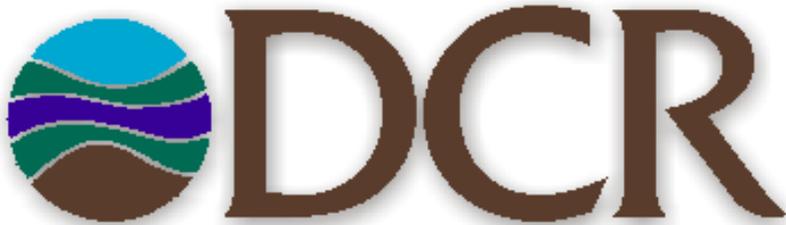


Presentation to the HJR-640 Committee

By

Joseph H. Maroon

July 20, 2005



Department of Conservation & Recreation

CONSERVING VIRGINIA'S NATURAL & RECREATIONAL RESOURCES

State Parks • Soil and Water Conservation • Natural Heritage

Outdoor Recreation Planning • Land Conservation

Dam Safety and Floodplain Management

Chesapeake Bay Local Assistance

www.dcr.virginia.gov

What Is Nonpoint Source Pollution?

- NPS pollution comes from thousands of diverse sources (agricultural fields, lawns, streets, construction sites, etc.)
- Most difficult source to control
- Multiple strategies to control
- Mix of voluntary and regulatory programs
DCR is the state's lead nonpoint source pollution control agency

Nonpoint Source Pollutants

- **Nutrients**

- Fertilizers
- Septic systems
- Pet and animal waste
- Yard wastes and debris



- **Sediment (silt, sand, gravel)**

- Construction sites
- Roadways
- Suburban lawns and gardens
- Stream banks



Nonpoint Source Pollutants

- **Bacteria**

- Septic tanks
- Sewer lines
- Boating waste disposal
- Pet and animal waste



- **Toxic contaminants**

- Oil, grease and gasoline from roadways
- Home, garden and lawn chemicals



Why Focus on Agricultural Nutrient Reductions?

- House Bill 2777 and Senate Bills 810 & 1235 require non-point measures to focus on agricultural sources.
- Contributes largest amount of Phosphorus (41%) & second most amount of Nitrogen (29%) to Bay and Virginia Tributaries.
- Major contributor to Virginia's "impaired" waters.
- Among most cost-effective measures ("bang for buck")
- State programs can benefit the farm and improve land and water quality.

Recent Ag Quotes

Cattle fenced out of South River:

“Honestly, It’s a win-win for me. I get better use of my pasture now. No question I’ve got healthier cattle now. If (conservation programs) didn’t benefit me, I’m sure I’d be thinking about the Bay a lot less.” [Staunton News Leader, 2005]

Installed pit for managing manure:

“Every day we were having to scrape our barn lots and spread the manure on our fields, even if they were covered in snow. Storing our manure has cut our commercial fertilizer costs by 30 to 50 percent. Now we can spread the manure when we are ready, and we aren’t losing as many nutrients by leaving it on the ground before we actually use it. ” [The Winchester Star, January 31, 2005]

Virginia Farm Bureau Federation, July 14, 2005

“Virginia’s agriculture and forestry industry is dependent upon natural resources. Consistent funding of both agricultural cost-share programs and the Reforestation of Timberland program is imperative as Virginia continues to address water quality initiatives.”

Why Today's Discussion is not about addressing Urban NPS Sources?

- Urban/Suburban/Rural Developed Lands are significant sources: Phosphorus 32%; Nitrogen 23%
- Not main focus of Ches. Bay Commission report
- Many improvements (retrofits) involve substantial costs; others can be more cost-effective.
- While state share is significant, majority of costs will be borne by local governments and development
- Progress being made through existing regulatory programs (Stormwater Management Program, Erosion & Sediment Control, Bay Preservation Act) and limited grant funding.

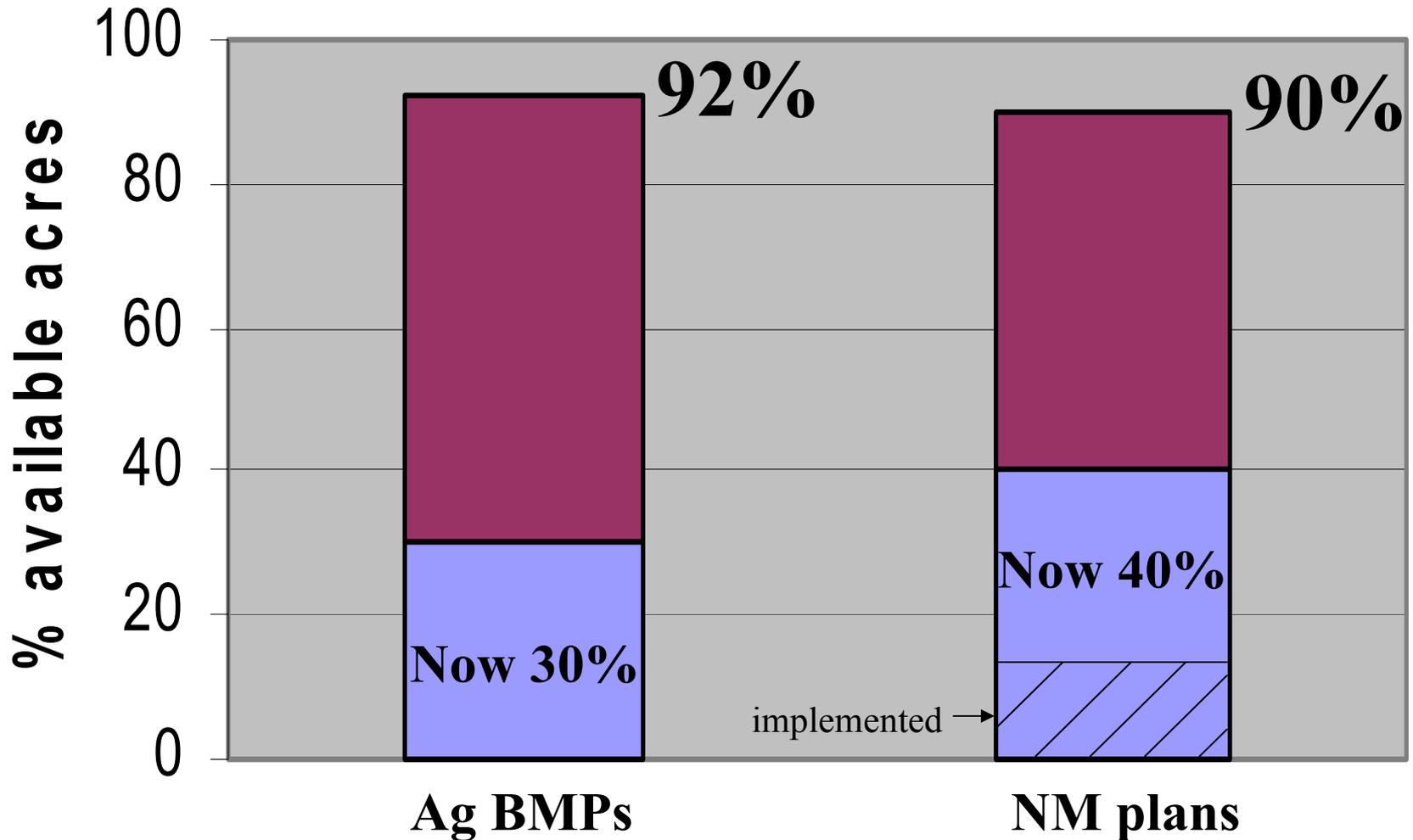
Agricultural Reductions

What Must Be Done?

- Long-term substantial and sustained funding for Non-Point Practices and Programs and for increased state/local staffing & private involvement to deliver the programs.
- Focus must be on getting better results: As of July 1, greater focus on cost-effective BMPs & targeting of BMPs to correct impaired streams (TMDLs).
- Change state's traditional ag. cost-share program from "education/demonstration" to "implementation".
- New/expanded strategic WQ initiatives (diet & feed mgt., litter transport, animal waste alternative uses).
- Unprecedented levels of participation requires active outreach to farm community. (47,600 VA farms)

Agricultural Reductions

What Must Be Done?



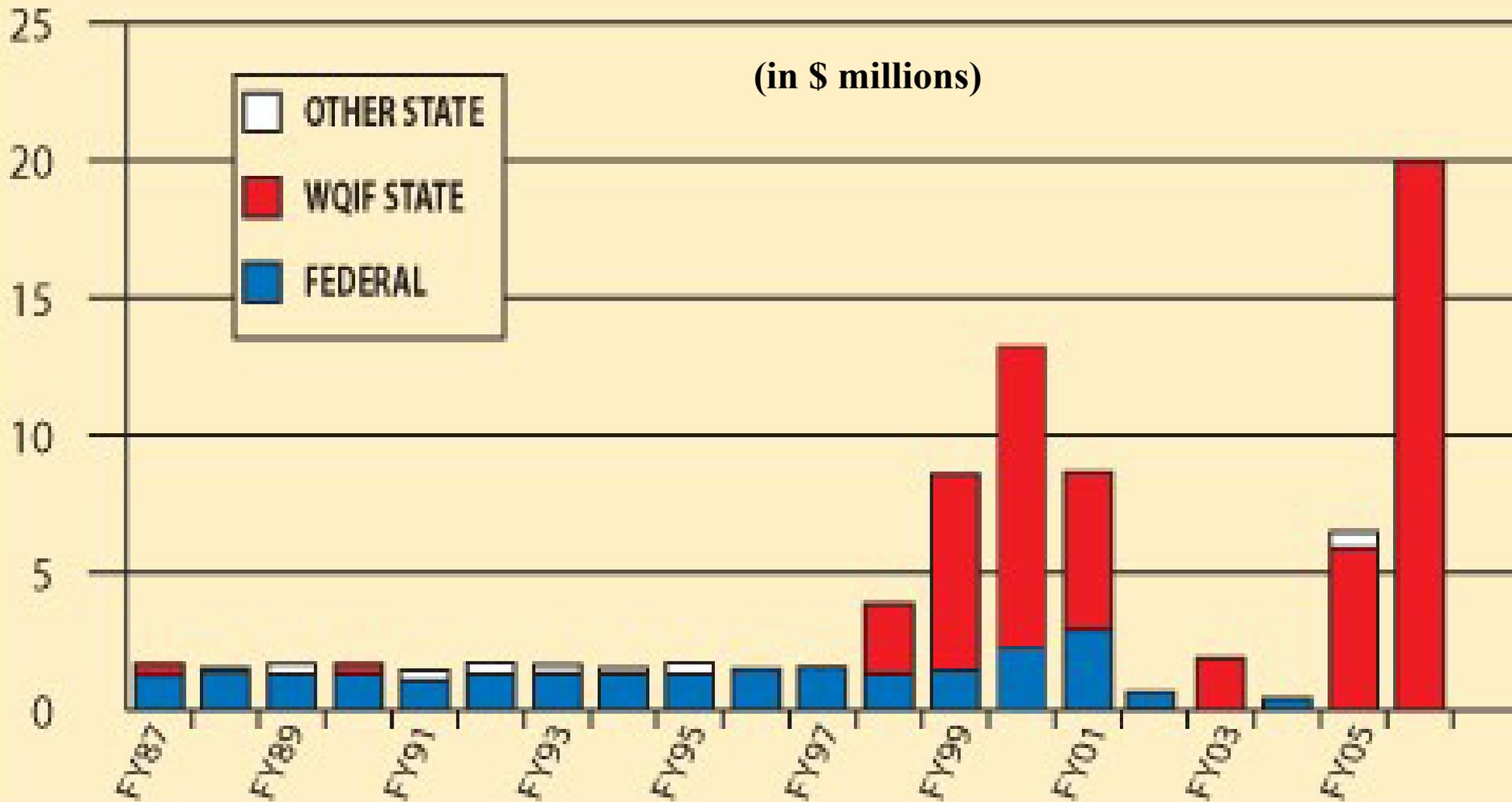
Virginia's "Clean Water" Cost

<u>Actions</u>	<u>State Cost (2005-2010)</u>
CHESAPEAKE BAY AND TRIBUTARIES	
Upgrade Treatment Plants	\$500 MILLION
<i>Cost Share Agricultural Best Management Practices (BMPs)</i>	<i>\$580 MILLION</i>
Implement BMPs on non-agricultural lands	\$660 MILLION
VIRGINIA'S "SOUTHERN RIVERS" (OUTSIDE THE BAY WATERSHED)	
<i>Implement BMPs for stream and river clean-up plans ("TMDLs")</i>	<i>\$600 MILLION (not 2010)</i>
TOTAL STATE COST	\$2.34 BILLION

Virginia Agricultural BMPs

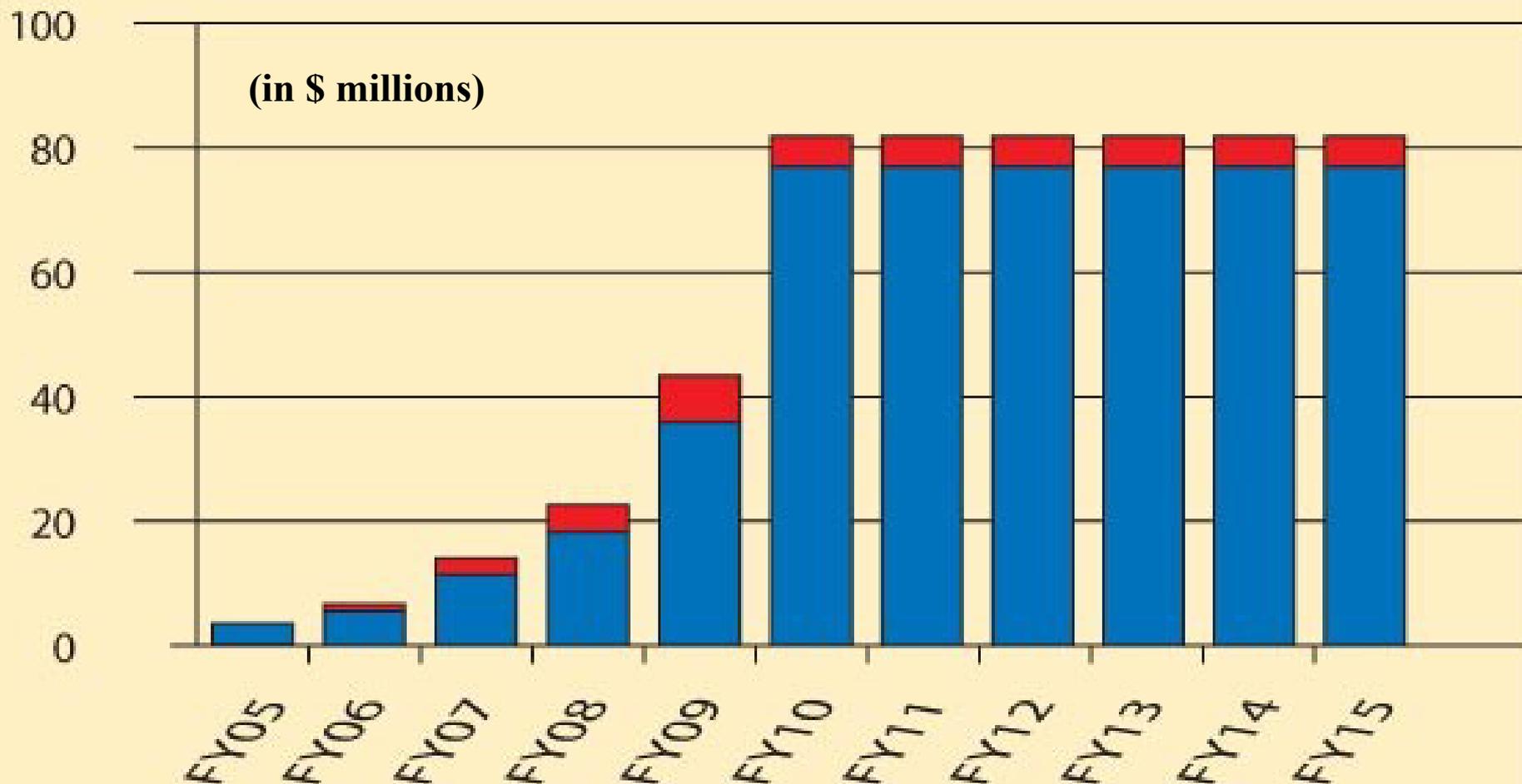
- Cover Crops
- Continuous No-till System
- Nutrient Management Planning
- Filter Strip
- Riparian Forest Buffer
- Stripcropping Systems
- Livestock Exclusion
- Alternative Water System
- Stream Protection
- Stream Crossing & Hardened Access
- Animal Waste Control Facility
- Sinkhole Protection
- Loafing Lot Management System
- Permanent Vegetative Cover of Critical Areas

Historic funding for Ag Cost-Share has limited our progress



What will it cost?

Tributary Strategies Ag BMP Costs -\$ 580 M



What will it cost?

Southern Rivers TMDL BMP Costs - \$ 600 M

- At least 40% WQIF nonpoint funds directed to Southern Rivers (10.1-2129.A.1)
- 306 TMDLs on list of nonpoint pollution impaired stream segments
- Funding will be needed as detailed TMDL Implementation Plans are completed
- Declining federal funds have provided the primary source of funding for TMDL implementation

Relating Bay Commission & VA Priority Practices

NPS Practices	CBC Choices For VA	VA Trib. Strategies		
		Target (acres)	Cost (millions)	% goal Nit./Phos.
1. Animal Diet & Feed Management	Poultry	poultry/swine dairy	TBD	TBD
2. Traditional Nutrient Management	820,000 ac	1,009,595 ac	\$ 14	20/13
3. Enhanced Nutrient Mgmt (Yield Reserve)	1.5 million ac	10,410 ac	\$ 0.1	<1/<1
4. Conservation Tillage	290,000 ac	501,304 ac	\$ 11	6/19
5. Cover Crops	364,000 ac	413,282 ac	\$ 43	10/<1
6. Riparian Buffers		312,534 ac	\$ 124	15/12
7. Livestock Exclusion		916,190	\$ 190	9/14

Virginia Priorities

New and Expanded Initiatives

- Promote and Target Cost-Effective BMPs
- Expand Diet & Feed Management to 100 Dairy Operations (with VA Tech)
- Seek Increase In Poultry Phytase Use By Integrators
- Expand Poultry Litter Transport With Industry
- Alternative Use for Animal Waste
- Pilot Enhanced Nutrient Management (Yield Reserve)
- May Extend Contracts on Proven Cost-Effective Practices
- Employ New and Proven Approaches (“One Size Will Not Fit All”)
- Improving Outreach to Farmers

Keeping VA's Commitments

Long-Term NPS Goals Involve Several Actions:

- Getting as many conservation practices installed as possible between now and 2010
- NPS implementation & staffing will need significant ramping-up over the next 5 years
- Demonstrate to EPA that the mechanism is in place by 2010
- Completing the work to install practices by 2015
- Keeping the practices installed and effective in-the-field
- Requires on-going state funding beyond 2015
- Continued mix of voluntary incentives and regulatory programs